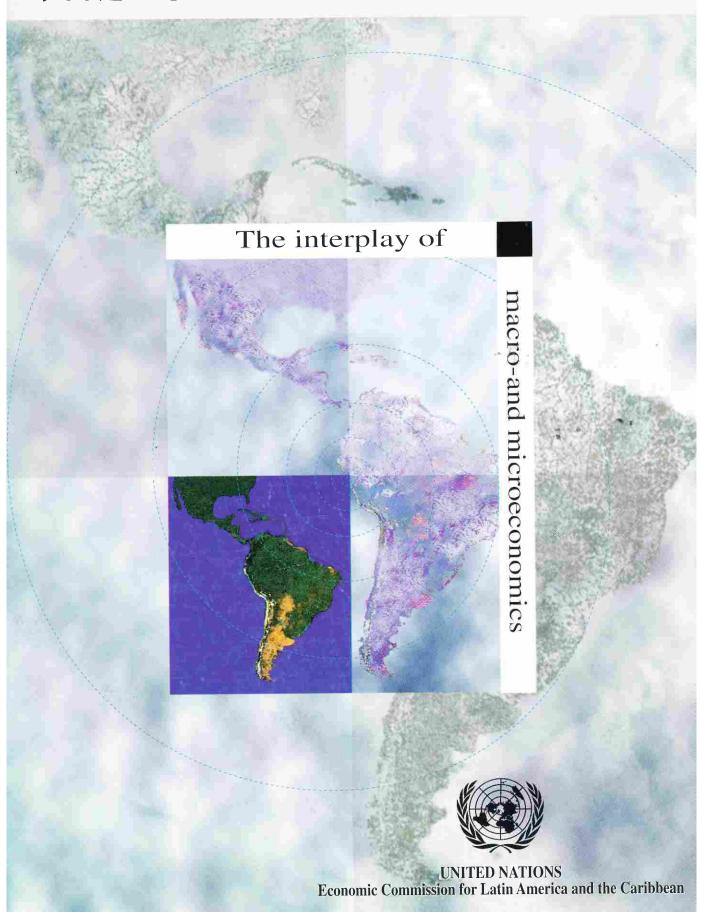
## STRENGTHENING DEVELOPMENT



# STRENGTHENING DEVELOPMENT. THE INTERPLAY OF MACROAND MICROECONOMICS



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#### INTRODUCTION

The 1980s can best be understood as a watershed in the experience of the Latin American and Caribbean economies. Despite marked differences in certain features and consequences of the change, all of the countries, some earlier than others, underwent a fundamental transformation in the scope and content of their economic policies and strategies and in the bases of their productive systems. To sum up the changes by saying that the countries shifted from an inward- to an outward-looking strategy, or that they moved from a phase of "dirigisme" to one focused on market signals, would be to oversimplify the peculiar nature of a highly complex process of change that has not yet run its course. The reforms initiated in the 1980s -and even earlier in a few countries-have taken a wide variety of forms that differ in the nature of the policies implemented and the results obtained; yet everywhere a turning-point can be identified.

The aforementioned reforms, whose detonator was the foreign debt crisis, are the consequence of the monumental effort carried out by all countries, each according to its means, to adapt their economies to the new conditions created by circumstances both internal (the gradual loss of dynamism of a certain mode of development) and external (economic globalization) in nature.

Today, halfway through the 1990s, enough time has elapsed that answers can be attempted to some of the chief questions raised during this period, which has been marked by traumatic adjustment but also by solid achievements. First: How should the period be assessed? Is the region's economy on a sounder footing now than it was before 1982? Second: Was the choice of policies that shaped a new pattern of development the right one? And, perhaps the most important question of all: What corrections to the choice of policies would be advisable to strengthen the development process?

This document attempts to provide answers to these questions. The first section presents an assessment of the economic reforms undertaken to date, weighing advances against shortcomings and factoring in the lessons gained from the great variety of experience accumulated. The second section offers some reflections on the direction that ongoing reforms should take, in the secretariat's view. Under that heading, in overly broad order to avoid generalizations, attention has been focused on the twin goals of securing economic stability while at the same time stimulating growth. This in turn entails an examination of two specific subject areas: development of investment and

Empirical evidence for the assessment presented in this document can be found in: ECLAC, The Economic Experience of the Last Fifteen Years: Latin America and the Caribbean, 1980-1995 (LC/G.1925(SES.26/17)), Santiago, Chile, 1996.

development of production. The key elements in these two areas -saving/investment and productivity/ technological progress- are analysed in terms of the interplay of macroeconomic scenarios, institutions and microeconomic behaviour.

#### SUMMARY AND CONCLUSIONS

- 1. During the present decade, the performance of the region's economies has been shaped by the consequences of earlier adjustments and the results of the reform processes initiated in the 1980s. Although differences from one country to the next suggest caution about drawing general conclusions, the time that has elapsed and the extraordinarily rich body of experience that has been garnered now make it possible to identify areas of progress and potential pitfalls for development over the long term.
- Public policy measures have taken the form of adjustment programmes associated with structural reforms. Although different in many respects, all the reform processes have pursued the goals of macroeconomic stabilization international competitiveness through fiscal discipline, trade liberalization and financial deregulation, the freer functioning of market mechanisms, greater reliance on private investment and new incentives and regulatory frameworks. Altogether, they constitute a fundamental transformation of the regional development process.
- 3. As a result of these measures, the countries of the region have advanced on both the macro and microeconomic levels. On the first of these levels, they have made progress in price stabilization and, to a lesser degree, in economic growth. This achievement has been aided by fiscal and monetary discipline and, beginning in 1991, by a heavy influx of external capital attracted in part by favourable yields and

- also by the confidence inspired by macroeconomic management, progress in structural reforms and the consolidation of democratic political regimes. On the other hand, most of the region's economies have grown at moderate rates, which, while respectable, are lower than in the past and insufficient to redress technological and social lags.
- The type of productive restructuring that resulted from the adjustments, the shifts in relative prices and the liberalization of trade have so far failed to generate enough job opportunities or sufficient progress in reducing social inequalities; in many countries, in fact, social equity indicators have not recovered to pre-crisis levels. While the sharp drops in employment and increased inequality and poverty caused by the recession and the subsequent adjustments have been reversed (though not completely surmounted), in the current phase of growth, the number of quality jobs has increased very slowly, and the wage differential between jobs requiring different levels of training has tended to widen.
- 5. In this regard, public policies designed to alleviate the most serious manifestations of deprivation and marginalization have up to now suffered from insufficient capacity and limited efficacy; social spending has been constrained by efforts at budgetary discipline, and social policy management has not progressed with the speed and thoroughness required. The social panorama, then, is far from encouraging and includes latent problems

that may make it difficult to sustain the development process.

- 6. Moreover, the conditions under which the economies are evolving leave them vulnerable. In most cases, macroeconomic stability has been achieved at the cost of large balance- of-payments current account deficits, financed at times with volatile capital likely to withdraw at the appearance of any circumstance that dampens investor confidence.

  7. The aftermath of the debt
- The aftermath of the debt crisis continues to limit the scope of public action. In addition, various episodes have revealed inadequacies in two structural dimensions of macroeconomic stability. One matter of concern is the weakness of the financial systems in some countries; the spread of financial crises affecting some of the large banking institutions has necessitated rescue operations at a high fiscal cost. Moreover, the fiscal stability achieved rests in many economies on somewhat shaky foundations. Fiscal capacity for public saving is therefore limited, and this, combined with the inelasticity of private saving in response to conventional stimuli, prevents domestic saving rates from rising.
- 8. One of the striking features of the 1980s, in fact, was that, to one degree or another depending on the country, rates of saving and rates of investment in particular dropped sharply in comparison with previous decades. Although saving and investment ratios have been rising gradually in the 1990s, in the vast majority of countries they have still not regained precrisis levels.
- 9. The processes of adjustment, macroeconomic stabilization and structural reform have acted as a powerful selective mechanism, forcing each economic agent to try to adapt to the new scenarios governed by price signals and the new patterns of regulation of productive activities. It is not surprising that different firms have had very varied reactions to these phenomena depending on the industry, the region of the country and the type of production involved.
- 10. In general, the segments of the productive system most hurt by the changes

- in the rules of the game and the regulatory framework have been industries that produce for the domestic market, engineering-intensive activities, small and medium-sized firms and State enterprises as a group. In contrast, sectors involved in exporting, activities based on natural resources, large domestically-owned conglomerates and many transnational corporations have been able to adapt more successfully to the new circumstances.
- Restructuring has forced the region's productive systems to rely even more than before on their traditional areas of comparative advantage, although in a number of cases they have been able to incorporate new technologies that have expanded the access to available natural resources and modernized the methods of their exploitation. It is likely that in the absence of macroeconomic destabilization that would impede their growth, these bases of production will be able to sustain steady, moderate growth similar to that of the last few years, but not at the pace that circumstances will require. More dynamic growth would demand, on the one hand, diversifying exports and generating greater linkages with higher added value and technological content, and, on the other hand, disseminating technical progress.
- 12. The structural heterogeneity characteristic of the region's productive systems, however, has accentuated, as productivity differences have tended to widen between large firms in the forefront of the modernization process and the many and various activities that are lagging behind. This situation not only gives rise to greater social inequalities but also inhibits technical progress by limiting its dissemination and depriving the more dynamic activities of intersectoral linkages.
- 13. In nearly all the region's economies, to a greater or lesser degree, there are structural problems that make it difficult to achieve sustained growth solely through price signals. One problem is that in the short run, present activities based on natural resources or the delivery of public services are more attractive in terms of risk and return than many promising activities that require the development of technolo-

gical capacity; another is that the shallowness and gaps in the capital market for high-technology projects discourage investments that would be profitable over the long term and prevent the spread of innovations in production and technology.

- 14. The existence of segmented or incomplete markets reduces the possibilities of increasing linkages within productive systems and prevents demand and technical progress from radiating outward from the modern, leading sectors to the rest of the economy. This phenomenon undercuts, in particular, the capacity of the export sector to generate momentum. Furthermore, segmented or incomplete financial markets are inefficient in channelling savings into investment. The injection of abundant external resources into such financial markets has caused major surges in financial and stock market activity. The effect has been to channel most of these resources into consumption and into investment in the production of non-tradable goods, primarily through short-term instruments.
- 15. Furthermore, the structural deficiencies of the region's financial markets have had at least two adverse effects on investment and innovation. First, the segmentation of credit has largely excluded small and medium-sized firms from access to the main flows of capital. Second, wide spreads have converted low real interest rates for depositors into burdensome real lending rates for producers.
- 16. Excessive reliance on the "automatic" effectiveness of macro-economic price signals and reform has led to a tendency to underestimate the weakness of institutions, the failures of markets (as mentioned before, many are imperfect, segmented, incomplete) and the importance of externalities, and has on occasion induced an overdependence on the capacity of macroeconomic policy alone to trigger growth. Even the best conceived policies from an analytical standpoint can fail or not evolve properly in an adverse institutional context.

- In the light of the recognition of how stabilization efforts and structural reforms interact, concerns about the current functioning and growth potential of Latin American and Caribbean economies should be approached from a viewpoint that integrates macroeconomic scenarios, institutions and regulatory frameworks, factor markets and micro-economic behaviour. An examination of their interaction will illuminate the practical difficulties involved in simultaneously achieving macroeconomic stability, vigorous growth, satisfactory levels of employment, and rates of saving, investment and technical progress sufficient for sustained development.
- In order to overcome obstacles to greater productivity and employment, certain macroeconomic conditions must be met. It is estimated that gross domestic product needs to grow at a rate of around 6% per annum. This result cannot be achieved without a significant increase in investment -to a regional average of around 28% of GDP- and without a proper balance between domestic and external saving to enable investment to be financed in a manner compatible with macroeconomic stability. But growth alone is not enough. There are also conditions on the micro-economic and systemic level that are essential for generating momentum and creating externalities that will help draw production units and labour in lagging segments of the economy into the transformation process and improve the income of the poorest groups.
- 19. To obtain the best results, macroeconomic equilibria must be sustainable over time; but it is also necessary to ensure that the process of achieving stability does not distort the efficient allocation of resources required to expand the production frontier. Macroeconomic stability involves not only low inflation and fiscal balance but also a sustainable current account deficit, a level of domestic saving adequate to sustain investment, maintenance of an appropriate real exchange rate and a level of aggregate demand consistent with full utilization of existing production capacity. Progress on all fronts at the same time,

without overemphasis on any one of these goals at the expense of the others, may be reached only gradually, but it will produce better results in saving, investment and productivity.

20. A stable macroeconomic environment is an essential precondition for stimulating saving and investment and for achieving higher rates of growth. In order to match effective demand with the production frontier and to cushion the effects of external shocks, what the countries will require -allowing for differences in emphasis and intensity, depending on their specific circumstances-are consistent monetary, credit, fiscal and trade policies and appropriate income or wage policies, combined with policies to promote saving, investment and the development of productive capacity.

To achieve an adequate level of saving, macroeconomic management alone is not sufficient; policies are needed to promote all components of national saving through effective incentives and appropriate institutions. Private saving can be promoted by encouraging prior saving for housing, fostering institutional saving (by reforming the pension and tax incentive systems) and offering tax incentives for various forms of saving. Public saving capacity should be increased by rationalizing the finances of public sector enterprises and by strengthening fiscal accounts. These savings must then be converted into real investment through adequate intermediation by the financial system.

22. In order to increase the rate of investment and direct it towards activities with a greater impact on overall productivity, there is a great need to improve and deepen financial systems by acting simultaneously on all the components of capital formation. In addition, tax incentives should be offered for business investment, the physical infrastructure of the countries should be improved (through both public investment and private participation) and foreign direct investment should be encouraged.

 To ensure that a faster, more intensive accumulation of fixed capital effectively raises total factor productivity of the system as a whole and results in greater international competitiveness, it must be accompanied by an equally intensive investment in human capital to keep skills abreast of technical progress. Such investment is not only a necessity, but also creates a positive linkage between growth and equity, since it will mean expanding effective access to education, improving its quality and relevance and expanding the reach of training and rehabilitation programmes.

24. In the financial arena, it has been found that it is important to complement a policy of deregulation with a policy of financial development. In addition to extending the realm of market signals to the financial system, policies should aim specifically at creating and promoting new sources of savings and fostering the vigorous development of well-regulated and supervised financial institutions and instruments, in order to create the conditions for financing specific kinds of investment and to facilitate the access to investment capital of previously excluded segments of production.

25. In order to facilitate financial intermediation that efficiently converts financials avings into real investment, economic policy should concentrate on medium-term signals and should seek to ensure that fundamental variables respond to permanent rather than to speculative or transitory factors. The adoption of this focus will stabilize planning horizons and leave more scope in economic policy for influencing the productive process, so that relative prices and incentives can stimulate changes in production patterns.

26. When the above incentives are not sufficient for the development of projects that will only be profitable after a long period of gestation, or as positive externalities are gradually generated, special approaches will need to be developed to support investment in such projects and in technological innovation and human resource training which also yield a return only in the long run. Such measures might include temporary additional incentives

in accordance with specific policy guidelines. Meanwhile, new reforms should create the conditions for the development of markets –now nascent or non-existent—that will facilitate strong, sustained growth.

**27.** The goals of a productive development policy should be to increase total factor productivity, to improve the quality of goods and services and to promote the generation and dissemination of technological progress through a combination of actions designed to develop and strengthen national systems of innovation. The systems should be characterized by effective interaction between the various institutional agents involved, and increasing reliance on resources allocated to innovation by the private sector. Measures to promote productive development might include, for example, supporting information networks, strengthening the mechanisms of business cooperation, protecting intellectual property, promoting research centres and extension services on the technology specific to a given sector, adopting international norms and standards and promoting occupational training and education.

28. Promoting competition is essential, not only for productive development and international competitiveness, but also for the benefit of consumers. The role of the public sector in this regard should be to deregulate naturally competitive markets and dismantle artificial barriers to the entry of competitors, while at the same time ensuring appropriate regulation of

markets dominated by natural monopolies.

29. The public institutions responsible for designing and implementing development policies need to keep pace with the internationalization of the region's economies. They need in particular to adapt their policies and instruments to the commitments resulting from multilateral agreements and from advances in integration schemes. Similarly, export promotion requires greater emphasis on investment abroad and participation in marketing chains, and greater concentration on product quality and trademark differentiation.

30. In conclusion, in order to become internationally competitive, maintain macroeconomic equilibria and make progress towards social equity, many conditions will have to be met, and they must be approached from the dual perspective of macroeconomic consistency and productive development. On the threshold of the new century, the countries of the region are facing a situation that will be more demanding in terms of the quality of the design, management and evolution of macroeconomic policy; they will need to draw closer to the international technology frontier and disseminate technical progress over a wide range of activities; and as they approach full utilization of existing production capacity, they will have to expand that capacity steadily and substantially not only through increases in productivity but through new capital investment.

## PART ONE PERFORMANCE ASSESSMENT

#### I. ECONOMIC REFORMS

For nearly three decades, beginning in the mid-1940s, the Latin American and Caribbean countries achieved steady economic growth (although with major differences from one country to the next), along with deep structural changes. This process was part of a growth pattern characterized by: i) exports of primary goods in areas in which the countries had always enjoyed comparative advantages; ii) the development of industries protected from foreign competition and producing for the domestic market; iii) the growth and diversification of private consumption, and iv) a steady increase in public spending.

The crisis in the 1980s, triggered by external debt, its subsequent unfolding and the technological lags in the regional productive system highlighted the weaknesses of the Latin American and Caribbean economies, which had failed to develop the capacity and flexibility needed to meet the challenges posed by a global production pattern of increasing technological and organizational complexity and by a rapidly evolving international financial system. These phenomena, among others, revealed the structural weakness of the fiscal system, arising from the tendency –implicit in this mode of development- for public spending to increase beyond available resources.

It would not be an exaggeration to say that the 1980s constituted a watershed with respect to the development policies and strategies of the region's governments and the functioning of the economies. The crisis led to economic reforms and adjustment programmes designed to stabilize the economies and help them to achieve more dynamic linkages with the global economy. It was thus hoped that adapting the pace and nature of the growth process to the new circumstances would make it possible to equal and even exceed the progress made during the import-substitution phase. Hence, adjustments were not limited to the public policy sphere, but were also extended to the structure and operation of markets, institutions and economic agents.

Governments reacted to the abrupt decrease in external financing at the start of the 1980s by implementing various adjustment programmes and economic reforms whose scope varied according to how severely each country was affected by the crisis. These reforms were not always carried out steadily and rigorously to the point of completion.<sup>2</sup> A set of measures gradually emerged which, despite widely varying characteristics, showed many

<sup>2</sup> Economic reforms were instituted broadly in Chile during the 1970s and, in the sense of liberalization of imports and financial deregulation, in Argentina and Uruguay. In Argentina the reforms were reversed when the crisis began. In Chile, where the reforms consisted of a broader deregulation of goods and factor markets, the tariff reductions were only partially and temporarily reversed.

similarities in terms of overall approach. In particular, in carrying out their structural reform processes, all the countries adopted similar goals, namely, macroeconomic stabilization and the development of international competitiveness, based on fiscal discipline, trade liberalization, market mechanisms and a bigger role for private investment.

More specifically, it can be said that, despite differences of degree and emphasis, this set of policies has a number of common elements, including: i) explicit measures to liberalize trade, characterized by moderate tariffs and narrow spreads; ii) fiscal and monetary discipline (deficit reduction, moderate real interest rates); iii) similar tax reform measures (broadening of the taxpayer base, improvement of administrative procedures, abolition of special exemptions); iv) privatization and deregulation of public enterprises; v) deregulation of financial and labour markets; vi) promotion of foreign direct investment, and vii) a legal and institutional framework which strengthens the right of ownership.

The greater importance which began to be attached to market signals as the basis for resource allocation was reflected in the almost total disappearance of sectoral policies, investment promotion schemes and, above all, industrial policy measures. This was based on the notion that the components of the microeconomic and sectoral environment would somehow adapt to the new regulatory framework and to macroeconomic incentives and would, following a restructuring phase, eventually acquire the desired international competitiveness.

The aforementioned common elements and their results undoubtedly make it possible to talk about a mode of development which differs radically from the previous one. It should be recalled, however, that the practical implementation of these measures differs markedly from one country to the next, essentially because of different circumstances. In fact, the content, pace, scope and order of the reforms have depended on the following factors: i) the

need to adjust aggregate demand to the changing availability of resources; ii) the degree of contingency –direct or indirect-of the assistance provided by multilateral financial institutions; iii) the political, social and institutional circumstances in each country, and iv) the comparison, in both political and economic terms, of the direct costs and expected benefits of introducing the reforms.

These factors, combined with the different political outlooks of the governing teams, the varying characteristics of the political systems, and the different degrees of economic and technological maturity of the productive systems in the various countries, explain not only the varying pace and content of the reforms, but also the uneven results achieved.

Considerable differences can be seen from one country to the next in such fundamental areas as the management of exchange rate policy. While all the countries share the goals of unifying their exchange rates and maintaining competitiveness by setting exchange rates high, they have adopted various approaches, such as a relatively freely floating exchange rate, a dirty float, a controlled float, and a fixed exchange rate. In addition, there is a broad range of anti-inflation programmes, varying mainly with regard to the pace of implementation; at one extreme are gradual programmes, accompanied by price indexing, and at the other extreme, radical and intensive programmes. The same can be said of the deregulation of the capital account, a process that in some countries went hand in hand with the liberalization of trade, while in other countries it began later.

There are many other aspects of this new policy approach which also display considerable differences in scope and intensity. The following are especially noteworthy: i) actions designed to counteract the regressive effects of economic policy (targeting of public expenditure, transfers); ii) actions aimed at promoting specific productive activities; iii) the political will to privatize

ECONOMIC REFORMS 21

public enterprises engaged in the exploitation of mineral resources and energy products for export; iv) means of regulating monopolies of privatized public services; v) adaptation of the legal and institutional framework governing the right of ownership; vi) adoption of legal norms consistent with the goal of fiscal and monetary discipline; vii) incorporation of the goals of vertical equity and allocative efficiency into tax reform processes; viii) the content and scope of social security, welfare and labour law reforms, and ix) in general, the relative contribution of the public sector to the gross domestic product.

Table I.1 compares the scope, intensity, timeliness and order of the reforms carried out in the countries of the region.

The change in the functions assigned to the State, and the inclusion of fiscal discipline as part of the reform process, led to a transformation of the State and its fiscal mechanisms in which macroeconomic priorities and reform proposals were combined in varying proportions and orders. These priorities stemmed from the urgency of the needs for external adjustment, especially with respect to the budget because of the suspension of financing from abroad, and for domestic stabilization. Greater fiscal discipline, and its reflection in tax and spending policies, were also attributable to the reduced borrowing capacity of the public sector, which forced it to resort to the financial markets on a very limited basis.

In short, the more significant institutional reforms carried out by most countries of the region implied a genuine change in the economic system and in State intervention in the economy. This change accelerated and shaped the transformation of the development pattern which was already on the horizon prior to the crisis, especially in the microeconomic sphere. Exports and private investment are now what stimulate growth. An increase in public spending following the adjustment period is, however, dependent on growth itself. Domestic and foreign private investment

in response to market signals, with limited or no public subsidies, is another important requirement for capital accumulation. Given the structural conditions of the Latin American and Caribbean economies, these signals are determined largely by international prices, although they also suffer from distortions caused by nascent or imperfect domestic markets.

In the tradable goods markets, international prices have a clear influence on the signals investors perceive. In the non-tradable goods markets, however, competition suffers from substantial imperfections. In addition, private investments in infrastructure and basic services depend on the characteristics of the respective regulatory frameworks. The signals emanating from factor markets, meanwhile, are highly influenced by their deficiencies, as in the case of the labour market, or by their incompleteness or nascent development, as in the case of capital or technology markets.

In this context, State investment tends to be limited to the economic, technological and social infrastructure. The role of the State as coordinator of public and private investments and investments in fixed and human capital has the potential to expand. All the above factors are prompting the State to adopt indirect measures to promote private investment and to participate more actively in regulating natural monopolies and fostering competition, in keeping with the leading role which private investment and the operation of the market have begun to assume.

As indicated earlier, fiscal discipline has become another striking feature of the new pattern of State intervention in the economy. Although it originated in the fiscal adjustments mandated by the crisis and the need for stabilization, it now sends an important signal to markets regarding the solvency or creditworthiness of the State, as well as the stability and permanence of the economic policies and the "ground rules" adopted as part of the institutional reforms.

Table I.1
SUMMARY OF THE REFORM PROCESS

	<del></del>			
	1976-1979	1980-1985	1986-1990	1991-1995
ARGENTINA Liberalization of imports Promotion of exports	R	F R	G *	R
Deregulation of exchange rates	R	Ë	*	R
Deregulation of the capital account Openness to foreign investment Deregulation of interest rates Privatizations	R R R	F	*	R R
BOLIVIA				••
Liberalization of imports Promotion of exports Deregulation of exchange rates Deregulation of the capital account Openness to foreign investment Deregulation of interest rates			R R R R	
Privatizations				G/R
BRAZIL Liberalization of imports Promotion of exports Deregulation of exchange rates Deregulation of the capital account		R	G	* R
Openness to foreign investment Deregulation of interest rates Privatizations		R		G&P
COLOMBIA Liberalization of imports Promotion of exports Deregulation of exchange rates Deregulation of the capital account Openness to foreign investment Deregulation of interest rates Privatizations		R	G R	R * P G R R G
COSTA RICA Liberalization of imports Promotion of exports Description of sychonogerates			G	R R
Deregulation of exchange rates Deregulation of the capital account Openness to foreign investment Deregulation of interest rates Privatizations			G	R R R P
CHILE	_			
Liberalization of imports Promotion of exports	R	* P	*	R
Deregulation of exchange rates		'		R
Deregulation of the capital account	P			
Openness to foreign investment Deregulation of interest rates	R R			
Privatizations	Ř			Р

Table I.1 (concl.)

	1976-1979	1980-1985	1986-1990	1991-1995
JAMAICA Liberalization of imports Promotion of exports Deregulation of exchange rates			G R	R
Deregulation of the capital account Openness to foreign investment Deregulation of interest rates Privatizations			R R P G	R G
MEXICO Liberalization of imports Promotion of exports	R	D	P *	
Deregulation of exchange rates Deregulation of the capital account Openness to foreign investment Deregulation of interest rates		R R R		R
Privatizations		G&P		R
PERU Liberalization of imports Promotion of exports Deregulation of exchange rates Deregulation of the capital account Openness to foreign investment Deregulation of interest rates Privatizations	G	G/F R		R R R R R
URUGUAY Liberalization of imports Promotion of exports Deregulation of exchange rates Deregulation of the capital account Openness to foreign investment Deregulation of interest rates Privatizations	G R R R R	G	G *	R *
VENEZUELA Liberalization of imports Promotion of exports Deregulation of exchange rates Deregulation of the capital account Openness to foreign investment Deregulation of interest rates Privatizations			R R R R	* F F

R: radical reform.

Source: ECLAC, Reformas económicas en América Latina: una síntesis de la experiencia en once países (LC/R.1606), Santiago, Chile, December 1995.

G: gradual reform.

F: former situation.

<sup>\*:</sup> obstacles to implementation, suspension of reform or temporary increase in tariffs.

P: partial process.

Nevertheless, owing to the constraints imposed by macroeconomic discipline, the process of transforming the fiscal structures has not yet been completed. In many cases, the adjustment in the share of resources absorbed by the State was achieved through accelerated tax reforms, indiscriminate spending cuts and the use of extrabudgetary resources stemming from the privatization of public enterprises. Moreover, in many cases the ongoing reform of the social security and welfare systems has been somewhat sluggish, while fiscal decentralization processes are still in their infancy.

Lastly, fiscal discipline and monetary prudence have become increasingly important components of macroeconomic regulation, although striking differences can be seen in the policies implemented by different countries. The heavy influx of external capital has led to an increase in aggregate demand which exceeds the level of domestic activity and to an expansion of the money supply due to the substantial build-up of reserves. This has prompted the countries to adopt measures ranging from sterilizing excess liquidity to

restricting or discouraging short-term capital flows.

In general, while all the countries show a similar interest in fiscal discipline, differences can be seen among them as regards the role of monetary policy, which is reflected mainly in their exchange rate systems and the degree of dollarization of their banking systems. Managed (fixed or adjustable) exchange rate policies and high dollarization lead to a somewhat passive adaptation of the money supply to the flow of foreign currencies. Under a system that allows free floating or dirty floating within a given band, interest rates and reserve requirements applied to open market operations are usually regulated.

In some cases exchange rate policies are determined by stabilization strategies and the current phase of implementation of stabilization policies in which the exchange rate anchors price formation and generates expectations. Lastly, not all countries have resorted equally to indexation as an instrument for protecting the value of agreed transactions and guaranteeing price stability.

#### II. MACROECONOMIC STABILIZATION<sup>3</sup>

In the past 15 years, the countries of the region have had to face sudden, major external changes which have marked distinct stages in their macroeconomic development. The stabilization and adjustment policies implemented in response to those changes and the disequilibria caused by them, as well as the depth, order, consistency and credibility of the structural reforms undertaken, have had equally dissimilar effects on political and economic stability, the potential for saving and financing and the expectations and incentives motivating private investors.

#### A. EXTERNAL ADJUSTMENT

The behaviour of the external imbalance from the debt crisis to the present has two phases which can be identified by the trend in the net transfer of resources and its impact on economic performance. The first phase (1982-1990) was marked by adjustment and a negative transfer equal, on average, to 3.2% of the gross domestic product (GDP); the second phase (1991-1994), by a recovery based on

external saving and a positive transfer equal to 1.5% of GDP. External debt indicators decreased notably over the latter period.

During the first period, in view of the constraints encountered in international credit markets, the main objective was to balance the current account. Because of high interest payments and profit remittances (financial services account deficits), this meant generating significant trade surpluses, which, in turn, made it necessary to keep real exchange rates higher than their long-term equilibrium would allow. During the 1990s, once the external imbalance had been reduced, the objective was to finance the balance of payments, which meant obtaining the capital needed to finance a growing current-account deficit. With few exceptions, real exchange rates ceased to be a basic tool of economic policy, and came to be determined by the level of capital inflows.

The difficult process of external adjustment in the Latin American and Caribbean countries<sup>5</sup> in the 1980s was

This chapter summarizes chapter I of the ECLAC document entitled The economic experience of the last fifteen years. Latin America and the Caribbean, 1980-1995 (LC/G.1925(SES.26/17)), Santiago, Chile, 1996.

This average encompasses the specific case of the Central American subregion, which continued to be a net recipient of external resources during the 1980s. This is attributable to geopolitical factors, given the military conflicts which persisted in the subregion during those years.

The countries members of the Organization of Eastern Caribbean States were a notable exception, since they achieved rates of growth exceeding 5% on average throughout the 1980s. Preferential access for these countries, which expanded banana exports to the European market, and rapid growth in their tourism sectors were major factors in producing this strong economic performance.

marked by the sharp contraction of external financing, the massive nature of the adjustments required and the short period in which to make them, all within an adverse trade environment. This forced drastic cuts in domestic spending. A further adjustment was also needed in order to cope, in general terms, with the procyclical behaviour of the international commercial banks, and, in some cases, with capital flight.

The drops in GDP were higher than what could reasonably have been expected, given the magnitude of the external constraints. The sharp contraction of external financing and the dominant pattern of adjustment policies reduced the region's potential for growth, leading to further spending cuts and recessionary situations which exacerbated the underutilization of resources and disincentives to investment.

The main differences in the behaviour of the external imbalance in each country during the 1980s were determined by several factors, including: i) the initial level of debt; ii) the trend in the terms of trade; iii) the relative degree of access to financing during adjustment process; iv) the initial degree of liberalization of the economy; v) the net foreign exchange holdings of the public sector; and vi) the overall consistency of economic policy, particularly with respect to promotion of saving, investment and exports (Damill and Fanelli, 1994).

The most decisive of these factors proved to be the availability of external financing, since it determined whether the closing of the external gap could be spread out over time. This was the key element in the cases of Bolivia, Guyana, Costa Rica, Chile and Jamaica, which exemplify different combinations of adjustment and financing, the first three being based mainly on bilateral financing and the last

two on multilateral sources.<sup>6</sup> Other countries, such as Colombia and Brazil, managed to eliminate their imbalances in the long run, owing to the performance of their export sectors. Nevertheless, only Chile, Costa Rica, Jamaica and Guyana emerged from the crisis with significantly higher export ratios.

The adjustment in the domestic absorption of resources was not synonymous with stabilization, much less recovery of growth. The largest efforts to achieve this adjustment were seen in the countries with lower growth rates (Mexico and Argentina), not in those with higher growth (Colombia, Costa Rica and Chile).<sup>7</sup> External transfers reached their peak in countries in which investment fell more sharply and growth was lower (Argentina and Mexico) (see table II.1).

Colombia and Costa Rica, the countries with the highest growth during the 1980s, were among those which transferred fewer resources abroad. Brazil and Chile occupied the middle ground. Brazil transferred a higher volume of resources than Chile and was more successful in reducing its dependence on external saving. However, it was Chile which succeeded in re-establishing a process of sustained growth in a context of increasing stability.

In such countries as Colombia, Chile, Mexico and Venezuela, devaluation improved the fiscal balance, since the public sector had a surplus of foreign exchange. This favoured fiscal adjustment and stabilization, reduced the need for borrowing and facilitated external debt interest payments. In other cases (Argentina, Brazil, Uruguay), while the private sector could generate a foreign-exchange surplus, there were greater difficulties in transferring it to the public sector for the purpose of making interest payments. Thus, in order to make the transfer, countries tended towards excessive domestic borrowing, higher

<sup>6</sup> From 1983 to 1989, net capital inflows equalled, on average, 14.6% of GDP in Bolivia and 10% in Costa Rica, which enabled both countries to finance high current-account deficits during that period (14% of GDP in Bolivia and 8.3% in Costa Rica).

<sup>7</sup> The size of the adjustment was equal to that of the trade surplus, which however, approached the level of net resource transfers abroad (net capital flows and factor payments) only because unrequited official transfers and the variation in international reserves were insignificant.

Table II.1
GROWTH, SAVINGS, INVESTMENT AND EXTERNAL TRANSFERS
DURING THE DEBT CRISIS

	g ª	Ip	Savings/ GDP c	Trade surplus/X	Trade surplus GDPe
Colombia	3.5	-0.9	1.8	12.4	1.9
Costa Rica	2.8	1.4	6.6	-5.2	-1.8
Chile	2.5	-1.0	3.6	8.9	2.7
Brazil	2.2	-1.6	3.3	32.2	3.2
Mexico	0.9	-5.4	-2.8	24.7	4.2
Bolivia	-0.1	-2.0	-5.8	<i>-</i> 7.3	-1.2
Argentina	-0.4	-11.3	-7.7	36.7	3.5

Source: ECLAC, on the basis of official figures.

Average growth rate 1982-1990.

b Change in the ratio of investment to GDP, 1980-1990.

<sup>e</sup> Average value of the ratio of the trade surplus to GDP, 1982-1990.

interest rates and an uncontrolled expansion of domestic credit, which increased inflationary pressures.

Another key factor in the behaviour of the external imbalance was the proportion of export-generated revenues absorbed by external transfers, which depended on both the degree of liberalization of the economy at the onset of the crisis and the cumulative volume of debt. This influenced the way in which creditors and multilateral institutions perceived the countries ability to pay, and may, for example, help to explain why Chile, which had a substantially higher current-account deficit, was able to manage its external imbalance much more successfully than Brazil.

In all the countries which had low growth, with the exception of Bolivia, the external transfer of resources, and the resulting trade surplus, represented a high percentage of exports. Argentina, for example, generated a surplus in making net payments equal to nearly 37% of the value of its exports; in Mexico this proportion verged on 25%, and in Jamaica it was 36%. 10 The opposite was true in the countries with higher growth. The amount transferred abroad had a particular influence on the growth rate of the relatively larger countries, since along with having advanced further in the import-substitution process, they had the least open economies. In these cases there were greater difficulties in reducing the demand for imported primary products without severely affecting domestic production capacity. The higher the transfer, the higher the trade surplus, and therefore the more stringent the

Change in the ratio of gross national savings to GDP, 1980-1990.

d Average value of the ratio of the trade surplus to exports, 1982-1990.

<sup>68</sup> Given the scanty volume of reserves which the countries had at their disposal following the speculative foreign exchange movements (runs) of the early 1980s, their foreign exchange liquidity levels depended basically on the amount of their annual exports. Under these circumstances, a more open economy meant a higher volume of exports and, accordingly, a higher annual level of international liquidity.

<sup>9</sup> From 1983 to 1989, Chile's current-account deficit averaged 6.3% of GDP, as compared with barely 0.6% for Brazil. As a result of Chile's higher trade liberalization ratio, external transfers represented, on average, 8.9% of its exports, while in Brazil this proportion came to nearly a third. Assuming that the trade balance was in equilibrium prior to the transfer, the proportional reduction in imports needed to achieve a trade surplus commensurate with the transfer to be made was much lower in Chile's case than in Brazil's (Damill and Fanelli, 1994).

<sup>10</sup> This percentage represents the simple average of the ratio of debt service to exports in the period 1985-1992.

adjustment that had to be made in the domestic absorption of resources. Meanwhile, the more advanced the import-substitution process was, the less elastic the demand for imported primary inputs tended to be. In these countries, therefore, the burden of external adjustment fell more heavily on the imported component of investment, leading to an overadjustment in that variable and also in GDP.

In short, the period 1982-1990 was characterized by an economic performance which remained far from the production frontier and by a real GDP which fell significantly short of its potential, owing to a dramatic underutilization of productive resources. The substantial drops in investment limited the expansion of potential output, initiating a slow-growth phase, with decreases in GDP and virtually stagnant domestic demand, which for the most part continued up to 1990. The incentives for increasing productivity and introducing technological innovations did not stem so much from a climate of growth as from the competitive pressures generated by trade liberalization and exacerbated by an environment of low economic activity and instability, which neutralized the stimulus provided by generally high real exchange rates.

#### **B. CAPITAL FLOWS**

The new international strategy for managing the region's external debt, as embodied in the Brady Plan, enabled the Latin American and Caribbean countries to bring their public external debt under control. The simultaneous introduction of reliable fiscal adjustment measures and institutional reforms, which revealed the extent of commitment by governments to a change in the economic order and, especially, the leading role of private

investment, restored the confidence of investors.

For these reasons, in addition to a notable decrease in international interest rates, external investors turned their attention to the high profits to be made in economies in the process of recovery and transformation, including some which had been reopened to foreign investment or were making attractive offers to privatize State-owned public service enterprises.

Under these circumstances, by the early 1990s, the negative transfer of financial resources which had continued unabated from 1982 to 1990 had already been reversed. Private external financing resumed at a vigorous pace, its sources now more diversified and its composition more slanted towards short-term investment than in other development zones.<sup>11</sup>

Foreign direct investment increased, as did portfolio investment in bonds and shares (including placements made directly and through American Depository Receipts (ADRs) and Global Depository Receipts (GDRs)). Net capital inflows as a proportion of GDP reached 5% during 1992-1994, thus exceeding the previous peak (4.5% during 1977-1981). While in absolute terms the highest flows were concentrated in Mexico, Argentina, Brazil and Chile, 11 countries of the region had capital inflows equal to over 5% of GDP.

While from 1982 to 1990 the Latin American and Caribbean countries faced a cumulative net outflow of financial resources totalling US\$ 218 billion, from 1991 to 1994 they had a positive net transfer of US\$ 79 billion, owing to a net capital inflow of US\$ 207 billion. An especially striking case was that of Mexico, which went from a net capital outflow of US\$ 9 billion during the first period to a net inflow of US\$ 90 billion during the second.

<sup>11</sup> From 1990 to 1994, for all developing countries, portfolio investment represented 41% of external flows and foreign direct investment (FDI) represented 37% of the total. In Latin America and the Caribbean, these values were 66% and 30%, respectively, while in Asia the priorities were clearly targeted to long-term investment: 45% in FDI and only 24% in portfolio investment (IMF, 1995).

Beginning in 1991, the heavy influx of capital provided the financing needed to revitalize the economies and lower inflation in the context of the structural reforms undertaken by various countries. From 1992 onward, the basic variables in the international situation began to improve: along with the robust recovery of capital flows, external interest rates declined notably, debt service decreased and the terms of trade not only stabilized. but in some cases even improved. However, this favourable external context also posed challenges, since efforts had to be made to safeguard the solvency of the financial system and the stability and sustainability of macroeconomic equilibria.

From 1992 to 1994 the relaxation of external constraints due to abundant net financing made it possible to cover the growing current-account and trade deficits. The latter began to recur in 1992, to the point where imports increased twice as much as exports and nine countries had current-account deficits of over 5% of GDP (Bolivia, Costa Rica, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Paraguay and Peru); most of these imbalances, however, were amply covered by capital-account revenues.

Thus, the region's countries had net capital inflows higher than their sustainable levels of external saving. As a result, their spending and current-account deficits rose to levels that threatened their macroeconomic stability. In several countries this heavy influx of resources had undesirable effects on the exchange rate and the money supply; it also increased the countries' vulnerability to external shocks, hurt the tradable goods sector and diverted national savings into the consumption of imported goods. The efforts to sterilize the monetary impact of the foreign exchange absorption kept interest rates high, which discouraged productive investment and stimulated foreign exchange arbitrage processes, thus limiting the freedom of action of monetary policy.

The abundant relative supply of foreign exchange generated a fairly widespread tendency for local currencies to appreciate 12 relative to those of trading partners by amounts several times higher than what reasonable net productivity increases would allow. This undermined the competitiveness of exporters and producers of import substitutes, and was not conducive to a productive restructuring designed to stimulate the tradable goods sector.

Nevertheless, exports maintained a reasonable momentum, and a growth rate higher than that of world trade. From 1990 to 1994, the volume of global exports grew at a rate of 5% per annum, while regional exports grew at a rate of 8.5%. Even more striking was the behaviour of intraregional trade, which was encouraged by the economic recovery and by the progress of trade agreements and integration schemes. During the 1990s, in the framework of the Southern Common Market (MERCOSUR), the Andean Pact and the Central American Common Market (CACM), the value of intraregional exports has increased at a rate amply double that of exports to the rest of the world. 13 Thus, the accelerating momentum intraregional trade and investment appears to constitute a trend that will deepen over the next few years.

## C. RECOVERY AND STABILIZATION

From 1991 to 1994, as a result of the greater scope afforded by the activity of the external sector, domestic output and demand recovered, with favourable consequences for the labour market and compensation levels. Investment also

<sup>12</sup> From 1990 to 1994, the real appreciation rate was over 5% per year in Argentina, Colombia, Ecuador and Uruguay. In the case of Brazil, it rose to 21% in 1994, which caused the real effective exchange rate to fall by 9% from its 1990 level.

The Caribbean Community (CARICOM) has been a notable exception, because in the period in question intraregional trade has been sluggish.

gained momentum, driven by the capital flows which, up to 1994, helped to finance a growing current-account deficit. By facilitating the removal of the dominant external constraint, the capital inflows promoted a fuller utilization of productive capacity, and thus a recovery of production, incomes and employment. Moreover, inflation rates fell significantly, and public-sector deficits were reduced by becoming more manageable or being turned into surpluses. In this context of greater stability and relaxation of external constraints, the economies recovered a certain capacity for growth. In the productive sphere, a relative improvement could be seen in investment and productivity levels, particularly in industry.

Declining inflation rates coincided with a recovery in the level of activity, and the gap between real and potential output was reduced, producing an effect derived from the business cycle, or from stabilization, which raised productivity. This has made it possible to withstand currency appreciations which would otherwise have had a severer impact on competitiveness. Such productivity growth, however, had a temporary component, which, as countries draw closer to the production frontier, must be replaced by more permanent stimuli that are independent of the business cycle.

#### D. FISCAL ADJUSTMENT

The crisis of public finance seen in the vast majority of the region's countries during the 1980s was overcome during the 1990s, at least up to 1994, for, due to the notable progress achieved from 1991 onward, nearly all the economies were in a relatively stable position. These results were influenced especially by the fiscal adjustment processes initiated in previous years, the widespread implementation of budgetary controls and the resumption of external financing.

In many cases, the fiscal adjustments reached major proportions during the first half of the 1980s, since most of the region's

countries had to reduce fiscal deficits widened by the crisis by between 4% and 7% of GDP. With few exceptions, however, these adjustments did not last long, since external conditions were adverse. As the external imbalance was reduced and growth revived, the results improved significantly, making it possible to resume the adjustment process; thus, from 1989 to 1994 fiscal deficits decreased by around 3% of GDP, and in some cases a surplus was obtained. During the 1980s, adjustment was based mainly on spending curbs, since recessionary conditions prevented an increase in fiscal revenues. During the 1990s, in a different situation, efforts have been focused mainly on increasing revenues. This has made it possible to alleviate the pressure on expenditure, which, in the wake of drastic cuts, had fallen to very low levels.

Thus, during 1990-1994, the restoration of external credit, the resumption of growth and price stability were the keynote of the Latin American economy, and thus of a better fiscal performance. The possibility of obtaining voluntary financing in the international markets widened the scope of domestic borrowing and, at the same time, lowered its costs. The appreciation of exchange rates, which was also linked to the capital inflows and the build-up of reserves, reduced the real burden of external interest payments on public budgets. Tax revenues responded elastically to the rise in the level of activity; the decline in domestic interest rates (reflecting the behaviour of international rates and the end of the credit rationing which had afflicted many countries of the region), combined with the new surge in output, encouraged better tax compliance. In addition, lower inflation meant an increase in real tax receipts.

These macroeconomic conditions were an important part of the factors that led to a gradual change in the fiscal situation. Of equal importance was the greater impetus given to structural reform policies in various public-sector spheres. The innovations in the design of tax policies (greater emphasis on

consumption taxes, broadening of the taxpayer base, reduction of tax rates and customs tariffs, increased supervision), the privatization of public enterprises and services and the progress made in decentralization all deserve mention here.

## E. EXTERNAL CAPITAL AND STABILITY

The effort to ensure stable access to external capital flows has proved to be of vital importance in preventing them from fostering distortions of key prices in the economy, such as exchange and interest rates. In several cases, this concern has led to interventions in the foreign exchange market through purchases of foreign exchange and the issuance of domestic debt instruments to sterilize the monetary impact of such purchases. In addition, some countries -particularly Chile and Colombia have sought to promote longer-term flows and to limit short-term ones through specific disincentives. In 1995 Brazil and Peru tentatively implemented measures having a similar thrust, albeit on a smaller scale. Such policies, while not free of costs,<sup>14</sup> have proved to be effective during periods of transition to greater financial integration.

The most striking experiences in handling heavy inflows of external financing in the region and outside it indicate that the problem has been dealt with through integrated economic policy packages consisting of fiscal austerity, increased domestic saving, sterilization operations, gradualism in the lifting of controls on capital and outflows,

moderate appreciations in local currency and measures to inhibit excessive inflows of short-term capital. In the region, meanwhile, experience shows that a combination of little or no uncertainty about exchange rates, <sup>15</sup> sterilization operations (which delay a convergence of exchange rates) and the absence of controls on capital inflows tends to maximize the influx of short-term capital and its possible destabilizing effect (IMF, 1995).

Two countries which constitute successful cases of external adjustment (Chile and Colombia) are also noteworthy for having achieved lasting fiscal equilibrium. In both countries the pre-crisis situation of public accounts was more favourable than in the other cases considered; when the fiscal adjustment was carried out, a vital level of public investment was maintained, and the two countries now have the highest ratios of tax and current revenues to GDP, not counting the revenues generated by privatizations. In short, their fiscal adjustment methods were based on growth, and combined a reduction and streamlining of expenditure with higher tax receipts and current revenues.

### F. THE NEW MACROECONOMIC PANORAMA

An overall assessment of the situations described above leads to the conclusion that, as compared with the second half of the 1980s, the early years of the 1990s have demonstrated a clear change in the macroeconomic environment, which is now characterized by the reduction of

<sup>14</sup> Chief among these are the microeconomic costs linked to lesser efficiency in financial intermediation and the macroeconomic costs resulting from the quasifiscal losses which the monetary authorities sustain in paying higher interest on their domestic debt than is yielded by the international reserves obtained through such policies. Nor is it efficient, moreover, to seek to neutralize all the impact on the exchange rate, even if it is perceived as temporary, since to do so stimulates foreign exchange arbitrage and limits the freedom of action of monetary policy (Zahler, 1992).

In April 1994 the Mexican financial authorities encouraged the replacement of government securities denominated in local currency (Treasury Certificates (CETES), etc.) by Federal Treasury Bonds (TESOBONOS), instruments whose value was indexed to the exchange rate, thus in practice affording full certainty as to exchange rates. In an environment sensitive to political and economic turbulence, this measure had the effect of increasing the value of TESOBONOS in circulation from somewhat under US\$ 2 billion in April to nearly US\$ 29 billion in December 1994.

public-sector deficits, more restrained monetary growth, the recovery of investment rates and higher levels of employment. The increases in real exchange rates, meanwhile, were either smaller than during the most critical phase of the adjustment process –a trend attributable, in part, to the higher influx of capital into the region— or have turned into appreciations in countries which have chosen to implement stabilization policies based on a greater use of available external resources.

This new macroeconomic environment, and the reforms which helped to shape it, have, with some exceptions, resulted in a trend towards lower levels of inflation. This trend has emerged in an international financial context conducive to more appropriate combinations of adjustment and financing policies in response to sudden domestic and external changes. Thus, during the early 1990s, a growing number of countries have shown inflation rates of under or close to 10%, in clear contrast to the previous situation.<sup>16</sup> Even Brazil, the only country which continued to have a high inflation rate, took this route in 1994, by successfully implementing a stabilization programme.

The use of real currency appreciations and external financing as anti-inflationary tools has contributed, at least temporarily, to the achievement of stabilization in some countries. The use of "nominal anchors" 17 has also been an important tool, especially in cases where the prior situation had been one of hyperinflation and capital flight. Nevertheless, this device has yielded better results when applied as part of a set of measures designed to establish a long-term declining trend in inflation. Some of these measures, such as permanent fiscal restructuring and actions to strengthen the solvency of the public and private financial systems, have proved to be prerequisites for the long-term success of stabilization policies.

Lastly, in late 1994, the Mexican financial crisis burst upon the regional scene. Its repercussions on the rest of the region were not as broad or lasting as had initially been feared. However, because of the crisis, some economies were forced to undergo adjustments which undoubtedly constituted a warning about the dangers of a growing trade deficit and overdependence on short-term external capital, and highlighted the need for greater consistency in economic policies and more vigorous promotion of domestic saving. Fortunately, the region's countries managed to maintain the favourable trends seen in the years immediately preceding the Mexican crisis, with the exception of Argentina, which was more heavily affected by it.

In conclusion, looking at the macroeconomic panorama of the region brings out the marked differences between national experiences. In 1995 per capita GDP exceeded the 1980 level in only nine countries; of these, only Chile, Colombia, the Dominican Republic, Jamaica and Uruguay saw an improvement of 10% or more. 18 Strictly speaking, the countries in this subgroup are those which are close to their production frontier. However, the pattern of economic performance which was being established in most countries of the region was characterized by moderate expansion, with growing financial stability and access to external financing.

## G. EMPLOYMENT AND SOCIAL EQUITY

During the period of crisis and adjustments in the 1980s, the fragile equilibrium employment achieved during the previous growth phase was shattered. Real wages fell, open unemployment

<sup>16</sup> Inflation rates in most of the Caribbean economies have been moderate.

<sup>17</sup> This refers to the setting of a nominal level for a given economic policy instrument (exchange rate, public spending limit, etc.), with a view to exerting a downward pull on prices.

In 1994 only eight countries had managed to equal or exceed the 1980 rates. Because of Argentina's performance in 1995, it fell below that level again, while Paraguay and Barbados joined the first group.

increased and the percentage of the labour force employed in sectors of lower average productivity grew.

As a result of this trend in the labour markets, which in some cases was exacerbated by the effects of galloping inflation and capital gains linked to financial speculation or sudden deregulation, income concentration increased further during this period. Nearly all countries of the region experienced intense processes of income redistribution during the 1980s; by the end of the period, the inequality indices were higher than before the crisis. Furthermore, the growth of inequality and the drop in per capita income caused a considerable increase in urban poverty.

The recovery of a capacity for growth during the early years of the 1990s was not reflected in significant decreases in the unemployment rate. At the same time, the largest share of new jobs continued to be generated in the sectors with lower levels of productivity and compensation, while employment in formal activities involving large private corporations and the public sector decreased (ILO, 1994, 1995). Thus, what was occurring was an increase in the percentage of occupations of lower average productivity, along with a loss of relative income for own-account workers, specifically, those who were neither professionals nor technicians (ECLAC, 1995f).

Of the economies that have completed their recovery phase, and are now operating in new macroeconomic and regulatory situations with a high level of utilization of productive capacity, only Colombia (temporarily) and Uruguay have achieved lower levels of inequality than they exhibited prior to the crisis. Chile, a country in which the transformation process has matured, and which is now on the path to sustained growth, emerged from the crisis with a level of inequality that was the same or higher than before (Altimir, 1995), and has been able to reduce it only marginally during the recent growth phase. In the other economies, the current levels of inequality are significantly higher than before the crisis.

In addition, during the early years of the 1990s, the incidence of poverty remained alarmingly persistent. While some countries have managed to reduce poverty considerably, poverty levels in general continued to be higher than before the crisis and, in most cases, growth rates alone have been insufficient to bring about significant reductions.

In conclusion, with few exceptions, the new growth phase that began in the 1990s has not shown major progress in generating employment and increasing social equity. The effects of the crisis exacerbated the social lags accumulated during the prior growth phase. The recent economic recovery only partially softened this impact, and sustained growth, in and of itself, is not improving the regressive pattern of income distribution. On the contrary, the new mode of functioning of the region's economies has shown some unfavourable tendencies, and while in some cases these may be temporary, in other cases it is to be feared that they may gradually become permanent features, and thus targets for appropriate preventive policies.

## III. CHANGING MICROECONOMIC PATTERNS<sup>19</sup>

Inward-looking industrialization, aimed at import substitution, characterized the 30 years following the Second World War. The productive systems developed at that time had certain features which subsequently influenced their ability to compete in world markets. With few exceptions (mainly in Brazil and Mexico), factories were very small, displayed a high level of vertical integration, generated minimal technological knowledge - and even that was geared mainly to solving problems connected with a type of industrial organization in which competition was not a pressing concern- and lagged relatively far behind in product designs and technologies. It is not surprising, therefore, that the import-substitution model of industrialization was linked to static and dynamic diseconomies; this became clear years later, under the hammer blows of external competition and the accelerating pace of techno-logical change in the industrialized world.

The arrival of foreign industrial capital had major implications. It not only incorporated models of work organization and production planning, methods of subcontracting and outsourcing and supplier development, quality control techniques and other general methods which up to then had not

been integrated into the countries' productive systems, but also made it necessary to adapt these methods to local conditions. The first local experiments in assembly-line production of consumer durables and cars were specifically associated with the arrival of foreign capital during the post-war years. As regards industrial organization, the presence of foreign capital in the region led to the formation of highly concentrated oligopolic markets, in which the pressure of external competition was also conspicuously absent, owing to high tariff barriers.

The large-scale mining activity associated with transnational corporations, whose level of technology did not deviate much from the best international standards, developed along similar lines. The same could not be said of small- and medium-scale mining enterprises, which lagged behind in absolute terms, especially with regard to environmentally sustainable technologies.

Despite its vulnerable starting-point, import-substitution industrialization set in motion a dynamic process of assimilation and development of technological capacities in countless fields of production. Years later, this fact was reflected in the gradual expansion and diversification of exports of more

<sup>19</sup> This chapter summarizes chapter III of the ECLAC document entitled The economic experience of the last fifteen years. Latin America and the Caribbean, 1980-1995 (LC/G.1925(SES.26/17)), Santiago, Chile, 1994

technically complex manufactures and in the closeness of many firms and industries to the international technological frontier, which, it is true, did not display the same momentum in those years as it had during the 1980s. In the late 1960s and early 1970s, Brazil, Argentina, Mexico and Colombia increased their exports of moderately complex capital goods, such as boilermaking equipment, and sales of turnkey industrial plants, to firms in Bolivia, Ecuador, Cuba, Venezuela and other countries.

Nevertheless, the international technological frontier began to shift very rapidly towards the end of the 1970s. The discovery and rapid dissemination of microprocessors and numerical control capital goods rendered the electromechanical technological capacity developed up to then by regional firms obsolete. Later, the development of flexible manufacturing principles contributed still further to the growing technological lags in Latin American industry. Added to this was the debt crisis and the resulting constraints on investing in industrial facilities. All these circumstances led to the gradual loss of dynamism of the technological and financing models on which post-war industrial development was based. The first model depended on foreign technology imports and neglected the development of a system of technological innovations better integrated into the countries' goods- and services-producing systems; the second was based on external financing and systematic support from the public sector for private accumulation.

The gradual but clear shift of the global technological frontier from electromechanical technologies to electronic and data-processing technologies simply increased the relative lag due to the region's poor macroeconomic performance. In general, despite major intercountry differences, the new "ground rules" and the various

types of linkages with the global economy generated highly varied patterns of adaptation among firms, industries, regions and agents within the productive structure, as the conceptual model on which the reforms were based had assumed. The reaction of the productive structure to changes in the regulatory model and the system of incentives was, however, far from homogeneous and universal; thus, a growing heterogeneity was created within each country's productive system.

At the sectoral level, export-oriented natural resource processing activities (agroindustries, mining, petrochemicals, cellulose and paper, fish meal, vegetable oils, iron and steel, aluminium) tended to be less affected by changes in the "ground rules". Firms in this sector managed to adapt positively to the new competitive environment, thus maintaining their growth rate and significantly improving their export capacity. Deregulation also tended to favour agriculture, despite the effects of the dismantling of many sectoral policies as part of the liberalization process.

As the garment industries failed in the Caribbean under the prevailing regime, governments sought to resuscitate and expand them, with some success, within the ambit of export processing zones where they were subject to neither domestic nor regional regulations.

The industries producing for the domestic market, however (textiles, garments, footwear, capital goods) were greatly affected, first, by the initial drop in the level of economic activity resulting from macroeconomic stabilization plans, and, second, by external deregulation. Small- and medium-scale domestically owned enterprises producing for the domestic market felt the harshest impact of the transition to the new development model.<sup>20</sup>

It was assumed that the microeconomic and sectoral sphere would

<sup>20</sup> In this regard, it is significant that over 6,000 industrial establishments in Chile –the vast majority of them small- and medium-scale enterprises in the metallurgical, textile, clothing and footwear industries– shut down over the course of a decade. A similar phenomenon can be seen in the cases of Argentina and Colombia.

somehow adjust to the new regulatory framework and the system of macroeconomic incentives, and would, following the restructuring phase, gradually regain international competitiveness. Accordingly, sectoral policies, investment promotion schemes and, in particular, industrial policy measures, virtually disappeared, and macroeconomic concerns took precedence over microeconomic ones.

The national differences in the stabilization and structural reform process, which are clearly visible at the macroeconomic level, are also significant at the microeconomic level. They can be perceived in the responses of economic agents and the productive structure as a whole to changes in the overall system of incentives and the regulatory framework. Some mature firms and productive sectors adapted more quickly to the new international scenario and the new "ground rules" involving stiffer competition; thus, in each country, differences can be seen among the various economic activities and productive sectors, depending on their capacity to absorb the impact of the new circumstances.

The differences in adaptability were visible even among enterprises in the same industrial or primary sector. Thus, a growing disparity emerged within those productive sectors, and an obvious change occurred in the behaviour of markets and the productive system as a whole. As a result, the processes of macroeconomic stabilization and structural reform have increased the structural heterogeneity and have also, in general, led to a distinct process of economic concentration.

From the standpoint of adaptability, enterprises can be classified in at least three categories. The first, or proactive, category includes those which adapted to the environment by making new investments, installing plants with technologies based on microelectronics, and adopting flexible manufacturing and just-in-time production principles. Furthermore, these enterprises developed new quality control standards (ISO 9000,

United States Good Manufacturing Practices (GMP), etc.), new methods of subcontracting and outsourcing and utilizing international tariff exemptions, and new labour-management relations. While they still constitute a minority within the industrial sector in terms of the number of economic agents, they certainly represent a larger relative share of GDP. In agriculture, too, a group of modern or rapidly modernizing enterprises emerged which was characterized by large productivity increases and a flexible incorporation of technological inputs; they registered strong increases in production, especially of goods for export. Lastly, impressive progress in efficiency, organization and technology assimilation was also noted in the service sector, particularly in financial, telecommunication and energy services and consultancy and professional advisory

The second group of enterprises, which might be termed defensive, has shown a certain capacity to adapt through organizational adjustments, changes in the workforce and modest accommodations to the new competitive framework, without large investments of physical capital.

The third group, which includes enterprises that might be called passive, is characterized by a lack of response and a feeble inclination to adapt to the new forms of competition. The bulk of agricultural enterprises, which use traditional inputs and production methods, fall into this category, as do a good number of small- and medium-scale industrial enterprises. Having been hurt by the abolition or limitation of sectoral policies, or by the weakness of productive development policies, they have been unable to take full advantage of the opportunities offered by a more favourable macroeconomic environment.

The emerging productive structure is characterized, in its microeconomic and systemic dimensions, by three central features: i) changes in the organization and planning of production at the level of each firm; ii) changes in the structure and behaviour of markets and institutions and in the patterns of industrial organization in the various sectors of activity (including agriculture), and iii) changes in the relative contributions of various activities to each country's gross domestic product. Overall, these three elements are giving rise to a new socially organized productive framework which is much more heterogeneous than the previous one and has different linkages with world markets. It displays clear differences in terms of the sources of growth of productivity, investment, employment, imports and exports.

The proactive enterprises are going through a period of vast changes in their production, planning and work organization technologies. New production methods are being established at the microeconomic level, including: i) less vertical integration within the plant, which implies more outsourcing and subcontracting within and outside the country; ii) greater specialization in the final stages of assembly, which dispenses with the intermediate manufacturing of parts and components; iii) a smaller variety of locally manufactured products and direct importing of finished units to supplement the range of goods marketed in the country; iv) greater integration within globalized productive systems or chains of a multinational character, in which each firm contributes only a small portion to the larger system and therefore uses more standardized internationally approved technologies, thus dispensing with domestic efforts to adapt technologies or product designs; v) a trend towards real-time production, i.e., just-in-time, total-quality (or zero-defect) production with no inventories or minimal inventories; and, lastly, vi) growing professionalization of technical and managerial networks and better financial management, attuned to opportunities for obtaining domestic and foreign financing.

The foregoing obviously implies decisive changes in management and marketing techniques, labourmanagement relations, links with

suppliers and contractors, financing and other areas. The individual enterprise characteristic of the import-substitution model is giving way to a much more systemic and interactive organizational pattern in which modernization and technological change reflect how much is being learned not only by doing the job, but also through interaction with others. The inward-looking model of technology assimilation, focused mainly on technical and engineering problems specific to the enterprise, is insufficient for developing an ability to compete in world markets; work experience is shifting towards systemic and interactive scenarios in which assimilation takes place within networks or clusters featuring an abundance of externalities and interdependencies between individual economic agents. Issues such as the lead time required for placing a new product on the market and its format and distribution are acquiring new importance. Nowadays it is not enough to be efficient; quality and timeliness must also be achieved. A number of entrepreneurs in the region understand these circumstances and are managing to adapt to them. Their experience, now concentrated in a segment comprising modern firms, should be extended to those enterprises which have so far adopted a defensive or even passive stance.

Major transformations are also being seen in the structure and institutional behaviour of a large number of markets. Mention should be made here of the factor markets -capital, labour, technology- and of widely used intermediate inputs, such as energy, telecommunications, transport and port facilities; they have been deregulated in various countries of the region and their functioning has been streamlined. In many cases this implies a shift to international prices closer to the real opportunity cost of the resources. This means, in particular, that efficient energy use has become one of the pillars of competitiveness.

Moreover, the degree of economic concentration has grown significantly.

The new set of regulatory signals and macroeconomic incentives has become a powerful selective mechanism which has enabled certain firms to gain ground within each sector; others have lost ground or even disappeared from the market. In recent years, large domestically owned groups, horizontally and vertically integrated into conglomerates which have high market power and are strongly influential, have become prominent in various national contexts. The factors contributing to this include: i) the transfer of private external debt to the State; ii) the highly concentrated distribution of the benefits of industrial development schemes which promoted the establishment of capitalintensive natural resource processing industries; iii) the distribution, also concentrated in the hands of a few economic agents, of the fiscal incentives for exports of manufactures granted by various countries during the 1970s and 1980s, and iv) in some cases, hasty privatization processes which did not sufficiently safeguard the preconditions for competitiveness or undervalued the prices of public assets. Preferential access to all these types of State subsidies was what made possible the explosive growth of many of the large domestically owned conglomerates over the past decade and their gradual transformation into global players.

The productive system has responded to the new macroeconomic and regulatory signals by shifting to a relatively greater use of natural resources, leaving aside, for the time being, relatively more complex engineering- and technology-intensive products and activities. This is apparent at the level of individual firms and of the productive system as a whole.

There is a distinct process at work which is establishing a new pattern of international specialization. As a result, the region's countries appear to be increasingly dedicated to highly standardized industrial products over whose international prices they have no

decisive say, since the products are traded in highly competitive markets. <sup>21</sup> From this standpoint, the productive system is adapting to a new set of relative prices that are closer to the opportunity cost or international price of the resources; at the same time, however, the main sectors of activity have become technologically less complex than during the importsubstitution phase or have lost the capacity to stimulate technology assimilation processes in other sectors.

With regard to the mining industry, there is a world-wide trend towards greater concentration, with the large transnational corporations having greater influence and power. These firms have dealt with their lower profit levels by introducing new technologies into all phases of the productive cycle. The exhaustion of high-quality reserves in the world's industrialized regions has encouraged the exploitation of the developing countries' mines, which are still seen as attractive because of their high-grade mineral content and the existence of megadeposits that have been discovered through technological advances in the field of exploration.

These changes in the mining industry have favourable implications for the region. Transnational corporations, attracted by the existing natural advantages, financial deregulation and policies to promote foreign investment, as well as changes in the mining laws, are using highly advanced technologies which make it possible to utilize minerals that were previously unusable because of their low grade or for other reasons, and to conduct mining operations in a more environmentally responsible way. In Latin America, the main technological changes are linked to copper and gold mining.

Likewise, auspicious processes of incorporating technology into the exploitation and productive management of natural resources (agriculture, forestry, fishing and mining) can be perceived, as can modernization processes in financial,

<sup>21</sup> There are exceptions, as there may be for Brazil with regard to cellulose and paper, in that the supply situation in the country has a significant impact on the markets for these products.

telecommunication, energy and transport services. An important task of productive development policies is to consolidate such gains and increase their capacity to radiate outward to the other sectors of the economy.

Regional productivity has surged –significantly, in some countries– due to changing production patterns and economic recovery, which brought with it a higher level of capacity utilization.

Agricultural productivity has grown since the 1970s, a fact which is chiefly responsible for the sector's good performance. Nevertheless, a wide gap remains between the region's agricultural sector and that of the developed countries, because of both lower capitalization (as reflected in the level of mechanization and access to irrigation) and technological factors (poor land management and insufficient use of fertilizers and improved seeds).

In large-scale mining, productivity has increased notably, particularly because of new investment in advanced technology that incorporates norms of environmental sustainability in operating methods. The restructuring of existing mines has also contributed to these improved results. Small- and medium-scale mining, however, still lags far behind in terms of technology.

Manufacturing activities, whose productivity grew by between 2% and 3% per year, were affected by the regional crisis. Beginning in 1985, however, per capita output regained its momentum and even exceeded the rates of the previous decade. In the 1990s, medium- and large-scale industry recorded higher rates than in the 1970s and 1980s. This improvement was partially due to a higher level of capacity utilization and, especially, to changes in the organization of production. It was achieved, therefore, with relatively little new investment, but with substantial disembodied technical progress and a drop in employment.

Productivity in the service sector, which had increased during the 1970s, fell during the 1980s, and in some countries only recovered in the 1990s.

It bears repeating, none the less, that the productive momentum currently being generated, in the midst of a transformation of the development mode, is occurring in a context of greater economic concentration and heightened structural disparities —in other words, of vast differences in productivity from one sector to the next, at least in non-agricultural activities.

While modernization in these areas has progressed rapidly and has encompassed significant sectors of medium- and small-scale producers, the tremendous differences in productivity between commercial and subsistence agriculture (in terms of access to land, water for irrigation and capital, as well as incorporation of technology) have continued unabated.

In the mining sector, it is clear that the momentum has not extended to small-and medium-scale mining, which lags increasingly far behind in comparison with large enterprises employing advanced technology on a par with that of only a few transnational corporations.

The accelerated increase in industrial productivity in the 1990s has been concentrated in medium-scale and large enterprises. Progress in small-scale industry, however, has been minimal or non-existent, which has widened the gap between enterprises at different levels.

The figures on the increased productivity of the secondary sector as a whole (mining, manufacturing and construction) from 1990 to 1993 are clearly lower than for large and medium-scale enterprises over the same period. Taken together with the productivity increases in large-scale mining referred to above, these results suggest that during this period of recovery and growth, labour productivity has fallen significantly in small- and medium-scale manufacturing, construction and probably also in small-scale mining.

In the tertiary sector, the profound restructuring of some activities, such as telecommunications and financial services, has led to strong productivity increases in many countries. At the same time, however, the expansion of less productive activities has continued to foster the growth of employment in the sector as a whole. The fact that in many countries a strong modernization of some tertiary activities exists alongside an expansion of informal activities indicates that in this sector, too, the productivity gap is tending to widen.

Moreover, it is becoming clear that production is concentrated in enterprises belonging to large domestically owned or transnational conglomerates of an entrepreneurial nature. This is due partially to a growing capital intensity, linked to the greater momentum generated by primary product industries, and also to the concentration of financial resources and the earning of capital gains and new quasi-rents by these conglomerates, which in most countries have arisen during the adjustment and structural reform processes.

## IV. THE SAVINGS AND INVESTMENT PANORAMA<sup>22</sup>

One of the striking features of the 1980s was that, to one degree or another depending on the country, rates of saving and rates of investment in particular dropped sharply in comparison with previous decades. Although savings and investment ratios have been rising gradually in the 1990s, in most countries they have still not regained pre-crisis levels. Accordingly, it is useful to consider the factors that have influenced the generation of national savings and capital formation.

The following conclusions can be drawn from the studies conducted on this topic:<sup>23</sup>

i) The level of national savings improves in a favourable macroeconomic and institutional context. Consistent macroeconomic policies contribute to increasing non-inflationary domestic financing and enable the foreign exchange, money and goods markets to send stable signals leading, over time, to an efficient allocation of resources. Progress in institutional development can strengthen the efficiency of financial systems in attracting, coordinating and allocating resources, while ensuring that they are supervised and regulated in accordance with the highest standards.

ii) While interest rates do not have a decisive influence on the volume of savings, they contribute to a more efficient use of available resources and to control of capital movements.

iii) A variety of data exists concerning the trade-off between public and private savings which strengthens the view that there is a need for greater complementarity between the two types of savings.

iv) Efforts to promote saving may be fruitless if external conditions place major constraints on growth. For example, transfers of resources abroad, generated by external debt, consumed a high proportion of the income which would otherwise have been available as savings, thus reducing the level of investment necessary to ensure sustainable economic growth.

v) Devaluation has had an ambiguous effect on public savings, depending on whether governments could derive benefits from it or whether public accounts were adversely affected by it.

vi) Given the fiscal and balance-ofpayments constraints caused by external debt, the resumption of external financing could enhance the efforts to promote national savings; in practice, however,

<sup>22</sup> This chapter summarizes chapter II of the ECLAC document entitled *The economic experience of the last fifteen years*. Latin America and the Caribbean, 1980-1995 (LC/G.1925(SES.26/17)), Santiago, Chile, 1996

<sup>23</sup> Including two surveys carried out by ECLAC: Massad and Eyzaguirre (1990) and Held and Uthoff (1995).

such financing frequently leads to an excessive rise in consumption at the expense of savings.

#### A. MACROECONOMIC DETERMINANTS OF NATIONAL SAVINGS

Table IV.1 shows the relative importance of the chief determinants of the gross national savings ratio among a broad sample of countries in the region for the period 1970-1990. The level of real per capita income and its growth rate are among the chief determinants of this ratio. Nevertheless, the results indicate that savings are not very responsive to changes in these variables, despite their statistical significance, and that, contrary to the postulates of the permanent-income theory or the life-cycle theory, economic agents in the region do not discriminate between permanent and temporary income. A large number of income variations are viewed as permanent and thus influence these agents, short-run consumption levels.

The regressions in table IV.1 indicate that cyclical variations in income tend to have a positive but small impact on savings and therefore a large impact on consumption.<sup>24</sup> This result reflects the fact that in the experience of the region as a whole, sudden external or internal changes which generate "temporary" increases in income have a positive impact on consumption levels, implying the possibility of overadjustments in this

variable, with the resulting drop in national savings.

Two factors can account for this behaviour. First, there are indications that economic agents in the region frequently face liquidity or credit constraints (Schmidt-Hebbel, Webb and Corsetti, 1992). Under these circumstances, consumption, due to its responsiveness, reacts to temporary fluctuations in income (Flavin, 1981; Hall and Mishkin, 1992). Second, the strong reaction of consumption to variations in income may be due to a situation of "repressed consumption". Given the low levels of per capita income, especially during the 1980s, increases in income have largely been allotted to increasing consumption.25

### B. EXTERNAL SAVINGS AND NATIONAL SAVINGS

A second striking aspect of the estimates shown in table IV.1 is the adverse impact which the level of external savings had on national savings and the fact that this impact was greater if external savings rose above its trend value. The negative response of national savings to cyclical variations in external savings implies that the types of linkages which exist with the international financial markets have an important influence on national savings levels.

These equations show that a 1% increase in external savings over its trend level reduces national savings by around 0.5% of GDP. Moreover, external savings

<sup>24</sup> The fact that very little is saved from temporary income suggests a marginal non-zero propensity to consume, which is contrary to the permanent-income hypothesis. While a deviation in income from its trend level has a positive influence on saving, the savings ratio is in the range of 0.2%, which indicates that in order to increase savings by 1% of GDP, observed income must exceed its trend level by an amount equal to 5%.

The estimates in table IV.1 analyse other factors which also influence the proportion of disposable income allotted to savings: i) the age structure of the population. A higher dependency ratio should be accompanied by a lower savings rate, since dependents are not, in principle, capable of saving; ii) inflation, given its effect on the expectations regarding real rates of return on financial instruments; and iii) the terms-of-trade effect on real income. Nevertheless, the statistical results derived from these estimates are either negligible, as in the case of the first two factors, or do not confirm the theoretical assumptions, as in the third case. A more precise measurement of the influence of this last factor would require further refinement of the model used in preparing the estimates.

Table IV.1

DETERMINANTS OF GROSS NATIONAL SAVINGS:
EFFECTS OF THE CYCLE AND TREND IN INCOME AND NATIONAL SAVINGS

Estimating technique	Independent variables									
	Cons- tant	Per cápi	Per cápita income		In- fla- Growth	Age depen- dency	Terms- of- trade	External savings  (Percentage of GDP)  Trend		Adjus- ted R <sup>2</sup>
		(in logarithm) Trend								
		Trend	devi- ate			ratio	effect	Trend	devi- ate	
1. Fixed effects,										
including		0.05	0.21	0.001	0.18	-0.02	-0.25	-0.10	-0.53	
Brazil		(3.9)	(12.6)	(2.7)	(4.5)	(0.7)	(7.8)	(0.9)	(11.6)	0.69
and Peru										
2. Fixed effects,										
excluding	0.08	0.08	0.21	-0.0005	0.21	0.003	-0.25	-0.09	-0.52	
Brazil and Peru	(4.6)	(3.5)	(11.8)	(0.1)	(4.6)	(0.1)	(7.4)	(0.7)	(10.9)	0.75
3. Random										
effects, in-	0.11	0.05	0.25	0.002	0.16	0.10	-0.29	-0.31	-0.50	
cluding Brazil and Peru	(6.1)	(7.3)	(13.3)	(3.5)	(3.4)	(4.7)	(8.7)	(3.4)	(10.0)	0.76
4. Random										
effects, ex-		0.06	0.24	-0.024	0.20	0.06	-0.129	-0.19	-0.53	
cluding Brazil and Peru		(10.8)	(11.2)	(3.3)	(3.96)	(3.3)	(3.1)	(2.0)	(7.9)	0.82

Source: ECLAC, on the basis of official data provided by the countries.

Note: T-statistics shown in brackets.

has replaced national savings to a far greater extent in those countries which regained access to international capital markets at the start of the 1990s. As a result, they adopted macroeconomic policies that have resulted in significant overspending in relation to national income, and have relied on growing appreciations in the exchange rate as a means of stabilization. These characteristics have been especially notable in those countries which had to repress their consumption during the 1980s because they did not have access to external financing during their phases of adjustment to the external debt crisis.

Moreover, the rapid influx of financial capital has not been reflected in the creation of productive assets; rather, a "wealth" effect has been produced as a result of a rapid appreciation in the price of existing assets. Thus, the capital inflows translated into higher trends towards consumption.

The countries of the region which increased their disposable national income from 1990 to 1993, with current-account deficits that were relatively moderate and, in some cases, lower than during 1983-1986 and equally moderate exchange-rate appreciations (e.g., Chile and Costa Rica), 26 have maintained relatively high levels of national savings. At the other end of the spectrum are the countries that have widened their current-account deficits excessively, relied on exchange-rate appreciations as a means of stabilization, and have been unsuccessful in their efforts

<sup>26</sup> It should be noted that both countries received major external financial support in adjusting their economies to the impact of the debt crisis.

to increase national savings (Argentina, Colombia, Mexico, Paraguay, Peru and Venezuela).<sup>27</sup> Ecuador occupies a middle ground.

## C. DETERMINANTS OF INVESTMENT

According to the empirical studies available, 28 the investment decisions of the region's private sector depend not only on the factors traditionally emphasized in theoretical approaches, 29 but also on specific factors derived from the context in which firms operate, such as the stability of policies, the characteristics of the financial markets and agents' level of confidence and access to the appropriate infrastructure.

One of the characteristics of the macroeconomic context which has influenced investment decisions and, in turn, clearly sets it apart from the context in which the developed countries operate, is the instability of basic prices exchange rates, interest rates and consumer prices. According to the studies cited, entrepreneurs, being risk-adverse, base their investment decisions on both the mean and the variance of the variables which affect the profitability of their investments. The stability predictability of the system of incentives appear to be at least as important as their level.

This circumstance underscores the importance of macroeconomic stability and of clear and constant rules if entrepreneurs are to respond positively to new policies. Accordingly, bad timing and inconsistencies in economic policy or between various reforms which have affected the stability and predictability of relative prices may have influenced the

slowness with which investors have responded to the new incentives.

The current literature emphasizes the importance of risk and the irreversibility of investments due to the major losses which the transfer of capital to another activity implies. <sup>30</sup> This causes investors to delay their decisions, especially if macroeconomic conditions and policies are unstable. The greater the degree of uncertainty, the greater the benefits to be gained by waiting, and, accordingly, the slower the response by investors to an improvement in macroeconomic conditions.

The considerable, and in some cases, extreme price instability which some of the region's countries have experienced is reflected in the coefficients of variation in the consumer price index (CPI), real exchange rates and interest rates, which are shown in table IV.2 for the period 1978-1994. For all of the countries analysed, the subperiods 1982-1984 and 1985-1989 show a strong increase in these coefficients, which have been influenced, especially in the later period, by the hyperinflationary situations in Argentina, Brazil and Peru in the late 1980s. From 1991 to 1994, however, a slow-down in inflation and, in particular, in real exchange rates, was seen in a growing number of countries.

It is also clear that the variability of real interest rates has remained well above that of the CPI or real exchange rates in all countries; this factor, added to very high rates in some countries (see table IV.3), contributed to discouraging investment projects, by making investment viable only in the case of highly profitable projects that were located in monopolistic markets or had tied financing.

The studies also underscore the importance of three price ratios. Two of

<sup>27</sup> With the exception of Paraguay, these countries did not have access to a large amount of external financing for their adjustment programmes following the debt crisis.

<sup>28</sup> A useful summary appears in Serven and Solimano (1993).

The income accelerator, in the Keynesian approach, to which, in the neoclassical framework, the relative factor price is added, or in the Tobin *q* theory approach, the ratio between the shadow price of an additional capital unit and its market price.

<sup>30</sup> See, in this context, Dixit (1989, 1991 and 1992), Pindyck (1988, 1991 and 1993) and Pindyck and Solimano (1993).

Table IV.2
INSTABILITY INDICATORS

(Variation coefficients)

	Consumer price index			Real exchange rate				Real interest rate				
	1978- 1981	1982- 1984	1985- 1990	1991- 1994	1978- 1981	1982- 1984	1985- 1990	1991- 1994	1978- 1981	1982- 1984	1985- 1990	1991- 1994
				S	tabilized	economie	es					
Colombia	0.11	0.07	0.09	0.04	0.03	0.02	0.03	0.04	0.80	0.23	0.39	0.29
Chile	0.18	0.28	0.15	0.12	0.05	0.09	0.03	0.03	0.41	0.55	0.66	0.86
		E	conomies	which ha	ive made j	progress t	owards st	abilizatio	n			
Mexico	0.05	0.19	0.17	0.09	0.04	0.09	0.05	0.03	•••	0.72	0.59	1.15
Costa Rica	0.22	0.33	0.18	0.14	0.08	0.06	0.02	0.02	0.33	2.26	0.23	0.21
Bolivia <sup>a</sup>	0.24	0.44	0.49	0.08	0.06	0.31	0.13	0.01	0.26 <sup>b</sup>	0.45	0.01 <sup>a</sup>	0.19 °
			Ec	onomies 1	with persi	istently hi	gh inflati	on				
Ecuador	0.11	0.29	0.13	0.12	0.03	0.05	0.07	0.04	0.36	1.65	3.68	2.19
Venezuela	0.16	0.16	0.25	0.09	0.04	0.06	0.11	0.05	·	•••	0.58	0.39
Uruguay	0.13	0.19	0.08	0.09	0.06	0.11	0.04	0.04	3.03	0.38	0.24	0.14
			Eco	nomies w	ith hyper	inflationa	ıry episod	les <sup>e</sup>				
Argentina	0.11	0.18	0.52	0.47	0.14	0.15	0.17	0.04	0.15 b	1.13	2.25	0.33
Brazil	0.09	0.08	0.33	0.34	0.04	0.04	0.04	0.07	0.68	0.81	1.00 d	1.18
Peru	0.10	0.10	0.44	0.40	0.05	0.04	0.18	0.05	•••		0.53 a	1.35

**Source**: ECLAC, on the basis of official figures.

them (the terms of trade and real share prices) are linked to the profitability of investments. The third is linked to the cost of capital, measured either by the relative price of gross domestic investment in relation to the implicit GDP price deflator or by the real exchange rate index, which influences the cost of imported machinery and equipment.

The drop in the terms of trade had a general impact on all the countries of the region, adversely affecting the process of capital accumulation, given its strong association with the variability of private investment.<sup>31</sup>

Real currency devaluation was a central component of the adjustment policies adopted in response to the external debt crisis. While it stimulated the export sectors, it discouraged investment in the other sectors of the economy, by increasing the cost of imported machinery and equipment and thus the cost of capital, especially in countries which do not manufacture such investment goods. Moreover, firms whose debts were denominated in foreign currency saw the financial cost of their debt rise rapidly.

In more highly industrialized countries with less open economies (such as Brazil, Mexico and Colombia), the

<sup>&</sup>lt;sup>a</sup> 1986-1990 average.

<sup>&</sup>lt;sup>b</sup> 1980-1981 average.

<sup>&</sup>lt;sup>c</sup> 1991-1993 average.

<sup>&</sup>lt;sup>d</sup> 1985-1989 average.

e Argentina in the period 1988-1990; Brazil from 1987 to 1994; and Peru from 1988 to 1990.

In this connection, Cardoso (1993), through panel regressions which include data on Argentina, Brazil, Chile, Colombia, Mexico and Venezuela for the periods 1970-1983, 1974-1977, 1978-1981 and 1982-1985, concludes that the drop in the terms of trade accounts for a major share of the variance in the ratio of private investment to GDP.

Table IV.3
RELATIVE PRICE INDICATORS

	Real exchange rate indices (1978-1980 average =100)			Coefficient of investment and GDP b deflators Indices: 1978-1980 average =100				Real interest rates (percentages) <sup>a</sup>				
	1978- 1981	1982- 1984	1985- 1990	1991- 1994	1978- 1980	1982- 1984	1985- 1990	1991- 1994	1980- 1981	1982- 1984	1985- 1990	1991- 1994
Argentina	92.5	144.8	129.4	48.8	100	104	97	86	17.7	61.9	39.7	33.9 °c
Bolivia	90.5	71.8	82.7	76.9	100	117	87	100	-11.2	-53.0	-12.2	32.2
Brazil	97.2	107.6	91.9	52.3	100	116	131		-13.3	20.6	99.8	c
Chile	91.6	91.3	115.4	83.4	100	105	105	107	17.7	25.5	9.2	9.8
Colombia	94.7	78.1	107.0	93.9	100	98	114	110	2.4	6.3	6.2	8.7
Costa Rica	114.1	127.9	106.7	88.9	100	127	100	95	-17.0	-8.9	11.8	13.8
Ecuador	94.1	80.2	110.5	98.7	100	103	128	135	-5.6	-10.6	-7.4	-1.1
Mexico	91.8	94.7	85.4	50.3	100	103	110	96	***	-12.8	-2.1	5.6
Peru	92.0	72.5	48.0	17.9	100	112	126	•••				27.1
Uruguay	90.6	98.8	97.6	56.2	100	101	113	106	10.3	27.6	18.9	29.0
Venezuela	93.0	72.6	101.7	94.4	100	87	98	94	***	•••	-13.6	-2.1

Source: ECLAC database, on the basis of official data provided by each country.

Deflators taken from national accounts.

effects of devaluation were added to those of other policies which also increased the costs of capital goods, such as temporary tariff increases or higher profits taxes. In these countries, furthermore, the drop in domestic demand reduced the output of capital goods, leading to a severe underutilization of capacity in that sector, which transferred the impact to prices.<sup>32</sup>

During 1982-1984 there was a general increase in the price of capital goods relative to all other prices in the economy. In most cases this trend continued or

deepened during the rest of the 1980s, as shown by the ratio between the implicit prices of gross capital formation and of GDP (see table IV.3). During the 1990s, this ratio fell below the 1978-1980 levels in only half of the countries considered.

Moreover, in many countries of the region, expectations of devaluation and uncertainty about the future stimulated a rise in domestic interest rates, increasing the discrepancy between domestic and international interest rates and causing the real value of capital to fall, which also discouraged private investment.<sup>33</sup>

a ECLAC, calculated as averages of monthly figures taken from IMF, International Financial Statistics.

<sup>&</sup>lt;sup>c</sup> The figures for Argentina exclude 1990 due to hyperinflation; for Brazil, no figures are shown, because they do not reflect the actual rate that enterprises were charged.

<sup>32</sup> In the case of Brazil, Carneiro and Werneck (1993) show that the relative price of investment in machinery and equipment increased by 42% in relation to the GDP deflator from 1986 to 1989; they attribute this behaviour to a major drop in capacity utilization in the capital goods-producing sector and to the high protective barriers established during that period.

<sup>33</sup> Cardoso (1993) reconciles the Mundell-Fleming and Dornbusch (1976) models to show the mechanisms by which an external shock is transmitted to the real value of invested capital.

#### Box IV.1

#### RELATIVE IMPACT OF VARIOUS MACROECONOMIC FACTORS ON PRODUCTIVE INVESTMENT

In order to assess the impact of macroeconomic factors on investment, the productive investment (machinery and equipment) function, measured in terms of its ratio to GDP, was estimated for the period 1970-1994 in eight countries selected on the basis of their available data.\* In Brazil and Mexico, the relative price indicators were not significant, and such variables as the level of capacity utilization, instability and the debt burden accounted for over 90% of the variance in the productive investment ratio. In only three of the eight countries did the investment cost and yield indicators show a significant impact. Nevertheless, it was clear that the coefficients of risk have a significant adverse impact on all the countries that have gone through major periods of instability, such as Argentina, Brazil, Mexico and Peru. In the cases of

Colombia, Costa Rica and Chile (beginning in 1985), it has been shown that investment was not significantly affected by the variability of basic prices.

In the countries in which the adjustment of domestic demand was sudden, sharp and prolonged, the level of capacity utilization proved to be significant and to have a greater impact on investment than relative prices did. This result was to be expected, as the countries in question faced a severe sales constraint which generated a high level of underutilization of capacity and adversely affected investment requirements. As expected, the debt burden led to a significant decrease in investment in four of the countries most affected by the crisis (Brazil, Chile, Mexico and Peru).

<sup>\*</sup> The exercise was conducted by means of a partial adjustment model, which has traditionally been used to illustrate the dynamic of an adjustment process aimed at achieving a desired capital stock. The explanatory variables are the following: i) those related to the income accelerator effect, i.e., variation in cor and level of capacity utilization (ratio of actual output to potential output); ii) relative prices, i.e., the cost of capital, an approximate index of the Tobin q, and the terms of trade; iii) an instability or risk indicator, consisting of the coefficient of variability in the CP, the real interest rate and the real exchange rate; and iv) in the absence of a suitable indicator for measuring the financial constraint, a debt-burden indicator was used (the ratio of total external debt or debt service to exports of goods and services), assuming that this indicator has an inverse relationship to the availability of private-sector financing.

Box IV.1 (concl.)

### ESTIMATES OF THE IMPACT OF MACROECONOMIC FACTORS ON PRODUCTIVE INVESTMENT

Investment in	Price ratio			Demand		Debt	Insta-		-	
machinery and equipment/GDP	TT	Tobing	CK	% GDP	UCAP	burden	bility	DEX(-1)	R2	D-W
Argentina (1971-1994)			-0.002 (-2.4)				-0.03 (-3.3)	0.17 (1.1)	0.71	2.1
Brazil: PRODI (1971-1994)	4				0.11 (3.2	-0.04 (3.8)	0.73 (4.9)	0.97 (11.8)	2.1	
Colombia: IMAE (1971-1994)	4	(-1.9)	-0.03 (3.1)	0.02		(0.19)	0.13 (3.0)	0.49	0.72	2.0
Costa Rica: IMAE (1971-1994)	•		-0.11 (-3.80)		0.26 (3.6)	(-1.0)	-0.08 (2.6)	0.30	0.91	1.96
Chile: IMAE (1971-1994) (1971-1984)		0.04 (5.6) 0.07			0.06 (2.0) 0.07	-0.8 (-2.8) -0.01	-0.02 (-0.7) -0.03	0.03 (0.3)	0.94	2.0 1.9
(5.3)		(3.4)	(4.3)	(-1.5)	•	0.02	0.00		0.20	
Mexico: IMAE (1971-1994)					0.44 (7.8)	-0.15 (-1.5)	-0.04 (-2.2)	0.80 (12.6)	0.95	2.0
(1982-1994)					(-1.4)	-0.06 (-2.5)	-10.0 (4.9)	0.70	0.87	1.9
Peru: IMAE (1971-1994)	0.06 (2.5)			0.10 (2.6)		-0.07 (-1.9)		0.70 (9.6)	0.93	2.2
(1983-1994)	0.06 (2.5)	-					-0.04 (5.8)	0.34 (8.8)	0.99	2.0
Venezuela: PRODI (1971-1994)	(1.2)	0.58 (2.54)				-	-0.38 (-1.9)	0.43 (2.3)	0.78	2.0

Source: ECLAC, "Student's T" statistics are shown in brackets below the coefficients; the R2 and Durbin-Watson statistics, in the last two columns.

	200
	(1980≔100): Source: national accounts.
IMAE/GDP:	Index of the ratio of investment in machinery and equipment to GDF (1980=100). Source: national accounts.
TT:	Index of the terms of trade: £o.b. exports - c.i.f. imports (1980=100). Source: ECLAC.
Tobin g	Index of share prices deflated by the Cri (1980=100). Source: IMF, International Financial Statistics.
CK:	Ratio of gross fixed capital investment deflator to CDP deflator. Source: national accounts.
% GDP:	Annual variation in CDP (logarithmic difference). Source: national accounts.
UCAP:	Ratio of actual output to potential output; potential output estimated according to the maximum values method
	(1980=100).
Debt burden:	Index of the ratio of total debt to exports or debt service to exports (1980=100). Source: ECLAC
INSTAB:	Index composed of the coefficient of annual variation in the CFI, the real exchange rate and the real interest rate,
	based on monthly data. Source: MF, International Financial Statistics.

The relative amount of external financing received by each country during the adjustment period had a key influence on the capacity of the economy to control and limit macroeconomic disequilibria. The orderly financing of external disequilibria was an important factor in the expectations of agents and reduced their degree of uncertainty, an essential element in investment decisions. The empirical studies cited concerning private investment in the region show the significance of a number of variables linked to the availability of external financing.<sup>34</sup>

Moreover, the depth of the financial markets –specifically, the availability of long-term credits and the manner in which credit is allocated, i.e., by the market or in a managed way– have also been decisive for private investment in Latin America and the Caribbean.<sup>35</sup>

#### D. INVESTMENT REQUIREMENTS FOR SUSTAINED GROWTH

Most of the region's economies are operating close to the production frontier, with high levels of utilization of productive capacity. Future growth will depend on the quantity and allocation of investment; the higher and more productive investment is, the higher the attainable growth rate will be. Realization of this potential output will, in turn, depend on macroeconomic stability, and thus on the regulation of domestic demand and the capacity to prevent or absorb external shocks.

Rapid and sustained growth for the Latin American and Caribbean countries, which will represent a gradual decrease in income disparities in relation to the developed countries, will clearly improve the region's traditional performance. Absorbing the increase in the active population will mean a systematic rise in real per capita incomes at a rate of 4% per annum, with relatively minor fluctuations from one year to the next. In order to achieve these goals, the countries must expand their gross domestic product at rates of nearly 6% per year.

On the basis of current productivity levels and the current composition of capital, such a performance will require an investment of around 28% of regional GDP, which means a 7% increase in the current average ratio (see box IV.2 and figure IV.1).

#### E. FINANCING ALTERNATIVES

The alternative to a rise of this magnitude in the regional investment ratio is to finance the additional investment effort through a significant rise in external or national savings. This alternative is illustrated by means of the simulations shown in box IV.3 and figure IV.2.

National savings will increase as a result of growth. If, however, they do so in a manner consistent with their behaviour over the past two decades, they will only rise from 18% to 23% of GDP. The remainder of the financing needed for investment will have to come from external savings, which, under these circumstances, will climb to 5.5% of regional GDP (alternative A).

Currently, in the wake of the Mexican financial crisis, a permanent current-account deficit of this magnitude cannot fail to represent a danger to stability and send an unmistakable signal to investors, unless it is financed mainly with long-term capital, and, at the same time, such resources are invested in a sound manner.

<sup>34</sup> The studies mentioned use different indicators of availability of external financing: exports, international reserves, capital inflows, real exchange rates. As Rama (1993) notes, these indicators may be linked to the "investment climate", but not necessarily to credit rationing.

<sup>35</sup> While this constraint has been taken into account in some empirical studies, it has generally been adjusted by means of liquidity ratios (such as M1/GDP or M2/GDP) that do not reflect firms' real access to credit or changes in the regulation of the banking system—factors which usually determine the availability of financing (Rama, 1993).

<sup>36</sup> Argentina, Mexico and Venezuela constitute exceptions because of recent disequilibria.

#### Box IV.2

#### CAPITAL-OUTPUT RATIO

The use of the capital-output ratio to calculate the level of investment required to obtain specific income levels in the economy assumes: i) that capital is the most important scarce factor, and ii) that the capital-output ratio is stable over time.\*

The data shown in the following table and in figure IV.1 have been derived from estimates of the fixed capital stock, exclude changes in inventories, and have been estimated on the basis of peak output in order to ensure a high level of capacity utilization (see the plus-sign lines in figure IV.1).

For the countries in the sample, the estimates generally indicate a steady decline in the overall efficiency of capital. The capital-output ratio has been relatively more stable in Colombia and Chile than in the other countries. In Colombia the series shows trends towards an increase in the productivity of capital up to the mid-1970s. The decline in the overall efficiency of capital occurs over the entire period in Brazil and Mexico, but only from the second half of the 1970s onward in Argentina and Venezuela.

If these trends are adjusted so as to be applicable to gross capital formation (including changes in inventories), two options are arrived at for estimating the investment needed to restore regional growth rates of 6% per annum. The first option is based on the ratios observed during a period of greater stability and growth in the region (1950-1980), and the second one on the values during the period

following the liberalization reforms and recovery from the debt crisis that characterized the region. The figures from the later period denote a trend towards the equalization of these ratios around values which represent substantial losses in the overall efficiency of capital. Hence, if the region is to grow at a rate of 6% per annum, it must achieve investment levels of around 28% of GDP, with a small range of variation from one country to the next. This same growth target could previously be reached with an average regional rate of 26%, but with a broader range of variation between the countries.

### Gross investment requirements for a 6% annual growth rate

Countries		Estimate	Estimate B
		A	D
Simple ave (% of GDP)	rage	26	28
Coefficient	of variation	0.24	0.11

Estimate A: Based on parameters for the period 1950-1980.

Estimate B: Based on parameters for the 1990s, excluding atypical deviations.

Source: André A. Hofman, "Capital stock in Latin America: a 1994 update", Cambridge Journal of Economics, forthcoming: Regional Employment Programme for Latin America and the Caribbean PREAICS, América Latina: Inversión y equidad, Santiago, Chile, 1990; and U. Tan Wai, "A study of ICOR in developing countries" (DM/85/12), Washington, D.C., IMF Institute, 1985.

Various studies based on the incremental capital-output ratio have confirmed that the capital-output ratio can be affected
by changes in inventories, the level of capacity utilization, the composition of investment, the gestation periods of
investment projects and other variables exogenous to the production process.

#### Box IV.2 (concl.) Capital-output ratio 1950-1992 Std. Coeff. 1950-1955- 1960- 1965- 1970- 1975-1980-1985-1990-Maxi- Mini-Countries vaof va-1954 1959 1964 1969 1974 1979 1984 1989 1994 mum mum riation riation 3.50 4.22 4.54 4.72 3.53 3.51 3.79 4.68 3.85 3.41 0.42 0.10 Argentina 3.64 3.60 Brazil 1.63 1.85 1.94 2.07 2.10 2.36 2.68 3.02 3.04 2.26 3.12 1.48 0.47 0.21 0.07 Colombia 2.91 3.02 2.90 2.69 2.46 2.45 2.62 2.74 2.72 2.72 3.09 2.40 0.20 3.24 3,43 3.47 3.41 3.40 3.61 3.37 3.42 3.18 3,40 3.71 3.06 0.13 0.04 Mexico 1,91 2.15 2.27 2.30 2.73 2.92 3.42 3.55 2.59 3.59 1.78 0.51 0.20 3.00 2.92 0.58 0.16 3.07 3.34 3.37 3.05 3.27 4.19 4.58 4.27 3.54 4.71 Venezuela 2.73 2.93 2.83 3.04 3.33 3.62 3.57 3.06 3.82 2.50 Mean 2.88 2.84 Coefficient of variation 0.29 0.23 0.21 0.20 0.20 0.22 0.21 0.19 0.30

Source: ECLAC, on the basis of data provided by André A. Hofman, "Capital stock in Latin America: a 1994 update", Cambridge Journal of Economics, forthcoming.

#### Box IV.3

#### ALTERNATIVE METHODS OF FINANCING INVESTMENT

The level and composition of savings required to ensure that the region's growth rate gradually accelerates to the point where it reaches 6% per annum in 1998 (and can then be maintained) are shown in the following table. These data refer to the regional average and are based on a model of growth limited only by the capacity of the productive system (supply of imported inputs and installed capacity). The investment requirements were derived from the growth targets and the average productivity of capital in the region discussed in box IV.2. The alternative financing methods were estimated by using the savings function in table IV.1 and the regional balance-of-payments structure.

On the assumption that productive capacity is underutilized, the investment requirements were adjusted during the first years of the simulation to reflect a more efficient use of the existing productive

system. In alternative A, the recovery influences national savings in accordance with the savings function estimated in table IV.1, yielding residual external savings requirements. In alternative B, reasonable assumptions regarding the behaviour of the balance-of-payments components limit the growth of external savings, yielding residual national savings requirements. Alternative A shows that once the region regains high growth rates, maintaining such rates will require a sharp increase in external savings beginning in 1997 (once growth based on a higher and more efficient use of productive capacity has been exhausted). Alternative B implies, however, that policies to promote saving and financial development should have led by then to a permanent change in national savings in comparison with its past behaviour, which will mean a small external savings requirement.\*

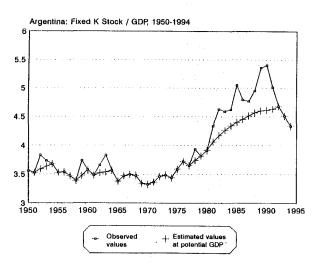
#### ALTERNATIVE METHODS OF FINANCING INVESTMENT

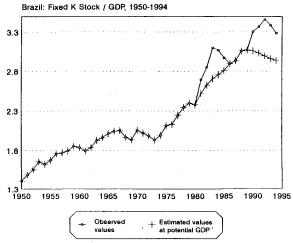
		1993	1995	1996	1997	1998	1999	2000	1995- 2000
char	TERNATIVE A (withouth nges in the national savings ction)								
А	Savings (% of GDP) National External (residual)	21.2 18.0 3.2	22.5 20.1 2.4	23.0 20.6 2.4	23.2 21.0 2.2	25.4 22.0 3.4	28.0 22.6 5.4	28.0 23.0 5.0	25.0 21.5 3.5
B C	Investment Growth	21.2	22.5	23.0	23.2	25.4	28.0	28.0	25.0
-	Real value of exports GDP Associated with allocative	3.0	10.0 5.0	11.0 5.5	11.0 5.5	12.0 6.0	12.0 6.0	12.0 6.0	11.3 5.6
ALЛ	efficiency ERNATIVE B (with changes		0.2	0.6	0.5	0.5	0.0	0.0	
in th	ne national savings function)								
Α	Savings	21.2	22.5	23.0	23.2	25.4	28.0	28.0	25.0
	National (residual) External	18.0 3.2	19.1 3.4	19.7 3.3	20.2 3.0	22.3 3.1	25.0 3.0	25.1 2.9	21.8 3.2
B	Investment	21.2	22.5	23.0	23.2	25.4	28.0	28.0	25.0
C.	Growth Real value of exports GDP	3.2	10.0 5.0	11.0 5.5	11.0 5.5	12.0 6.0	12.0 6.0	12.0 6.0	11.3 5.6
	Associated with allocative efficiency		0.2	0.6	0.5	0.5	0.0	0.0	

Source: ECLAC (assumptions and methodology).

<sup>\*</sup>In alternative B, external savings are projected solely on the basis of the external financing requirements for achieving the growth target proposed in the simulations. For this reason, in addition to the growth target, assumptions concerning export growth, the terms of trade and interest payments were used. These variables were input into the model after being weighted in accordance with their contribution to the 1993 balance of payments. Simulations using alternative weightings do not change the results significantly.

Figure IV.1 LATIN AMERICA: CAPITAL STOCK AND ITS RATIO TO GDP (Six selected countries, 1950-1994)





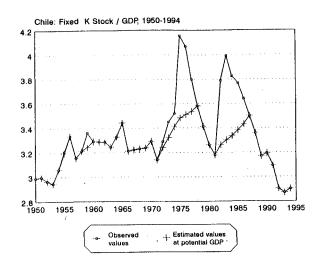
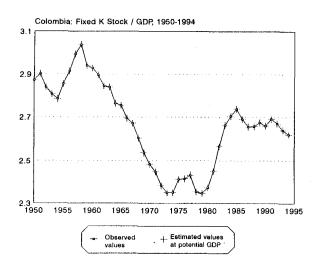
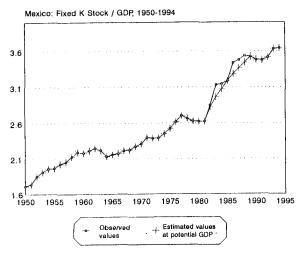
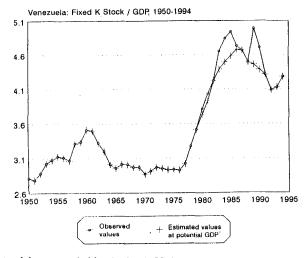


Figure IV.1 (concl.)





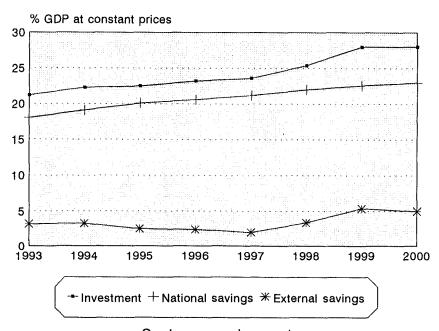


**Source**: ECLAC, on the basis of data provided by André A. Hofman, "Capital stock estimates in Latin America: a 1994 update", Cambridge Journal of Economics, forthcoming.

Figure IV.2 LATIN AMERICA: ALTERNATIVE METHODS OF FINANCING INVESTMENT

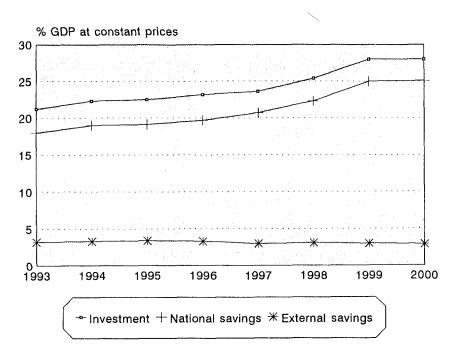
### Savings requirements

A. Without changes in the national savings function



Savings requirements

B. With changes in national savings function



Source: See box IV.3.

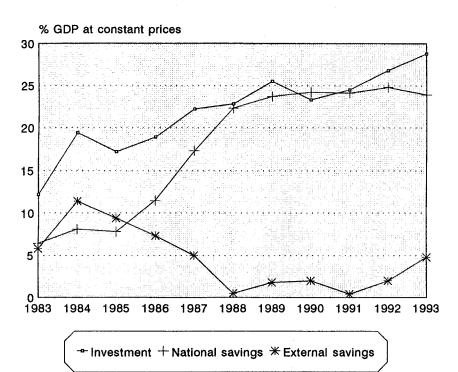


Figure IV.3 CHILE: TREND IN GROSS NATIONAL SAVINGS AND EXTERNAL SAVINGS, 1983-1993

Source: ECLAC, on the basis of official data and simulations shown in Box IV.3.

The question is whether international investors will be willing to continue investing such amounts year after year over a long period. While these amounts do not exceed the limits of the funds supplied to the developing countries each year, they will constitute a substantial proportion thereof. Moreover, a portion of these funds moves for speculative reasons; thus, their long-term continuation cannot be taken for granted. In other words, assuming that it is possible to attract such volumes of external capital, the cost of doing so will be to substantially increase the external vulnerability of growth and the chances of its disruption.

Be that as it may, it is possible to attract significant amounts of non-speculative external capital by using appropriate incentives and disincentives. Nevertheless, there are no reasons to assume that such amounts will exceed the levels already achieved in cases where sustained growth has occurred under favourable conditions for long-term investments, such as in Chile.

Given these prospects for obtaining a type of external financing which does not imply an increase in macroeconomic vulnerability, reaching the investment levels required for rapid and sustained growth raises the need for national savings to rise dramatically throughout the region, to over 25% of GDP. Such levels cannot be achieved through the growth process itself; they imply a shift in the savings function of the economy (alternative B) which would add 3% of GDP at each income level. This will be possible only if private consumption and savings

patterns change substantially and the average level of public-sector savings also rises.

Such a structural change has occurred in Chile in the final phase of rapid and sustained growth, as shown in figure IV.3, and has enabled that country to achieve a stable investment ratio of 25% of GDP over the past three years, while keeping external financing to manageable levels.

In conclusion, strengthening the process of capital accumulation in the Latin American and Caribbean countries entails a strategic choice between two options, namely, relying mainly on external capital, which dangerously increases the vulnerability of growth, or adopting policies which give a decisive boost to national savings.

#### **PART TWO**

#### **GUIDELINES FOR PUBLIC POLICY**

As Part One has shown, in most of the countries of the region, consolidating the progress already made in changing production patterns, in a context of increasing financial stability, while correcting major shortcomings, partic-ularly lags in the social arena, will require a number of conditions. To begin with, the moderate growth of recent years—an annual average of 3.6% during the period 1991-1994— will need to rise to a more dynamic rate—around 6% per year—in order to generate enough jobs to be compatible with the goal of increasing social equity. This necessity

will in return require a series of public policy goals in the areas of macroeconomic management, support to productive sectors and institutional reform.

In Part Two, therefore, some guidelines will be suggested concerning three of the aspects considered to be of strategic importance: macroeconomic policies to foster stability and growth; policies designed to enhance competitiveness and productive development; and policies to promote saving, investment and financial development.<sup>37</sup>

<sup>37</sup> In addition to those mentioned, there are other factors that contribute to high rates of growth in a context of financial stability, and the ECLAC secretariat proposes to analyze them in future studies as part of the process of reflection on the development of the countries of the region. These factors include political stability, social cohesion and the proper evolution of social processes, which make a crucial contribution to development and the consolidation of democracy; another important factor is reform of the State in order to improve the performance of its functions in qualitative terms.

## V. MACROECONOMIC MANAGEMENT FOR COMBINING STABILITY AND GROWTH

#### A. MACROECONOMIC POLICIES

Reaching the production frontier will require policies better designed to regulate aggregate demand. It is essential to synchronize the growth of demand with the expansion of production capacity (and of sustainable external financing). The region thus finds itself at a point at which greater quality demands are being placed on macroeconomic policy, a fact that was demonstrated in a considerable number of countries in 1995.

Macroeconomic balance is a crucial precondition for more dynamic growth achieved with greater social equity. Hence the importance of the way in which macroeconomic equilibria are attained and the degree to which they are sustainable and integrated.

From the standpoint of production, an efficient set of macroeconomic policies should help to: i) increase utilization of production capacity, labour and capital in a sustainable manner; ii) encourage capital formation; and iii) increase productivity by fostering improvements in the factor quality and greater efficiency in factor allocation. As Part One of this document has shown, in many countries macroeconomic policy has been deficient in these three respects in recent years.

Attaining macroeconomic policy objectives depends on harmonizing levels of aggregate supply and demand and adjusting the ratio between their tradable

and non-tradable components –two variables closely associated with relative macroeconomic prices, such as interest and exchange rates, and with the predictability of effective demand. These variables also affect the quality of appraisal and the expost rate of return on investment projects.

The passivity of macroeconomic policy in the face of shocks both external -changes in international interest rates, terms of trade or availability of capital or internal -fluctuations in construction activity or in the consumption of durable goods- results in intermittent ("stop and go") progress. The inevitable consequence is a decline in average net utilization of production capacity, followed, after a certain time lag, by a drop in employment in response to lowered activity levels. It is necessary, then, to strengthen capacity for designing and applying macroeconomic policy so that the economy can move closer to the production frontier while experiencing sustainable demand and price stability.

The extent of the mismatch between effective demand and production capacity has important immediate, or static, effects and longer-term, or dynamic, effects. The first point to note is that greater utilization of installed capacity increases the effective productivity of resources. This makes it possible to increase return on capital or remuneration to labour, or both. In dynamic terms, the higher utilization rate

and resulting increase in effective productivity tend to stimulate investment in new production capacity. In order for the supply of investment to expand, investors must perceive a real improvement in the short term and believe that it is sustainable in the future. The more confident the expectations of economic agents with regard to the permanence of the public policies that help keep effective demand in line with the production frontier, the more substantial the dynamic effect will be.

One of the fundamental macroeconomic equilibria is that related to utilization of production capacity. In economies with price rigidity, stagnation and incomplete factor markets, shocks, whether positive or negative, cause adjustment problems. One of the results of these situations is that the convergence between aggregate supply and demand is reduced, and as a result the gap between actual and potential utilization of production capacity widens. They are also detrimental to social equity, because lower-income households with less human capital and small and mediumsized firms are more limited in their capacity to react to constant change and instability. They are slower to take advantage of economic upturns and have less capacity to adapt to recession conditions. Thus, instability is a major source of inequity and favours speculation over production.

The approach taken in antiinflationary and adjustment programmes can significantly affect this macroeconomic equilibrium. Anti-inflationary and adjustment programmes adopted in response to external shocks influence the macroeconomic framework and the level of utilization of available resources. The latter factor, in turn, affects the rate of return and the formation of new production capacity.

Cyclical markets tend to experience less favourable trends in the abovementioned variables compared with more stable markets. In general, traditional anti-inflationary and adjustment approaches tend to reinforce procyclical

behaviours. In essence, the traditional approach employs just one or a few variables to confront each problem and does so in a non-selective, all-embracing, uniform fashion without allowing for country differences or the specific economic situation at the time.

Conventional price stabilization policies usually depend either on a deliberate restriction of aggregate demand (in a policy of the closedeconomy monetarist variety) or on a firmly fixed exchange rate combined with passive monetary policy (tied to the availability of international reserves), characteristic of a so-called open-economy monetarist or currency-board approach. The aim of the latter approach is to allow the evolution of domestic aggregate demand and the external price of internationally tradable products, individually or collectively, to determine the behaviour of domestic price levels. In practice, this approach works, but with significant lags and at the cost of forfeiting active exchange-rate policy as a tool for adjusting relative prices.

In cases of prolonged external recessionary contingencies -such as the debt crisis- the automatic adjustment approach has typically had the effect of magnifying the domestic impact of the external recession. In other words, in addition to the decline in national income originating outside the country in the form of deterioration in the terms of trade and restriction of access to real and financial markets, an automatic adjustment may cause a sharp drop in domestic production. It cannot be denied that such an adjustment is very effective in offsetting the external disequilibrium, but it has serious shortcomings from a macroeconomic standpoint; it reduces utilization of production capacity and discourages new capital formation.

To avoid the destructive multiplier effect of automatic adjustment, what are needed are consistent and properly designed monetary, credit, fiscal, trade and income or wage policies, combined with policies specifically aimed at productive development, and each of

these policies needs to be shaded in emphasis and intensity to match the situation in which they are applied. With respect to productive development policies, the key is to coordinate the development programme with short-term policies in order to promote changes in patterns of expenditure and production that will make it possible to maintain a high level of utilization of local production capacity and to encourage, rather than to undermine, capital formation.

It is possible to achieve these ends by applying public policies that directly or indirectly regulate the level of aggregate demand and influence the composition of expenditure and production through selective instruments designed to reallocate resources and to develop incomplete markets, or create them where they do not exist (ECLAC, 1995a, chapters VII and VIII). The combination of policies employed may help to remove obstacles to sustainable development, but may also introduce new distortions or constraints. The latter effect is not unusual, particularly when priority is given to price stability alone, or when it is assumed that it is the chief prerequisite for spontaneous economic growth. Such approaches may result in stabilization accompanied by stagnation, or of short duration, soon ending in a return to instability.

If stabilization programmes are to be lasting in effect and contribute to development, it is important to bear in mind the hysteresis of the adjustment process: the prior evolution of basic components of growth (investment, training, technological innovation), the way they have been handled and their impact on the capacity and opportunities of the various social sectors. Stabilization programmes may leave progressive or regressive traces, depending on their nature.

Programmes that rely on a single variable to initiate the process of stabilization tend to have procyclical effects that threaten the sustainability of the programme or the growth of production capacity. The two most common single-variable anchors are

fixing the exchange rate and controlling the money stock as an isolated measure.

Depending exclusively or excessively on a single monetary variable also typically cause a substantial rise in real interest rates. This situation favours the financial dimension at the expense of the productive and tends to keep the economy at a distance from the production frontier.

In order to achieve lasting stability along with close-to-full utilization of production capacity, a number of different variables or prices need to be coordinated to prevent some of the important variables from lagging behind or moving too far ahead of the others. One instrument that can be useful in achieving more sustainable equilibria with the greater effective productivity associated with approximation to the production frontier are initiatives at social compromise between the main economic agents, such as the economic solidarity pacts concluded in Mexico or the agreements on minimum wage adjustments and tax reforms reached in Chile.

In a passive economic policy scenario, a favourable external change results in an increase in income and hence in domestic spending. Economic activity may respond to the new demand to the extent that there is installed capacity lying idle. Once the production frontier has been reached, however, if the influx persists it will generate demand pressures, causing domestic prices to rise and the external deficit to increase. Since many changes in external prices are temporary, no sooner has the economy adapted to them than they disappear, necessitating traumatic adjustments. Experiences have led Colombia and Chile to set up stabilization funds, the former for coffee and the latter for copper, to sterilize price increases deemed to be temporary, releasing the funds later when the price drops. The aim is to dampen the potential destabilizing effect on aggregate demand of temporary shifts in the terms of trade.

Expansions and contractions in capital flows are another type of external shock. Private flows are particularly volatile, apart from foreign direct investment. The big influx of external capital, much of it short-term, received by many Latin American countries in recent years concealed the real weaknesses in their economies: low levels of productive investment and savings and growing external deficits.

As experience has shown in those countries that successfully weathered the recent financial crisis that originated in Mexico at the end of 1994, a situation of this kind calls for systematic efforts to ensure, first, that the flow of funds is kept to a volume that can be absorbed efficiently and, second, that the flow consists of resources related to productive investment and that an appropriate proportion of the investment is directed towards the production of tradable goods. To achieve these aims requires active exchange rate policies, a strict regime of prudential supervision of the financial system and, at times, disincentives to capital movements, particularly short-term capital (ECLAC, 1995a, chapters IX to XIII).

It is necessary to make sure that incoming funds are directed towards productive investment; too much capital flowing into portfolio investment and consumption of imported goods ultimately causes unstable disequilibrium situations ("bubbles"). If imports persistently grow faster than exports it is cause for concern and for timely corrective measures, to prevent an unsustainable accumulation of debt and other liabilities.

Indiscriminate opening of the capital account in a situation of macroeconomic and exchange rate instability can be detrimental to productive development and social equity. In recent years, Chile and Colombia have shown that it is possible to establish effective and efficient controls. The adoption of appropriate exchange rate policies (to moderate short-term fluctuations) and monetary policies (to permit stabilizing sterilization operations) appears to be an essential

complement to efficient regulation of capital movements and stabilizing management of aggregate demand. Some countries of the region have made interesting advances in this direction (ECLAC, 1995, chapter XI).

Fiscal policy also has more to contribute to the regulation of aggregate demand, particularly through the introduction of compensatory assessments (Zahler, 1995). Compensatory levies would be imposed during periods of expansion or high export prices, in order to convert windfalls into public savings, thereby sterilizing their impact on disposable income, and would be reduced in periods of recession in order to stimulate the private sector; the public sector would then be able to draw upon the funds accumulated during the expansion phase.

### B. TECHNICAL PROGRESS, EMPLOYMENT AND GROWTH

Only rapid and sustained growth can create enough quality jobs not only to redress the post-war balance between the growth of the workforce and the supply of jobs in the formal sector of the economy (or jobs of relatively high productivity), but also to reduce current levels of unemployment and underemployment, with the resulting beneficial effects in terms of social equity and poverty alleviation.<sup>38</sup>

On the other hand, as will be shown further on, in the present context of increasing globalization, conditions are ripe for the countries of Latin America and the Caribbean to make major technological leaps that will result in faster gains in productivity and competitiveness; for example: i) many productive activities are still far removed from the international technology frontier, despite the availability of best practices; ii) there are abundant natural resources that can be

Demographic projections for the immediate future do not suggest that the need for continuous growth to absorb the potential workforce will diminish soon; the working-age population is still increasing more rapidly than the total population, while labour force participation rates are rising significantly (ECLAC/CELADE, 1995).

exploited with advanced technologies and entrepreneurial initiative, permitting an advance to higher value-added rungs in the transnational marketing chains; iii) there is industrial capacity and technology developed during the preceding stage of growth and updated in the recent round of modernization; and iv) the workforce is relatively well-educated and skilled.

The recent resurgence of investment has involved a more intensive use of capital and labour-saving technical changes, which have accelerated the increase in labour productivity. In the region's large and medium-sized industrial enterprises, productivity has increased rapidly in recent years, while the magnitude of productive employment has been declining. This restructuring has probably been more intense in industry than in the formal segments of other sectors,<sup>39</sup> but the important point is that the productivity of the rest of the workforce has improved slowly and that new jobs of higher-than-average productivity are scarce.

In order for the potential and advantages the region possesses to be fully realized in terms of technical progress and for the process to be sustainable over the long-term, a major portion of the productive system must be involved. The same holds for reducing the proportion of the workforce that is underutilized.

To reduce this underutilization gradually and to offset the growing tendency towards structural heterogeneity by increasing productivity in lagging segments will require enhancing the dynamism of the modern sector even further, while improving the capital/worker ratio in the workforce employed in the informal sector, agriculture and small enterprises. Achieving these two aims will entail a further intensification of the investment effort.

An improvement in systemic productivity with the above characteristics presupposes: i) strengthening the momentum modern activities can provide by multiplying their linkages to the rest of the productive system; ii) disseminating technical progress to the point that lowproductivity activities and enterprises can begin to catch up by modernizing at a faster pace than the leaders; iii) making investments in human capital that are commensurate in quantity, quality and content with the demands of the modernization process; iv) making capital investments that are proportional to the modernization effort and incorporate greater knowledge content per unit of capital.

The process of bringing modern activities closer to the international technology frontier, and lagging activities closer to the more modern, of course implies a fairly widespread increase in international competitiveness, which would in turn further integration into the global economy. However, the process also tends to make both segments of productive activity more capital-intensive (and technology-intensive).

In order for this labour-saving process to provide enough jobs to absorb increases in the workforce and to reduce the current underutilization of labour, the rates of growth attained must be even higher than indicated earlier, and rates of saving and investment must also rise.

The need for growth rates that might appear dizzying compared with the region's historical record and the recent performance of most of the countries, and furthermore for rates of accumulation more common in other latitudes, makes the dilemma of external and national saving even more acute. Even should it be possible to increase rates of both, particularly in a context of accelerated growth, the increase in external vulnerability will make it harder to maintain macroeconomic stability;

<sup>39</sup> Modernization accompanied by significant job creation has most frequently been observed in commercial agriculture associated with agroindustry, large-scale mining and maquiladora industries.

moreover, raising rates of domestic saving will require profound institutional changes.

#### C. EXPORT-LED GROWTH

Accelerating growth requires not only an enormous effort of accumulation on the part of society, but also more dynamic linkages with the world economy. In open economies, increasing output by some 6% per year necessitates a steady expansion of exports at rates considerably higher than those recorded in the region.<sup>40</sup>

In principle, this is possible in a globalized world economy free of constraints, but it does not appear to be achievable merely by strengthening the region's current position in its traditional export markets. To illustrate how much it would be necessary to expand external markets, consider that export growth of 12% annually would mean doubling the export offering within six years.

Possibly, some of the export markets for the region's raw materials and commodities offer such possibilities of expansion, particularly in view of the potential demand in China, South-east Asia or the European economies in transition. However, historical experience suggests caution in appraising the

possibilities of achieving strong export growth on the basis of the traditional export categories. First of all, between 1985 and 1994 (a period of expanding world trade) the global volume of trade in such products grew at rates of 3.2% to 4.4% per annum, depending on the category (WTO, 1995); moreover, the real prices of the products have tended to decline, and their fluctuations cause many problems in the short run.

Therefore, a necessary condition for rapid, export-led growth is that exports must quickly diversify into more dynamic markets and products and in general must incorporate higher added-value and greater technological content than the traditional products. This process, of course, entails diversifying supply, and not only exporting increasingly higher percentages of total output, but also increasing the linkages of all productive sectors with the international economy. Given the pattern of development in the countries of the region, a change of this scope and nature is only possible on the basis of steady advances in international competitiveness, supported by broad dissemination of technical progress throughout the productive system and widespread enhancement of the training and skills of the workforce.

<sup>40</sup> The volume of exports from the region grew at a rate of 6.4% per annum between 1980 and 1995 (8.5% in the most recent period of 1990-1995); the countries that did best during those periods were Chile (8.5% and 12.2%) and Paraguay (10% and 12%).

#### VI. POLICIES FOR STRENGTHENING COMPETITIVENESS AND PRODUCTIVE DEVELOPMENT

#### A. CRITERIA FOR PUBLIC-SECTOR INTERVENTION IN THE PRODUCTION PROCESS

A review of the productive restructuring process now under way reveals some particularly striking facts which can offer criteria for the design of productive development policies.

First, there is a marked productivity gap between the Latin American and Caribbean countries and industrialized countries (3 and 5 to 1 in terms of labour productivity and 2 and 3 to 1 in terms of joint factor productivity), which is evident in most sectors and business firms. This is not only an extremely widespread phenomenon, but one that has deepened in recent years. The region's lags are apparent with regard to both "hard" technologies (machinery, equipment and production methods) and "soft" ones (inefficient organization of production, confrontational industrial relations, insufficient attention to quality and to consumers).

Second (and paradoxically), this gap has a positive side, since a decision to take specific measures to eliminate the technology lags would pave the way for initiating a rapid growth process. If full advantage were taken of internationally available technologies, it would be possible to skip stages, as the late-industrializing countries have done with excellent results.

Third, in the past two or three years, labour productivity, particularly in the manufacturing sector, has improved rapidly. In several countries, however, this improvement has been due in part to the business cycle, i.e., to a recovery phase following a prolonged period of slow growth or a dramatic reduction in the inflation rate; in the longer term, therefore, the increases in productivity would not reflect this cyclical component.

Fourth, even in the countries that have stronger linkages with world markets, the export structure continues to depend to a notable extent on variations in international prices, which are reflected in marked fluctuations in the terms of trade, so that the annual trade figure frequently varies by between 3% and 5% of GDP over periods of as little as three years.

Fifth, the existence of segmented or incomplete markets reduces the possibilities of increasing linkages within productive systems and prevents demand and technical progress from radiating outward from the modern, leading sectors to the rest of the economy. This phenomenon undercuts, in particular, the capacity of the export sector to generate momentum.

Lastly, learning capacity is the most important determinant of whether it is possible to skip stages in productive development. While this capacity varies considerably from one country to the next and among different regions within each country, major progress has been made, and a wide range of measures can be called upon to strengthen this capacity.

#### B. THE REGIONAL DEBATE ON PRODUCTIVE DEVELOPMENT

The processes of trade liberalization have made it possible to improve the utilization of natural resources, in which the region has an exceptional comparative advantage. Nevertheless, the old problems of low relative productivity and insufficient competitiveness and innovative drive remain to be solved. Today these problems are compounded by new challenges arising from the necessity of improving linkages with the global economy and promoting competitiveness and retooling.<sup>41</sup>

Despite the short time that has elapsed since the economic reforms were initiated. these reforms, and the mixed results obtained, have raised a number of questions in the regional debate which ECLAC wishes to address, in collaboration with the governments of the region. These questions include the following: i) Should the current pattern of specialization be seen as a step towards a form of industrialization which makes more intensive use of technology and human capital, or as the final stage in a process whose impact is limited to the primary sectors? ii) What are the long-term effects of this specialization pattern on growth, employment and income distribution? iii) In view of the tendencies shown by international trade, does the current specialization pattern reflect an optimum assignment of resources? If not, what alternative forms of specialization exist, and what policies should be implemented to take advantage of them?

These are, without doubt, important questions, which are part of a still nascent debate, centred on the nature and scope of policies for promoting competitiveness in the context of open economies. There are many different views on this issue in the

region, ranging from those which advocate the elimination of industrial policies, with the exception of policies that support systemic competitiveness, to those which favour the adoption of sectoral policies as a specific complement to horizontal ones.

In this connection, it is worth noting the marked reduction in the range of instruments available for promoting productive development. There are fewer traditional instruments, such as protection, fiscal incentives and government procurement, and no others have been developed that are suited to the new conditions of open economies, strengthened trade regimes and multilateral agreements within the framework of the World Trade Organization.

The policies for promoting competitiveness are conceived as having a horizontal scope, which contributes to the completion of factor markets and benefits various sectors of activity by fostering the emergence of new markets and institutional networks, thus facilitating the development of the factors of production.

In addition, these policies are presumed to be neutral with respect to the type of activity or business firm that benefits from them, so that the policy failures or rent creations formerly associated with the selective nature of some industrialization policies can be avoided.

A review of such policies reveals weaknesses in the treatment of sectoral issues and retooling. In particular, there is evidence of a certain reluctance to assimilate the experience of some Asian countries, which have supported innovative sectors and sought closer coordination between the public and private sectors; in addition, insufficient importance has been given to measures to strengthen the technological base and human resources.

Moreover, if such policies are to be effective, they must not only be neutral,

<sup>41</sup> Case studies of retooling are analysed in ECLAC (1995a), chapter VIII, paragraph 4.

but must also aim at the development of specific technological and human resources that are known to be lacking or inadequate in the light of a long-term strategy to develop systemic competitiveness.

Nevertheless, there is growing agreement that macroeconomic stability and an open, competitive and deregulated economy are necessary but not sufficient conditions for an independent process of economic growth and changing production patterns. Countries recognize both the importance of supporting this process through appropriate macroeconomic incentives and regulatory frameworks and the need to design and enhance the efficiency of financial and productive development policies. In the absence of such policies, it would seem difficult to achieve the increases in productivity essential for improving linkages with the global economy and attaining high growth rates.

An example of such agreement can be seen in the Andean region, which has adopted sectoral policies designed to create "value chains" in accordance with the methodology proposed by Porter (1990). These policies are supported by governments and the business community, and they reflect the interest aroused by strategies for developing competitiveness and comparative advantages in the sphere of knowledge and human capital.42 An increased awareness of the need to adopt new public policy measures coexists with a greater understanding of the real dangers of intervention and of the high price paid by the region in the past for excessive protectionism and a lack of macroeconomic discipline. The new dimensions of productive development policies also imply a serious effort to increase efficiency in the design and management of public-sector programmes (see box VI.1).

### C. DETERMINANTS OF SYSTEMIC COMPETITIVENESS

It has already been shown that emerging competitiveness now depends not so much on advantages in terms of wage costs or natural resources as on the quality of human resources and the technological capacity and competitive strategy of enterprises. Accordingly, the goal of productive development policies should be to increase joint factor productivity, improve the quality of goods and services and promote the creation and dissemination of technology.

Moreover, the strategies and behaviour of business sectors depend to a large extent on the system of incentives and the regulatory framework in which they have to operate, and on the level of maturity reached by the system. The recent debates on productive development in the region, while noting importance of maintaining macroeconomic stability and incentives, have drawn attention to the need for public measures to stimulate modernization of the productive system and technological change. In line with this way of thinking, the best road to progress in changing production patterns appears to involve a combination of macro-, mesoand microeconomic measures designed to achieve the following objectives:

- i) Protecting macroeconomic stability and incentives, so as to encourage, in particular, productive investment in the tradable goods sector, especially in activities linked to exports;
- ii) Increasing domestic savings and productivity, and promoting the deepening and greater flexibility of markets and institutions, as part of a dynamic process of saving and investment;
- iii) Promoting development and strengthening national systems of innovation by stimulating cooperation, the establishment of networks and

<sup>42</sup> The Declaration of 11 August 1995 of the Ministers of Industry of the Andean Countries has a similar thrust, and also endorses the main features of the ECLAC proposal for changing production patterns with social equity.

#### Box VI.1

#### NEW POLICIES FOR PROMOTING COMPETITIVENESS AND PRODUCTIVE DEVELOPMENT

The main goal of the new productive development policies is to strengthen the factors of production by stimulating the incorporation of technology and investment in human resources, while giving priority to the variables of productivity, quality and internationalization. This goal implies the development of as yet incomplete markets (for technology, human capital, long-term capital, foreign exchange) and overcoming such shortcomings as underinvestment in export activities (new products, new markets) and insufficient support for pioneer export firms and small- and medium-scale enterprises. It also includes the regulation of markets of crucial importance for competitiveness, such as public telecommunications services, energy, the financial system and other areas of the infrastructure.

A feature of emerging competitiveness is that new room has been opened up for private investment in the road, port, airport and sanitation infrastructure, with efficient pricing mechanisms and economic management approaches that safeguard service coverage and quality and pass maintenance and repair costs on to users.

In order to support the internationalization of production, it is necessary for traditional export promotion

policies to be accompanied by measures to stimulate investment abroad, alliances with external partners, broader national participation in marketing chains and a greater private-sector commitment to trade, quality and brand promotion strategies.

Productive development, meanwhile, must be based on horizontal mechanisms designed to improve linkages among private agents and between the private and public sectors, and to reduce the risks of new investment by providing more accurate and timely information and flexible access to the available instruments.

With regard to technical requirements, such policies must: i) be based on market institutions; ii) place emphasis on efficiency, dynamism and competitiveness; iii) make use of incentives which are limited in time, decreasing, provide for their own eventual elimination and are linked to precise export goals; iv) have limited objectives and concentrate the critical mass of public sector measures on programmes which will have a decisive impact and are in keeping with that sector's technical and administrative capacity; v) promote decentralization of the administration and follow-up of incentives; and vi) be concentrated selectively on pioneering exports or those with a high content of knowledge.

Source: ECLAC, Latin America and the Caribbean policies to improve linkages with the global economy (L.C./G.1800/Rev. 1-P), Santiago, Chile, April 1995. United Nations publication, Sales No. E.95.II.G.6; O. Rosales, "La segunda fase exportadora en Chile", Comercio exterior, vol. 43, No. 9, Mexico City, September 1993; and "Industrial policy and promotion of competitiveness", CEPAL Review, No. 53 (L.C./G.1832-P), Santiago, Chile, August 1994.

alliances among the various agents of the system, and the adoption of innovative financing mechanisms linked to business firms, universities, technology centres, technical and vocational schools, development banks and other agents;

- iv) Designing incentives for activities to develop skilled human resources and for training them in new areas;
- v) Strengthening business associations so as to facilitate their access to the creation, importing, adaptation and dissemination of technologies, and

offering new opportunities to small- and medium-scale enterprises;

vi) Developing a transport and telecommunications infrastructure which contributes to the reordering of the productive system and to the creation of its internal linkages;

vii) Unifying the criteria for productive development policies, particularly as regards their links to policies for promoting exports, training, productive development and technological change. This will require, inter alia, adapting the promotional instruments to the multilateral framework derived from the Uruguay Round agreements;

viii) Establishing and consolidating the legal frameworks and regulatory bodies necessary for promoting competitiveness and regulating markets in which there is no competition.

# D. COMPETITIVENESS AND DEVELOPMENT OF SYSTEMS OF INNOVATION

In previous documents, ECLAC has analysed important aspects of national systems of innovation, such as the dissemination of technology (ECLAC, 1995a, chap. VIII), the strengthening of the technological infrastructure (ECLAC, 1992b, chap. V) and the financing of research and development activities (ECLAC, 1990, chap. V). In addition, ECLAC and UNESCO jointly issued a document entirely devoted to the challenges of educating and training human resources, in which such issues as quality, social equity, relevance, financing and institutional structures were examined, and the regional situation and specific examples drawn from Asia and the industrialized world were analysed in depth (ECLAC, 1992a).

In the following section, only the basic characteristics of the system of innovation will be examined, with particular attention to the institutional adaptation of technology centres, quality control and training.

### 1. Strengthening of national systems of innovation

The term "system of innovation" means all the agents, institutions and behavioural norms of a society which determine the speed with which technological know-how is imported, generated, adapted and disseminated to all goods and service sectors. The system also includes activities to train the skilled human resources needed for the performance of these tasks, and the funding for such activities.

Among the factors which influence the functioning of a society's system of innovation, apartfrom its level of scientific and technological maturity, is the system of macroeconomic incentives and the regulatory framework in which economic agents operate. To a large extent, the operation of this system also reflects the features of the business, juridical and regulatory "culture", consisting of the organizational models adopted by business firms and the mutual links which they create in establishing contracts, both with the public sector and with research and development centres.

Systems of innovation operate at the national level and at the sectoral and regional levels. One can, for example, talk about the system of innovation that serves as a basis for the Swedish or Finnish forest industry, the Chilean or Brazilian cellulose and paper industry and the productive system of a given region. There are very strong systems of innovation with clearly defined aims of promoting systemic competitiveness, and very fragmented and weak systems, lacking in depth and goals.

There is clear evidence of an interdependence between competitiveness and the level of consistency and depth of the system of innovation of a country or a specific industrial activity. This question has been dealt with in numerous works which show how the systemic interdependence between the system of incentives, the development of support industries, domestic demand, the availability of factors of production

and the structure and behaviour of markets influences the international competitiveness of a given industry (Porter, 1990).

Systemic interdependence has much in common with the concept of national or sectoral systems of innovation used in this chapter, as figure VI.1 shows. The model of systemic interdependence which it describes shows "inflows" and "outflows" linking business firms, development banks, research and development centres, and other agents, both domestic and foreign. The systemic links constitute, or can eventually constitute, markets with varying degrees of development, adaptation and consolidation.

The level of maturity of such markets depends on the scientific and technological base of society and on such variables as the development of capital markets and the extent to which they contribute to the financing of innovative activities involving risk that is not easily assessable. In countries like those of Latin America and the Caribbean, where much of the new technology is incorporated into imported capital goods or comes under international licences, there is a market in external technology (see the arrow connecting "Technology from other countries" and "Firms") which serves as a link between the industries that constitute the national system of innovation and their external counterparts (which can grant licences), engineering and consultancy firms in third countries (which can supply technology packages or even turnkey plants), financial agents (which provide letters of credit so that firms producing capital goods in one country can sell them in other countries) and educational institutions and research and development centres in the industrialized world.

The other arrows shown in figure VI.1 refer to other "markets" of the system of innovation -e.g., those that link local research and development centres to industries and agricultural

enterprises, or those that provide a liaison between institutions for training skilled human resources and firms producing goods and services.

In the countries of the region, many of these markets simply do not exist, or are still in their infancy. The goal of productive development policies should therefore be to create and develop such markets by establishing links of interdependence between suppliers and users of technology, providing financial resources for a process of innovation in which risks are shared by the public and private sectors, and training skilled human resources for activities involving applied research and adaptation of technologies.

One particularly important form of public-sector intervention to achieve these goals in countries like those of Latin America and the Caribbean, which have a rich natural resource base, is the promotion of activities or networks that tend to cluster around a key resource. Such networks or "value chains" incorporate large amounts of added value derived from economies of agglomeration, due to backward linkages with activities supplying inputs and to forward linkages with activities having a similar technology base or management structure. There are a number of examples of this type of strategy in developed countries (centred on cellulose and paper in Finland, agroindustry in Denmark, telecommunications in France, energy products in Holland, mining in Canada, the industrial districts in the north of Italy), as well as some successful examples in the region (e.g., the footwear industry in Brazil).

Increases in productivity are linked to innovation, the promotion of technology, and the improvement of quality. Giving greater flexibility to working hours, contracts and activities, for example, may be a key aspect of productivity, especially as regards the elimination of redundant tasks, processes that are maintained merely

Training of human resources in Skilled human Exports of other countries technology resources employed by firms Educational institutions Skilled human resources migrating to other Skilled human countries resources with training functions Technology from other countries (patents, licenses, capital goods) **Firms** Skilled human resources employed Technology by centres transferred by centres to firms Public funds for innovation Development contract **Public** Public-sector financial system technology (Development banks) centres Technology External funds for which local centres receive development and Technological solutions from other which local centres countries dissemination transfer to other of technology countries

Figure VI-1
THE NATIONAL SYSTEM OF INNOVATION

through inertia, or laws and regulations that have not been adapted to new conditions.<sup>43</sup> Labour laws, for example, could be amended in order to provide more possibilities for innovation and consensus-building in firms, which would, in turn, contribute to increasing productivity (see box VI.2). An important suggestion in this respect is that of the introduction of profit-sharing (ECLAC, 1992b).

Many countries of the region are engaged in experiments which aim in this direction. In Colombia, a policy proposal has been made that would promote innovation, competitiveness and technological development in the productive sector by strengthening information networks, improving quality and protecting intellectual property. In addition, consideration is being given to the establishment of sectoral and regional centres for productive and technological development, with funding provided by the public and private sectors, which would serve as the hub of the innovation network.

Countries must have a minimum scientific and technological infrastructure with a high degree of internal cohesion and close links to the productive system. It is very important, therefore, that support be provided for the establishment of research and development centres engaged in, *inter alia*, the dissemination of technology to various sectors and the promotion of quality, design and management techniques.

The provision of public funds for the basic research activities of such centres and of public and private funds for applied research, the self-financing of industrial extension activities by large firms and the cofinancing of such activities by small- and medium-scale enterprises, all constitute important steps towards the establishment of a national system of

innovation. It is also necessary to adopt public policies aimed at strengthening the links between technological supply and demand, encouraging faster dissemination of technological and trade information and contributing to the emergence of regional (subnational) technology markets and skilled labour markets. The deepening of capital markets is another factor that can facilitate investment in technology, through the establishment of guarantee funds for insuring investments involving a high technological risk and a system of risk capital to support such investments, as well as the promotion of greater private bank and multilateral participation in this area.

Some countries of the region have begun to implement policies that offer special incentives to exports of engineering services and design-intensive manufactures. In addition, steps have been taken to provide subsidies for smalland medium-scale enterprises to pay part of the cost of technology consultancy services to modernize management practices and industrial processes, standardization and quality control systems, preparation of investment projects, presentation of projects to private banks and business travel. Governments have also begun to grant more post-graduate fellowships, as a function of national technological priorities (Rosales, 1995).

### 2. International norms and standards

The growing demands for quality in international markets are causing the countries of the region to assign increasing importance to this aspect and to incorporate it into their production and export development strategies. Incentives for higher quality can also favour

<sup>43</sup> Although the economies of the region have moved away from models based on a closed economy to strategies involving an open economy and a closer involvement in the international economy, there are still substantial numbers of laws and regulations based on a closed economy which hinder the innovative efforts of the public and private sectors. The same is true of the processes of deregulation and privatization of some public services, which have not been accompanied by functional changes in the legislation.

#### Box VI.2

#### INNOVATION AND ENTERPRISE

The various different views on technological change and labour relations all agree that the main obstacle to innovation is the existence of non-cooperative relations within a firm. Likewise, they stress the need for a skilled, flexible and motivated labour force, as an essential input for technological innovation. They also point out that most technological change is incremental, that is to say, marginal and workaday, and is incubated in the interaction of the productive process.

The traditional technological innovation

The traditional technological innovation model was conceived as a linear, predictable process beginning with research, continuing with development, design and production, and ending with marketing, sales and service. This model incorporated the experience of large-scale industries, but not the synergy of cumulative innovations which is the backbone of current technological

change (especially in semiconductors, computers and motor vehicles).

Now, however, technological innovation is conceived as a systemic process of discovery, development, improvement, adoption and marketing of new processes, products, procedures and organizational structures. It is also seen as a process that can be stimulated by strengthening the links and feedback mechanisms within firms, among them, and among technology centres and universities.

It is now generally considered that a low level of cooperation among individuals and organizations acts as an obstacle to technological innovation and improved industrial performance.

Furthermore, cooperation between competitors is part of the new rules and is a vital element in innovative performance.

Source: O. Rosales, "Industrial policy and promotion of competitiveness", CEPAL Review, No. 53 (LC/G 1832-P), Santiago, Chile, August 1994; T. Jorde and D. Teece, "Innovation and cooperation: Implication for competition and antitrust", The Journal of Economic Perspectives, vol. 4, No. 3, Nashville, American Economic Association, 1990; M. Dertouzos et al., Made in America: Regaining the Productive Edge, Cambridge, Massachusetts, MIT Press, 1989.

increases in productivity and gradual adaptation to stricter international standards.

Many countries are showing interest in design improvement programmes such as those which have been incorporated into industrial policy in Brazil.<sup>44</sup> In addition, the process of trade liberalization has highlighted consumer demands with regard to product design and quality. The establishment of quality systems in firms makes it possible to modernize management techniques and, especially in small- and medium-scale

enterprises, to rationalize costs and take fuller advantage of the available incentives, which are often not used because of ignorance or shortcomings in business management.

The existence of private enterprises specializing in quality certification favours competition within a given sector and allows the public sector to concentrate on regulation and supervision. Greater competition in this market gives the public sector a wide choice when it is necessary to designate reference laboratories.

<sup>44</sup> These include general subprogrammes (raising, promoting and disseminating awareness; information, standardization and legal protection; human resources training; integration and strengthening of design infrastructure; coordination and development) and specific subprogrammes (industrial, commercial and service segments; federal, regional, state and municipal programmes; and programmes geared to micro-enterprises and handicrafts).

The international distribution channels handle goods and services for demanding consumers. The creation of more demanding domestic consumers should therefore form part of quality promotion policies, which should seek to do away with the often very marked differences between export quality and the level of quality considered sufficient for the domestic market. Legislation on the quality of goods and services and on consumer protection is therefore an integral part of the promotion of quality and competitiveness.

## 3. Institutional changes in public technology development centres

A major proportion of regional technology costs resulted from the assignment of resources to public-sector development centres which to a large extent are not subject to periodic performance evaluations. This situation has led to proposals for an important shift in technology policy that would link the funding of these centres to results measurable in terms of performance indicators. Such a move is likely to lead to increased participation by the private sector in the management and financing of such centres, which would give them greater independence and flexibility as regards the management of funds (Rosales, 1994). Nevertheless, privatization in and of itself is not sufficient to ensure a more effective allocation of resources; therefore, it is essential to define areas of activity and assign tasks to participating agents in accordance with the private and social profit to be derived from the activities. In the agricultural sector, nothing has been gained by privatizing the experience stations of technology centres, only to be forced to reverse the measures once the privatization of a sector subject to so many externalities turns out to be a mistake. Nor, for similar reasons, does it seem prudent to privatize bodies which exercise regulatory functions closely linked to the countries' integration into major external markets, such as the animal health, plant health and quality control authorities.

Likewise, a cautious approach should be taken to the use of market-based criteria in evaluating the performance of technology centres; such criteria should be weighed against the usefulness and nature of the research activities in question. For example, a number of countries have derived major economic and social benefits from the basic research activities carried out in the forestry, mining and fisheries sectors during the pre-competitive stage. In order for this result to be achieved, however, it was necessary for these activities to be publicly subsidized for a long time; without such subsidies, it would not have been possible to carry them out, and private exporters would not have had the benefit of their essential contribution to the development of competitiveness.

Accordingly, the move from the current system of more or less guaranteed financing of the public technology supply to a system where there is more competition for funds on the basis of projects that can be objectively evaluated -a process that reflects the various stages of technological research (basic, pre-competitive and competitive)—should lead to greater social profitability of these resources, greater dynamism of the productive base, and more contact between the institutions and the latter. Giving priority in the evaluation process to projects funded by business firms can contribute to the establishment of such contact with the firms and with their specific productive and technological requirements.

In view of the features of greater competitiveness outlined above, support should be given to, *inter alia*, the dissemination of innovations, productive development and technological alliances, outsourcing, productive chains, technology enterprises and the adaptation and dissemination of technology.

#### 4. Extension work

International experience shows that industrial and agricultural extension work plays a central role in inducing demand.

The public sector could take on this task until the technology market matures, by developing networks of contacts among technological agents.

In recent years, ECLAC has proposed an extensive programme to accelerate the dissemination of best-practice technologies, through visits to foreign plants or firms which use them, to be financed jointly by the public and private sectors (ECLAC, 1994b). The Chilean Government has already initiated a programme of this type, whereby 40 technological missions have been organized in less than a year; according to the organizers, firms have expressed great satisfaction with the programme, which has been of low cost and has apparently had excellent effects on productivity.

#### 5. Vocational training and education

The average worker in the region receives barely two to four weeks of training in a 45-year working life, as compared with the 20 to 25 weeks which he or she would receive if 1% of the payroll was assigned to training activities, in accordance with international standards. In addition to being of quite limited duration, vocational training and education activities are incomplete and outdated, and are not part of a coherent system linking them to enterprises and to secondary-level technical education.

Generally speaking, training has the following aims: i) adapting human resources to the demands of competitiveness, especially in order to raise productivity and the incomes of less skilled workers; ii) adapting the productive and employment structure to sudden external changes; and iii) reducing the adverse effects of such changes on income distribution to a minimum (Paredes, 1994).

There is evidence that even in more developed countries, training activities tend to be concentrated in larger firms, and to benefit employees of higher educational attainments and rank, while paying little attention to less skilled workers and the unemployed. Moreover,

their funding is often procyclical, which limits labour mobility and retraining precisely at times when they are most necessary. In addition, training is generally of a specific nature, and thus does not contribute to labour mobility.

For this reason, completing the training market should be another pillar of productive development policy, and should occupy an important place on the national agenda in terms of both resources and institutional status. Much remains to be done with regard to coverage, quality of the training supply, institutional flexibility, linkages with business firms, and adaptation of the duration and contents of the curricula to demand.

It is necessary to stimulate a significant increase in spending by business firms on training by providing suitable tax and financial incentives. Public training institutions should also adapt their practices by increasing direct participation by firms and business associations in guiding their activities, encouraging the use of more market-based criteria in their management and linking training programmes to technological priorities. For this reason, primary attention should be focused on the mechanisms which foster the demand for training (see box VI.3).

In order to complete the training market, it is necessary to promote the harmonization of supply and demand, regulate the content, quality and relevance of training activities, and improve the incentives for training. This task can be carried out more cheaply and effectively if the public sector acts on a tripartite basis in conjunction with business and workers' organizations.

In order to improve the appropriateness of training, business firms must give stronger, clearer signals to the executing bodies. The links between the training system, technical and professional education and post-secondary technical education are still weak, and in some cases there are no mechanisms for the official approval of curricula so that students can transfer from one system to the other. A measure

### Box VI.3

### MEXICO: DEMAND-ORIENTED TRAINING

The Industrial Labour Force Training Programme (CIMO) is part of the efforts to achieve modernization and structural change that have been under way in Mexico since the start of the 1980s. The Programme is administered by the Secretariat of Labour and Social Security and is partially funded by the World Bank.

Its main goals are to reduce the constraints on growth resulting from the lack of skilled human resources, raise labour productivity by improving employment and training services and ensure the optimum availability of employment and training opportunities in all regions and among all social groups.

The Programme views training as an integral part of technology transfer and seeks to link it to the total programme of assistance and advisory services aimed at modernizing enterprises (through increases in productivity, quality, competitiveness) and improving the living standards and working conditions of the labour force.

This approach recognizes the enterprise as the basic productive unit and focuses attention on it While CIMO was initially targeted to training, it was gradually transformed into a total advisory programme designed to give support to enterprises in such areas as transfers of know-how and technology, occupational skills and the organization and management of the

production process. From the standpoint of the Programme, it was recognized that training workers was not always the highest priority for enterprises; that training and upgrading needs should be seen in the overall context of managing productive units; and, just as importantly, that training programmes must include not only workers, but also business owners and managers.

On the basis of this approach, CIMO seeks to mobilize national training resources in accordance with the needs expressed by enterprises, and to match the current training supply to them. Thus, in the framework of CIMO, training agents (individuals and institutions) were invited to design courses and programmes in accordance with the needs that were identified. The Programme currently requires that training activities be specifically adapted to the needs of enterprises, as a function of their size, location and productive specialization.

The Programme has shown that it is possible to create training and consultancy mechanisms for micro-enterprises and small-and medium-scale enterprises. In its first four years of operation, it has gained a promising foothold in the market, by providing assistance to 48,600 enterprises and training to 128,000 workers, with the participation of 158 trade and employers' associations.

Source: SCLAC, Formación y empresa: algunos aportes recientes (LC/R.1552), Santiago, Chile, 1995.

which would help to solve this problem would be the establishment of a system of certification of qualifications, with the direct participation of private and public enterprises, so as to measure the skills acquired in line with standards recognized in the labour market. This would strengthen the links between training and the secondary and post-secondary technical education system.

Moreover, increasing the coverage, quality and efficacy of training requires an improved capacity to formulate and assess training policies. Here, too, the goals of stimulating demand, promoting harmonization of supply and demand and strengthening the links between training institutions and enterprises can play an important role. In order to gain a full knowledge of business firms' training

needs and thus ensure the suitability of the services offered, the design and financing of training courses could be linked to commitments by specific firms as regards on-the-job practice or steady jobs for students completing these courses successfully (see box VI.4).

## 6. Education policy

In view of the essential contribution of human resources to systemic competitiveness, education policy should be regarded as another key dimension of the strategies for strengthening national systems of innovation.

If education and training systems are to fulfil their dual function of preparing the labour force to support innovative processes at all levels, while offering opportunities for individual development that can enhance social equity, they must form an integrated whole. In order to meet this challenge, it is necessary to correct the numerous flaws in the region's education systems and redress many of their tendencies. This the only way to improve their quality, social equity and relevance, and to establish a more harmonious relationship among education, vocational training and production (see box VI.5).

### E. EXPORT PROMOTION POLICIES

# 1. Instruments for promoting exports and producers' networks

There are a number of reasons for promoting exports, including, in particular, the need to counteract the anti-export bias characteristic of tariffs; the positive effects of export activity on other sectors; the deficiencies of the capital markets which hinder the financing of this activity, and the economies of scale and the learning opportunities which it offers. Where no active export promotion policy exists, exports tend to be concentrated in a small number of firms, and directed

towards products which are subject to less buoyant demand and greater vulnerability in international markets (ECLAC, 1995a).

Some of the more noteworthy characteristics of the export policies adopted in the region are the special treatment granted to export firms, which guarantees them access to inputs on competitive terms, and support for exports of new products or the penetration of new markets through the establishment of moderate incentives that are limited in time and are linked to precise goals in terms of new products, volumes or markets. 45

The public sector also has a very important role to play in providing institutional support for export activity, especially in such areas as information, financing and insurance; management training specially geared to developing the export potential of the business sector; and the promotion of export products abroad. Mention should also be made of the activities of governments in new export-related areas, such as investments in other countries designed to promote domestic products, the establishment of marketing chains and joint operations with foreign enterprises in export markets. All these activities constitute a new sphere of action which has begun to be incorporated into export promotion policies (Rosales, 1994).

Productive (and especially export) activity is increasingly carried on in line with the concept of networks. Accordingly, productive internationalization could be viewed as a set of networks and strategic alliances between enterprises in a given country and between them and foreign enterprises. Export activities increasingly form an integrated network or circuit with various links: suppliers, production, transport, imports, distribution, marketing, financing for importers and clients, and legal and financial services. The competitiveness of a product will depend

<sup>45</sup> ECLAC (1995a), chapter V, presents an analysis of the fiscal and financial incentives linked to export promotion policies in Latin America.

## Box VI.4

### BRAZIL: ENTERPRISE-ORIENTED TRAINING

The Paraná Federal Technological Education Centre (CEPET-PR), a unit of the Brazilian Secretariat of Middle-School and Technological Education, operates independently under a special arrangement with the Ministry of Education and Sports, and enjoys administrative and financial autonomy.

The Centre's goals are to: i) provide higher technological education for professionals at the graduate and post-graduate levels, ii) offer secondary-level technical courses to train technicians, teachers and teaching assistants; iii) provide continuing education courses to upgrade and complete professional skills in different spheres of technology, and iv) conduct applied technology research, stimulate technology creation and offer courses and services to the community at large.

One of the innovative features of CEFET-PR is the verticality of the training it offers, since middle-level technical education is integrated into higher education (university or non-university), and higher education is seen as a continuation of middle-level technical education that is distinct from what is offered by the university system. Another interesting aspect is the special emphasis placed on specialized training, which is always viewed in conjunction with trends in the labour market and with the development of the State of Paraná and of the region. In this way, CEFET-PR has been able to function in its region as a transmitter of frontier technologies and applied research which meet the needs of industrial development.

Another of the Centre's innovative features is the effort to institutionalize relations between schools and enterprises.

Thus, it has set up a Bureau of Business Relations, which serves as an interface with the business community. This strategy has made it possible to compile information on all local business firms; prepare catalogues, journals and other publications which publicize the Centre's activities; visit firms; participate in trade shows and exhibitions; and, in general, promote visits by business owners to its headquarters.

Some other initiatives worth mentioning are the half-yearly visits to business firms by the Centre's management officials, discussions of the contents of curricula and study programmes with business representatives; a programme to ensure that firms and schools use the same modern equipment; participation in trade shows; technological innovation programmes; technical field trips for students; post-graduate seminars for Centre alumni, in-house training of students and teachers, and commitments by firms to hire trainees.

The Centre is also implementing a development support programme for infant industries, which provides assistance to new, technology-based enterprises emerging in fields within the Centre's academic purview. Lastly, the Centre's MBA programme has a mechanism for turning business problems into the topic of a graduate thesis. Firms pay for students' tuition and course materials, while CEPET-PR contributes its physical and teaching resources. The results of the thesis research are turned over to the firms, and if they lead to the development of a prototype or a new product or process, a contract is signed which ensures that the royalties are shared equitably.

Source: ECLAC, Formación y empresa: algunos aportes recientes (L.C./R. 1552), Santiago, Chile, 1995.

on the efficiency of each of these links, which should be borne in mind in the formulation and adoption of policies and incentives.

Investment in the mining sector, for example, has increased notably, and has

been accompanied by expanded local processing of mining products and greater internal productive linkages; all these developments have multiplier effects that can increase added value. The same is true of some agricultural, forestry and fishing

### Box VI.5

### VIEWS ON EDUCATION POLICY

While the region's primary, secondary and higher education systems have experienced major growth in recent decades, they exhibit flaws which limit their effectiveness. Chief among these is the mediocre quality of education, which has led to unsatisfactory results in terms of basic skills acquisition, high repetition rates and low scholastic achievement at the primary, secondary and university levels. Second, the incentives awarded to schools and teachers have little to do with scholastic achievement, which results in an inefficient use of resources, a situation exacerbated by centralized management styles. Third, the contents of curricula and teaching methods are vastly inadequate to the requirements for modernizing production, from the standpoint of information and its processing. Fourth, systems of secondary and higher education, including training, are not linked to the productive sector, except in a few instances. Fifth, the distribution of public education spending tends to reinforce the system's discriminatory mechanisms by giving emphasis to higher education at the expense of preschool and primary education.

The growth of higher education exhibits specific trends which should be examined. First, the expansion of higher education (whose enrolment rate already hovers around 20%) has been accompanied by a proliferation of academic degrees, and of universities and institutes of higher education, while quality control systems have not developed to the same extent; this has aroused concerns over the value of higher education. In addition, most of the expansion has occurred in disciplines that do not require laboratories or practical work with equipment, which has hurt the technological and engineering disciplines. Lastly, funding for university-based research, which has always been scarce in the region, dropped still further during the 1980s, while showing no significant signs of recovery in the 1990s.

If the goal of education reforms is to improve the quality, social equity and relevance of education, and to establish a

more harmonious relationship among education, vocational training and production, a precondition for achieving this aim is to increase education funding substantially and to assign education resources more efficiently. Generally speaking, regional spending on education and training must rise to 10% of GDP, which means increasing it by 4%. This is the only way to ensure both the quality and the universality of education. This effort, which must obviously be gradual, implies a greater input of both public and private resources.

More efficient use of resources, meanwhile, requires that public spending be rechannelled into basic and secondary education and that greater emphasis be placed on technological subjects in secondary and higher education. Specifically, it is suggested that institutes of higher education establish bachelor of technology degrees, complemented by post-graduate specialization programmes; that public funding for higher education be rechannelled into scientific, technological and engineering fields; and that universities and independent academic research centres establish national and regional systems for creating and

adapting technology.

An essential goal is to close the gap between the educational world and the productive system. In order to achieve this aim, curricula must be linked more closely to the needs of business firms, and the world of work must be integrated, in theory and in practice, into all education modules and levels. It is also necessary to stimulate more systematic, permanent and effective practical work schemes; promote cooperation in apprenticeship programmes between secondary schools and enterprises; and establish dual-track training systems. Improving the quality and management of education also means increasing decentralization and giving educational establishments greater autonomy with regard to teaching methods, class schedules, curriculum content and management.

Source: ECLAC/UNISCO Regional Office for Education in Latin America and the Caribbean, Education and knowledge: basic pillars of changing production patterns with social equity (LC/G 1702/Rev.2-P), Santiago, Chile, April 1992. United Nations publication, Sales No. E.92.II.G.6.

activities, which makes it possible to envisage an export-led industrialization based on the utilization of natural resources. Such industrialization would be strengthened through the subsequent incorporation of knowledge and technology throughout the production and distribution chain, including associated services (see box VI.6).

Modern industrial development, which is dependent on productive chains, makes it necessary to pay attention not only to the production of goods, but also to the entire range of services linked to production, such as maintenance, repair, advisory assistance (industrial, technological, administrative and financial), computer programming and design and process engineering. This situation leads to two realizations. First, it is important to promote these production and services links by stimulating specialization and outsourcing through strategic alliances with suppliers, marketing and transport chains, consumers and even competitors. Second, is necessary to review the appropriateness of export incentives in order to take account of the importance of export chains.

In cases where success has been obtained with exports based mainly on intensive utilization of natural resources, it is also necessary to consolidate the existing advantages by moving on to the areas of inputs, capital goods, technology and associated services. It is therefore recommended that the export profile be gradually redirected towards products greater added value and technological content which enjoy more dynamic markets and steadier prices, with less risk of protectionism, thus reducing the vulnerability of the overall range of exports.

This does not imply a polarization between primary products and industrial goods, since the important thing is the amount of knowledge and technology incorporated in each product, along with the promotion of chains of production and services for exports.

In agriculture, for example, the conventional distinction between processed and fresh (or unprocessed) crops does not necessarily reflect greater or lesser incorporation of added value. In many cases, unprocessed crops require quite complex processes of production, harvesting, selection, classification, quality control, storage and transport. The final consumer markets for these goods tend to be demanding with regard to quality and presentation, so that various services are required in addition to the production process, which increase the added value and the content of technological knowledge of the goods (ECLAC, 1993a).

In practice, the incorporation of technological innovations into various aspects of the distribution of agricultural products (storage, refrigeration, transport, ports, etc.) and of mineral exploration and exploitation, including environmental protection, are examples of how the added value of primary exports can be increased, often through the adoption of international frontier technologies.

# 2. Restructuring of export promotion institutions

The public institutions responsible for the design and execution of export development policies have not evolved as fast as the growing process of internationalization of the economies of the region<sup>46</sup>. This is why it is important to bring the rates of evolution and performance of the promotional bodies and the respective ministries, including Foreign Ministries, into line with these new challenges. Such adaptation should be carried out in concert with exporters'

<sup>46</sup> This is reflected, in particular, in the fact that promotion policies pay little or no attention to services exports, a very dynamic sector which is closely linked to technological innovations and also constitutes one of the decisive factors in the growing number of external investments being made by countries in the region.

### Box VI.6

# SMALL-SCALE AGRICULTURE, AGROINDUSTRY AND TOURISM IN THE CARIBBEAN

The notable increase in tourism in the Caribbean islands, and the resulting need to supply tropical and semi-tropical fruits and vegetables to hotel chains and tourist centres, offers the opportunity to organize an agricultural production and agroindustrial processing activity which, because of its backward and forward linkages, could have far-reaching implications. In order to meet the demand for quality products typical of a market segment such as tourism, this activity must have a high technological content and must also be able to ensure a steady supply.

As the products in question are fresh fruits and vegetables, whose quality is highly dependent on proper handling, it seems feasible to organize production on the basis of small-scale agricultural units, such as family farms, which have been shown to be more efficient than larger units because they do not hire outside labour. This specific trait makes it possible to link the output of small family farms to markets which are demanding with regard to quality, but are willing to pay favourable prices. At the same time, bearing in mind that the demand for these products is generated within the national territory by consumers from high-income countries, supplying this market turns out, in practice, to be an export activity within a country's frontiers. Once the stage of market consolidation has been reached, countries can begin exporting these products to the countries of origin of the main tourist flows.

organizations so as to stimulate a stronger private sector commitment to the trade promotion, technological development and training policies, some of which must gradually be adjusted to the multilateral agreements concluded within the framework of the Uruguay Round (see box VI.7).

To this end, it would be helpful to work out national strategies of a consensual nature, with targets clearly defined by the private sector in terms of trade promotion and investments by regions and markets, so as to enable the unified and timely handling of the tasks of trade promotion, penetration and defence of markets, and the quest for new technologies and business opportunities.

The fundamental contribution of the public sector to improved export performance lies in ensuring a climate of growth and economic stability, giving incentives a global orientation which reduces anti-export biases and guarantees access to inputs on competitive terms, and providing export activities with institutional support, especially as regards information, finance, export

insurance and the promotion of exportable supply abroad (Rosales, 1995). All the above, however, is not of itself sufficient to ensure progress towards a phase of internationalization of production and fuller and deeper export activities. This contribution must therefore be accompanied by investment abroad, participation in marketing chains, joint operations with local firms in the export markets, and redoubled attention to promotion, quality and brand differentiation.

The progress made in recent years in free trade agreements and integration schemes raises new challenges for countries with regard to their trade and export promotion policies, including the gradual unification of incentives and the harmonization of technical, customs, sanitation and environmental standards. These agreements also call for integrated approaches to trade, investment and the development of infrastructure, which opens up new possibilities for designing instruments to promote private investment that are in keeping with the goals of changing

### Box VI.7

### ADJUSTMENT OF INSTRUMENTS TO MULTILATERAL NORMS

As a result of the recent Uruguay Round of Multilateral Trade Negotiations, it will be necessary to eliminate a number of measures for promoting production, however, new opportunities are also being opened up, so that there is a need to refine the analysis of appropriate policies and instruments. The following are some of the policy measures which can be recommended and are not likely to lead to reprisals by the developed countries:

 a) Establishing general subsidies for research and development and employment training;

 b) Granting non-directed credit, at market rates, for research and development and

procurement of know-how;

c) Granting direct subsidies for exports to the least-developed country Members referred to in article 27, annex VII, of the Uruguay Round Agreement on Subsidies and Countervailing Measures (annex 1A of the Agreement Establishing the World Trade Organization (WTO));

d) Providing temporary subsidies for production in sectors with static economies of scale (particularly infrastructure, telecommunications and energy), of a size which will not trigger reprisals by the

developed countries;

 e) Establishing a uniform tariff system which, in the event of balance-of-payments crises, will make it possible to apply the highest consolidated tariff level, but with a structure decreasing in the long term;

f) Adopting a set of countervailing measures, such as safeguards and anti-dumping duties, in order to deal with

unfair competition;

g) As regards policy with respect to foreign investment, while there are now major restrictions, wto does not require either neutrality towards foreign investors or equal treatment for domestic and foreign investors (for tax and financial purposes, for example);

h) With respect to intellectual property, who minimum requirements can be met by adopting looser legal frameworks, similar to those of some developed countries. In this connection, it is important to establish a system that allows information to be used freely for scientific purposes and for public goods, something which is not prohibited by with:

 i) Establishing a system to control abusive practices by owners of intellectual property rights; other alternatives are to promote mandatory licensing or to request that rights

be declared to have lapsed.

While the framework for productive development now appears to be narrower, it is also true that the existence of strong international institutions in this sphere, such as WTO, ensures greater transparency and equity in multilateral affairs, which can also be seen as a gain for the developing countries.

Source: J. Katz, G. Crespi and G. Stumpo, "Desempeño global y comportamiento industrial de América Latina en el período 1970-1993", Desarrollo productivo series, No. 31 (LC/G.1910), Santiago, Chile, 1996.

production patterns and open regionalism.

## F. THE ROLE OF COOPERATION IN STRENGTHENING THE ENTREPRENEURIAL BASE

In order to progress in the internationalization of production it is necessary to ensure closer collaboration

between the public and private sectors. This is necessary, for instance, in order to promote greater national influence in global production, marketing and transport chains connected with exportable supply and in order to stimulate the formation of national marketing firms as part of a more active trade policy.

In this respect, it is necessary to increase the public resources assigned to

promotion; to establish incentives favouring trade promotion; to persuade the private sector to invest more heavily in this task, and to improve public/private coordination in such areas as promotion of the country's image abroad.

Cooperation between public and private agents can facilitate the establishment of private technology transfer centres oriented to specific sectors and ensure that they have the support of business associations. Another possibility worth considering is setting up trilateral bodies to engage in activities to promote productivity and technological innovation.

The territorial variable is undoubtedly an essential factor in genuine efforts to change production patterns, as regards the adoption of both technological innovations and development policies. It is therefore important to provide regional and local governments with the institutional structure, the technical capacity and the resources which they need in order to create opportunities for strategic cooperation between socioeconomic agents, and to ensure appropriate targeting of policies to support small- and medium-scale enterprises, especially by providing them with access to modern services (Alburquerque, 1995).

In looking towards the future, it is important to analyse the possible effects of the retooling that is gradually becoming necessary as a result of the globalization process and territorial free trade agreements. It is deemed necessary to eliminate the fragmentation that tends to characterize regional public-sector intervention for productive development purposes, a task which implies giving greater coherence to the instruments for promoting productive and technological development and professional training. In some cases, where an entrepreneurial base already exists, the establishment of regional development centres based on public/private cooperation, universities and technology institutes may contribute to strengthening development and increasing the effectiveness of productive development policies by strengthening business associations, thus providing the government with a well-documented regional counterpart.

In order to facilitate the achievement of these goals, the public sector could grant tax rebates, limited to export firms which undertake to strengthen the activities of their trade associations. Such resources could be used to finance technical support to exporters' and producers' groups to permit them to improve their capacity for analysis in respect of technology, trade and international economic relations in general. Increasing the technical know-how of businessmen and workers, especially those employed in export firms, and strengthening the activities of trade associations and labour organizations, would help to give the public sector a better-documented counterpart, capable of submitting specific proposals, thus improving the overall capacity for outlining external trade and productive development strategies.

A possible institutional expression of this could be the development of tripartite productivity and competitiveness centres –i.e., with the participation of the public sector (the government, universities and technology centres), business associations and labour organizations–to follow up the evolution of competitiveness and of sectoral technological and commercial trends, approaching national issues with due consideration of the international aspects involved.

In this connection, there is evidence of a growing interest in the development of joint mechanisms for designing and, in particular, implementing policies. Some examples of mechanisms of this type are the Consejo Nacional de Competitividad of Colombia, the Foro de Desarrollo Productivo of Chile and the Câmara Consultiva Estrutural of Brazil.<sup>47</sup>

<sup>47</sup> In accordance with the provisions of its resolution 549 (XXV), ECLAC pays close attention to these activities and participates in some of them.

## G. PROMOTION OF COMPETITION AND REGULATION OF MONOPOLIES

## 1. Competitive markets

The promotion of competition, an integral part of productive development, can take place simultaneously in three areas: i) deregulation of competitive markets, which are the majority; ii) regulation of markets which are dominated by natural monopolies or have other deficiencies in terms of industrial organization, but which are very decisive to individual well-being and international competitiveness; and iii) deepening and expansion of the coverage of nascent or underdeveloped markets, such as those for technology, training and long-term capital.

In order to take full advantage of the potential of the market for more efficient resource allocation, it is necessary that markets be competitive, transparent and readily accessible. In addition, they must lead to a reduction in economic rents, i.e., those deriving not from productive, but from speculative and monopolistic activities, or from disparities in negotiating power and access to information. Creating markets where they do not exist, strengthening them when they need improvement, and regulating them when they are of critical importance are basic elements of pro-market development policy. productive Democratizing access to markets, improving their efficiency and transparency, and reducing the tendencies towards economic concentration are also valid alternatives for raising efficiency, competitiveness and equity.48

In order to ensure the effective operation of competitive markets, the public sector must have sufficient

regulatory capacity to take action both on the structure of markets, so as to do away with anti-competitive practices, and on the results of their operation. Generally speaking, promoting competition is the best policy for stimulating efficiency, but when this is not possible, timely regulation is the next best option.

## 2. Nature and goals of regulation

There are two cases in which the adoption of regulatory measures based on economic criteria is justified by market deficiencies: first, where there is a difference between prices and marginal costs and no competitive options are available (natural monopolies), and, second, where other options exist, but they are not efficient, due to externalities or to unequal access to information.

Economic regulation is one option; another is social regulation, which makes it possible to counteract a wide range of collateral effects and external characteristics of economic activities relating to health care, environment, unemployment insurance and consumer affairs. In particular, this type of regulation may consist of the adoption of antidiscriminatory measures designed to protect the rights of citizens.

Economic regulation can have various goals which are not always compatible with one another. The most important of all is promoting competition, seen either as an end in itself, or as a mechanism that makes it possible to increase individual and collective efficiency. In the view of several authors, public and private enterprises are more efficient when they are exposed to competition. Therefore, where competition increases in response to regulation or deregulation, efficiency also increases.

According to other authors, competition is not an end in itself, but a

<sup>48</sup> There is a broad range of measures which, besides helping to enhance competitiveness, have positive effects related to social equity. These include measures aimed at completing technology markets; facilitating workers' access to training markets; eliminating the segmentation of the capital market by increasing access to credit for small- and medium-scale enterprises; and improving relations between contractors and suppliers, and between direct and indirect exporters.

means of enhancing economic efficiency, understood as the maximization of the total current value of consumers' and producers' surpluses. This definition takes due account of the trade-off between static and dynamic efficiency, since a lower level of well-being can be acceptable, providing that the market structure or behaviour which causes it contributes to increasing efficiency in the long term; this result is possible only where such an increase is not overly delayed and the social discount rate is not too high. This definition emphasizes the importance of increasing the competitiveness of enterprises, which is even more important than adopting policies to promote competition.

## 3. Regulation of natural monopolies

The existence of a single offerer in a branch of industry constitutes the least expensive production alternative in cases where important economies of scale or scope can be realized at all stages of the production process, and where the non-recoverable costs resulting from irreversible investments are very high, circumstances which give rise to a natural monopoly. Nevertheless, the lack of competitive conditions can lead to the abuse of a monopoly position, which reduces efficiency in the allocation of resources, the competitiveness of the industry and the well-being of consumers. This situation justifies the adoption of regulatory measures and raises public policy dilemmas that are still unresolved in practice.

# Institutional factors and promotion of competition

In the case of natural monopolies, the concentration of production in a single agent prevents the inefficient duplication of functions. While competition might appear to be contrary to efficient production, there is a potential for competition even in this case.

The level of horizontal and vertical integration, the existence of exclusive legal

rights, the concentration of supply and the number of independent service offerers having the characteristics of natural monopolies constitute entry barriers. Accordingly, in order to promote competition in cases of privatization of monopoly enterprises, privatization should be preceded by a restructuring of the activity in question. Such restructuring should be based on a distinction between competitive activities and those having monopoly characteristics, so as to avoid overlapping subsidies and the protection of inefficiency in the competitive sector. In order to clarify this distinction, enterprises should be set up in both sectors, as a way of ensuring that competition will not be distorted by overlapping subsidies and that the firms in the competitive sector will have to assume the risk of inefficient operation.

# Price-fixing and asymmetrical access to information

The high transaction costs of regulated enterprises and, in particular, the costs resulting from imperfect information, hinder price-fixing by natural monopolies. One of the more common approaches used in such cases is regulation based on the rate of return; the information provided by the enterprise concerning operating costs, capital consumption and capital costs is audited, and is then used to calculate a reasonable rate of return, taking due account of sales data. This approach has some drawbacks, as it offers no incentives for reducing costs, stimulates an excessive expansion of capital and discourages the use of advanced technologies. Hence, a price cap based on inflation and an agreed productivity level has been suggested as an alternative. In practice, the developed countries have found either of the two methods to be equally valuable (Schmalensee, 1994).

In order to reduce asymmetrical access to information in the case of natural monopolies, countries can choose, among other options, to allow various enterprises to operate different local monopolies; in this case, horizontal integration should be

avoided, so as to make cost comparisons possible.

# 4. Challenges of regulation in Latin America

In the context of economic reform processes, many countries of the region have privatized State-owned enterprises which engage in resource exploitation and constitute natural monopolies, and their associated activities. It thus becomes necessary to regulate the respective markets and to ensure an efficient allocation of resources, especially in sectors whose structure lends itself to the creation of a natural monopoly. Thus, defining the State's regulatory role has become a basic element of economic policy for the governments of the region.

The issue of regulation raises a number of questions regarding the areas in which intervention is appropriate and the most suitable regulatory methods.

## Where and when to regulate

Specific instances of regulation in various countries show that its effects depend mainly on the activity to be regulated. Furthermore, Latin American experience indicates that the existence of an efficient regulatory regime has a notable influence on the outcome of privatizations (ECLAC, 1994c). particular, in activities subject to externalities and conditions that give rise to natural monopolies, the lack of public intervention which accompanies privatizations leads to suboptimal results. In such cases, a specific form of regulation which is aimed at promoting competition or which simulates the results of a competitive situation, while maintaining monopoly conditions of production, can have positive effects on social well-being and international competitiveness.

In Latin America there have been relatively few cases of sectoral regulation. In the first place, this type of regulation poses numerous challenges in terms of human resources training, redefining functions and creating new institutional

structures. Second, the use of public regulatory measures tends to be complex and expensive.

The countries of the region are at different stages in the process of adopting regulatory measures, a process that is, to a large extent, a practical apprenticeship. The countries that are most advanced in privatization, meanwhile, are those that have gone the farthest in regulation. In Latin America, the privatization of public service enterprises is giving rise to a new kind of institutional development, based on a distinction among the legislative, regulatory and productive functions that tended to be concentrated in the sectoral secretariats of the ministries to which the public enterprises were attached. A new system has begun to be implemented, whereby productive functions are transferred to the private sector, while the State continues to fulfil a legislative role, through the sectoral secretariats responsible for outlining policies and indicative plans, and a regulatory role, through specific sectoral bodies which are, generally speaking, responsible for fixing prices, granting licences and concessions, and enforcing compliance with laws and regulations.

This new institutional structure tends to consist of bodies that have arisen within a single sector. This situation has led to a lack of coordination among sectoral regulatory agencies, due to the coexistence of agencies having different levels of power and decision-making authority, and, at the same time, to a situation in which the regulatory agencies have a limited degree of autonomy from the governmental machinery. In response to this situation, Bolivia has established an independent regulatory agency responsible for coordinating the sectoral institutions (through the SIRESE Act).

The cost of a regulatory system such as the one described above is one problem; there are also a number of broader issues which the State, as the regulatory body, must be able to address: i) limited information and asymmetrical access to information on the part of the regulatory agency and the enterprises which it

#### Box VI.8

# PRIVATIZATION AND REGULATION IN THE TELECOMMUNICATIONS SECTOR

In Latin America, the telecommunications sector has tended to operate with State subsidies and price distortions. Some of the consequences of this situation have been overlapping subsidies for long-distance and local telephone service, an excessive rise in installation costs, with the resulting constraint on access to service, extremely long waiting periods and substandard service

quality.

In general, the privatization of telephone companies in the region has had two results: i) a substantial increase in investment, which is making it possible to expand the number of lines per capita, reduce costs and waiting periods for telephone service, and modernize telecommunications systems, with favourable effects on the overall productivity of the economy; and ii) the establishment of regulatory systems which have contributed to separating the regulatory and productive functions, by bringing the price structure closer to costs and, to a lesser extent, providing a mechanism that makes it possible to ensure acceptable levels of service quality.

The chief characteristic of the approach to privatization in this sector has been the granting of a legal monopoly to private investors for a period of 6 to 10 years; thus, these monopolies have been able to realize extremely high profit margins. The challenge of regulation, associated with the risk of seizure, is stronger in this sector, since it is difficult to implement effective penalties.

While some Latin American countries have signalled their intention of opening the fixed telephone system to competition -as has, in fact, already occurred, owing to the introduction of cellular telephones- only Chile has so far changed the structure of the industry. In Chile, progress has been made towards the creation of truly competitive conditions in long-distance service, thanks to the recent introduction of the so-called multi-carrier system, through which users can select the company that provides the service. The adoption of this system has directly benefited users, since telephone rates have dropped substantially (by between 30% and 50%), and domestic and international long-distance traffic has expanded by 35% and 100%, respectively.

regulates; ii) the risk of regulatory seizure; and iii) problems posed by investment incentives. Doing away with these problems by setting up independent and autonomous regulatory agencies, whose employees are well compensated and possess the requisite technical skills, requires a substantial volume of financial and human resources.

The debate over this issue reflects an increasing recognition of the need to reduce State regulation as much as possible and to establish mechanisms to promote competition. Privatizations offer a good opportunity to strengthen competition, providing that it is feasible to change the market structures which come into play at different stages of the production process. This is what most countries have done in recent years in

connection with privatization of the electric power sector. Through this process, generation and supply, operations in which competitive conditions can be established, have been separated and decentralized, while transmission, which has the characteristics of a natural monopoly, has remained in State hands.

As to the cases in which regulation is justified, it is also recognized that it is necessary to take due account of the costs and limitations of intervention, in order to determine whether they outweigh the market failures that regulation seeks to redress.

### How to regulate

The effects of regulation also depend on the mechanisms used for intervening in specific sectors. Latin American experience shows that there are no generally valid solutions, since each country and each sector has specific characteristics that make it necessary to analyse each situation separately. Generally speaking, however, the regulatory system to be established, in addition to being efficient, must provide incentives for the manufacture of new products and make it possible to expand service coverage –especially in the case of services targeted to the areas, sectors

and groups that receive the least attention— and must ensure that the supply of goods and services is of the highest quality. Regulatory norms must be transparent and stable, and must reflect the State's commitment to realizing an acceptable long-term rate of return on the investments which it deems socially useful; at the same time, these norms must be sufficiently flexible so that they can be adapted to any economic, institutional and technological changes that may occur in the markets (see box VI.8).

## VII. POLICIES TO PROMOTE SAVING, INVESTMENT AND FINANCIAL DEVELOPMENT

Once economic recovery is complete and the production frontier has been reached, meeting additional aggregate demand will entail new production and hence an increase in investment to sustain it. Maintaining even the current moderate rates of growth will then require higher rates of investment than prevail at present.

Financing investment for growth calls for action on three fronts: promoting national saving, both public and private; consolidating a climate favourable to real investment; and developing the financial system to facilitate the intermediation of financial savings into real investment.

# A. PROMOTING NATIONAL SAVING

Analysis of the levels and trends in public and private saving in the countries of the region suggests three major conclusions. First, in designing a policy that expressly promotes all components of national saving, it is essential to include options that will increase private saving through mechanisms that offer a greater incentive than the positive real interest rates offered by the market. Second, public saving must also be increased. Third, when seeking to

attract external savings, efforts should be made to minimize their substitution for national savings.

# 1. Options for increasing private saving

A number of studies have shown that it is difficult to increase private saving with conventional policies based on higher real interest rates. 49 The lack of response to such policies suggests that the substitution effect (the rise in interest rate makes present consumption more expensive in relation to future consumption, so that saving increases) and the income effect (higher interest rates make it possible to earn more with the same capital, so that consumption increases) tend to cancel one another out. Furthermore, an increase in interest rates can work to the detriment of firms, which are net debtors of the financial system (Massad and Eyzaguirre, 1990). While the effects of interest rates on saving are uncertain, it is well-known that they have a great influence on the composition of investors' portfolios in terms of the financial instruments they hold.

Experience inside and outside the region has demonstrated the efficacy of

<sup>49</sup> According to a number of empirical studies, the real interest rate does not stimulate saving (due to its effect on intertemporal preferences), a fact that runs counter to predictions based on interest or capital theories (Massad and Eyzaguirre, 1990).

three policy alternatives for tapping the private sector's savings potential: i) linking access to capital goods highly prized by households (own home, for example) to prior saving; ii) reorienting social security systems towards institutional saving on the part of workers (e.g., pension systems based on capitalization); and iii) adopting measures to increase the income at the disposal of the private agents most likely to save it (incentives for firms to reinvest their profits).

## a) Prior saving required for home ownership

Experience shows that low- and middle-income individuals and families are willing to make a substantial savings effort to obtain suitable housing. The basic strategy is to extend the capital market to the low- and middle-income sectors by facilitating their access to sources of home financing both private (mortgage bonds) and public (direct, government-provided subsidies and mortgage loans), on condition that the beneficiaries themselves contribute a certain portion from their own prior savings.

One formula for applying this strategy is to make prior saving one of the factors in a score that determines eligibility for a housing subsidy granted by the State to low- and middle-income families. Prior saving plus government subsidy and access to financing enable individuals and families to make their demand effective in the marketplace. In cases where the level of personal or household income is too low, it may be possible to substitute a contribution of labour in place of prior saving. Another possibility is to establish savings and home loan cooperatives on the basis of the prior savings of organized groups of individuals to facilitate their access to financing and public subsidies for housing construction.

The OECD countries have also treated home ownership as a policy objective in order to encourage saving. The mechanisms used in these countries, however, are purely tax-related and involve allowing the deduction of mortgage payments for tax purposes and reducing taxes on transactions and capital.

# b) Converting social security contributions into savings

The strategy here is to increase worker saving by changing the nature of mandatory social security contributions. In place of deductions in return for the guarantee of a pension in old age, as in distribution systems, under a capitalization system these contributions are converted into savings that accumulate to form a fund (group or individual) from which to finance a pension (old age, disability or survivors').

The example most often cited is the reform of the pension system in Chile in early 1981, which entailed a shift from a distribution system with defined benefits, primarily administered by the State, to a privately administered, State-regulated system in which each individual essentially finances his or her own pension benefit with defined contributions. The capitalization system introduced by the Chilean reform has been adopted as one of the components of social security reform in Argentina, Bolivia, Colombia and Peru. In Brazil, Costa Rica, Honduras and El Salvador, it is also being considered for inclusion in proposals that are being drawn up. The Chilean reform, however, now into its second decade, is still the only source of empirical evidence with which to evaluate the impact of a strategy of this kind on saving (see box VII.1).

In the preliminary assessments on saving behaviour in Chile (see table VII-1), it is assumed for the sake of simplicity that pension saving by workers corresponds to total private pension saving (column 6); the latter figure has increased steadily since 1981 and in 1994 was equivalent to 3.9% of GDP. Over the same period, the Government's current surplus (column 3) has risen from under 2% of GDP on average in the early 1980s to over 4% in the early 1990s, despite a social security deficit (column 1) that during the latter period still equalled 4.5% of GDP. These facts suggest that it is not possible to evaluate

### Box VII.1

### PENSION SCHEMES AND FINANCIAL DEEPENING CONDUCIVE TO SAVING AND INVESTMENT

It is vital that pension schemes be reformed in order to foster financial deepening conducive to saving and investment (quite apart from its direct effect on saving). Noteworthy measures which can be recommended for all pension schemes

currently in force include:

i) Implementing transparent actuarial planning mechanisms which show the increases in contribution rates and reductions in benefits that may be required, so as to facilitate the adoption of timely measures to correct possible financial imbalances by adjusting benefits to match contributions, and through financial management of the latter;

 ii) Establishing indexation mechanisms for the scheme's financial assets, in order to curb the inflationary erosion of reserve funds; alternatively, it may be possible to consider introducing financial instruments subject to a floating interest rate regime; iii) Prohibiting by law the use of reserve funds for purposes other than investment in areas related to the pension scheme, and placing these funds in properly regulated and supervised financial schemes;

iv) Reducing delinquency through the setting up of a scheme which penalizes workers and firms that default on pension payments. One possibility would be to extend the contribution period required in order to qualify for benefits;

 v) Improving the administration of the scheme, by providing for participation by the private and mutual-insurance sectors;

vi) Reviewing the eligibility criteria governing universal and welfare pensions, both in order to close loopholes and to ensure that workers are not discouraged from participating in schemes based on social or private insurance.

Source: ECLAC, Promoción del ahorro y los sistemas de pensiones (LC/R 1606), Santiago, Chile, November 1995.

the impact of social security reform on saving without first examining the fiscal implications. While in the case of Chile the effect on national saving has been positive, this is due only in part to the direct consequences of the reform (the contributions increase household pension savings, but they may be displacing another form of savings, while the public sector must assume the fiscal cost of the transition). What is important is that making transparent the relationship between the amount of the contributions, their capitalization and the funds accumulated for the payment of pensions, has generated significant effects that indirectly influence saving (fiscal discipline and the deepening and expansion of financial markets). These indirect effects have had a dramatic

impact, particularly as a consequence of a major fiscal adjustment.

In order for pension saving by workers to make a net contribution to national saving, at least two conditions must be met. First, mandatory saving by workers should not result in a reduction in their voluntary saving. According to the theory of the short-run view, during their working life individuals do not adequately anticipate their own needs and the needs of their children in their old age or in case of disability or death; therefore, they do not voluntarily save enough for these purposes. Hence, mandatory pension saving should result in a net increase in personal saving (Valdés, 1994).

Second, the social security deficit caused by the reform must not reduce public saving, or at any rate the reduction

Table VII.1
<b>EVOLUTION OF NATIONAL SAVING IN CHILE</b>

	Trace1	Curre	P	ublic savin	g	P	rivate savir	ıg
Year	Total social security deficit (1)	Gross nation- al saving (2)	Current surplus (3)	Copper stabi- liza- tion fund (4)	Total (5)	Private pension saving (6)	Private non-pension saving (7)	Total (8)
1980	1.7	13.9	8.5	0.0	8.5	0.0	5.4	5.4
1981	4.1	8.2	5.8	0.0	5.8	0.9	1.5	2.4
1982	8.3	2.1	-2.9	0.0	-2.9	1.8	3.2	5.0
1983	7.5	4.4	-2.3	0.0	-2.3	1.7	5.0	6.7
1984	7.7	2.9	-1.2	0.0	-1.2	1.9	2.2	4.1
1985	6.7	7.8	0.4	0.0	0.4	2.0	5.4	7.4
1986	6.3	11.5	1.3	0.0	1.3	2.2	8.0	10.2
1987	5.4	17.3	3.0	0.5	3.5	2.3	11.5	13.8
1988	5.2	22.3	3.0	3.0	6.0	2.7	13.6	16.3
1989	4.5	23.7	3.0	3. <i>7</i>	6.7	2.9	14.1	17.0
1990	4.6	24.2	2.5	2.3	4.8	3.0	16.4	19.4
1991	4.5	24.1	3.7	0.7	4.4	2.8	16.9	19.7
1992	4.3	24.8	4.9	0.3	5.2	3.3	16.3	19.6
1993	4.5	23.9	4.8	-0.2	4.6	3.6	15. <b>7</b>	19.3
1994	4.5	25.4	4.9	0.2	5.1	3.9	16.4	20.3
1980-1984	5.9	6.3	1.6	0.0	·1.6	1.6	3.5	4.7
1985-1989	5.6	16.5	2.1	2.4	3.6	2.4	10.5	12.9
1990-1994	4.5	24.5	4.2	0.7	4.8	3.3	16.3	19.7

Source: P. Arrau, "Evolución de la tasa de ahorro nacional en Chile: 1980-1994", Santiago, Chile, International Trade, Finance and Transport Division, Economic Commission for Latin America and the Caribbean (ECLAC), 1995, preliminary version.

must be proportionally less than the increase in pension saving by workers. Replacement of a distribution system by a capitalization system or the incorporation of capitalization components into the reform plans normally results in a social security deficit for the public sector. The deficit results because as new participants contribute to their own pension funds, the public sector must continue paying the pensions of those who have already retired and at the same time credit the contributions made under the old system by those who are still working when the reform takes effect. As a result, the public sector must adjust its budget by an amount at least equal to the social security deficit; less the pension savings of workers. It should be borne in mind that the current tendency to replace or supplement distribution systems with capitalization components<sup>50</sup> means that during the transition period the public sector will have to make a major budget adjustment effort and that the financial system will have to adhere to regulations and establish basic institutions to serve as intermediaries for workers' funds.

OECD countries have also considered promoting pension saving as a means of increasing household saving. The tax measures adopted to achieve this end

<sup>50</sup> The purpose is to make the return on the contributions of each participant in the system correspond to the trend in productivity for the economy as a whole, rather than to the productivity of labour. The current tendencies mentioned are based on the assumption that in a context of greater efficiency the productivity of the economy will be greater than the productivity of labour.

include: allowing deductions for tax purposes of contributions to voluntary private retirement funds and employer contributions to pension systems; exempting the yield on pension funds and pension payments from taxation; and disseminating awareness of the importance of saving for retirement.

# c) Increasing the savings and investment capacity of firms

Fiscal policy has available a good tool for encouraging saving, namely, the tax structure. Some developing countries have demonstrated the effectiveness in this regard of measures such as exempting savings from taxes and reducing marginal income tax rates while maintaining the progressive structure of average rates (Boskin, 1988; Friend, 1986).

Similarly, the fact that interest paid on consumer loans cannot be deducted for tax purposes has encouraged Japanese households to save (Makin, 1986). There is also some strong empirical evidence in support of measures that tend to shift the tax burden from firms to individuals. The greater inclination of firms to save (invest) has been confirmed by estimates made in the United States to the effect that private saving increases by 12 cents for each dollar of tax burden shifted from firms to individuals.

There is no consensus on the subject, however. Some argue that tax reforms oriented towards improving the return on private savings have distributive costs and costs in the form of tax evasion and lowered tax revenues, in exchange for an uncertain effect on saving. In academic circles, on the other hand, it is generally agreed that tax incentives for investment are more effective in promoting private investment, at a lower cost than savings incentives, and furthermore are more

selective in favour of productive investment (Marfán, 1986).

## 2. Increasing public saving

The empirical evidence refutes the notion that there is a close intergenerational link between public saving and private saving.<sup>51</sup> This means that the public sector can transfer resources from one generation to another without the private sector making an offsetting transfer of equal magnitude. This statement is supported by econometric studies on OECD countries (Bernheim, 1987, Hubbard and Judd, 1986; Leiderman and Blejer, 1988) and developing countries (Haque and Montier, 1989; Corbo and Schmidt-Hebbel, 1991; Easterly, Rodriguez and Schmidt-Hebbel, 1994). Estimates of the offset coefficient between public and private saving differ depending on the sample and the country studied, but average out to 0.47 (Corbo and Schmidt-Hebbel, 1991). This means that on the average an increase in public saving by one per cent of GDP reduces private saving by roughly one half per cent. Hence the recommendation that public saving be increased as one option for increasing total national saving.

The difference in results from country to country is attributable to the variety of ways that public saving can be raised, by, for example, increasing tax revenues, reducing government current expenditure, rationalizing the finances of public enterprises (including the social security systems already discussed), reducing external indebtedness or any combination of the above. Since reducing public spending has a different effect on the disposable income of private agents than increasing taxes, the impact on private saving will vary according to the combination of measures employed to

<sup>51</sup> Theories differ as to whether or not changes in public saving are offset by changes in private saving, the reason being that theoretical analyses on which they are based start from different assumptions with respect to the intergenerational relations between public and private saving.

<sup>52</sup> There were times when 80% of external debt was the responsibility of the public sector, either because the State had originally contracted it or because it had assumed some or all of the private debt in renegotiations. Average interest went from 8% to 19% of total fiscal revenue, an increase equal to 2% of GDP (ECLAC, 1992b).

increase public saving. In any event, these components should be part of a progressive fiscal reform that seeks to mobilize resources to implement public policies that foster changes in production patterns and enhance social equity, whether the State acts as the direct provider of goods and services or indirectly promotes the welfare of the population by stimulating economic activity.

Also effective in increasing public saving are measures intended to consolidate fiscal balance over the long term by setting reasonable levels of tax revenues<sup>53</sup> and restructuring expenditure. Tax reform proposals point out that the tax burden in the region is relatively low in comparison with OECD and Asian countries, so that there remains some room to raise taxes without affecting competitiveness.<sup>54</sup>

# 3. External savings as a supplement

The impact on national saving of a greater net influx of external capital, measured by the balance-of-payments current-account deficit, or external savings, can be conceptualized in terms of two effects. One is the positive income effect, which is manifested in the increased economic activity made possible by the availability of external funds. The other is the negative substitution effect, deriving primarily from the wealth effect associated with the higher value of assets (physical and financial), the decline in the prices of tradable goods in response to the appreciation of the local currency, and the increased liquidity and availability of domestic credit. At a given rate of investment, if the substitution effect is greater than the income effect, there is a net substitution of external savings for national savings (Held and Uthoff, 1995).

The region's experience to date has been that a greater availability of international resources in the form of external savings has led to a major displacement of national savings (see box VII.2). This tendency underscores the importance of a policy of attracting external capital that complements national savings (and minimizing the substitution effect). Such a policy should carefully examine the amount, cost and quality of the external capital needed for growth in Latin American and Caribbean countries and take into account the risks it entails and the degree of confidence that foreign investors have in the region's economies (ECLAC, 1995a; Zahler, 1995). It should seek to attract medium- and long-term resources which increase the country's production capacity (and have a strong income effect) and discourage the entry of short-term capital of a volatile or transitory nature (which tends to have a strong substitution effect).

Such a policy raises important macroeconomic management questions (ECLAC, 1995a) concerning the advisability of: i) running a "reasonable" currentaccount deficit, as a percentage of GDP55 in order to maintain a real rate of exchange that does not erode the competitiveness of the export and tradables sectors and to ensure the sustainability of capital flows over time; ii) adjusting the dynamics of domestic spending to the current-account deficit and to the growth in economic output by means of monetary and fiscal policy; iii) influencing the process of financial integration into international capital markets so that the composition of incoming capital is weighted towards foreign direct investment and other medium- and long-term flows, by imposing reserve requirements and restrictions on volatile or speculative short-term capital.

<sup>53</sup> Without counting on excessive short-term external financing.

<sup>54</sup> For an analysis of fiscal and tax reforms in the region, see ECLAC (1992b), chapter IV, "Strengthening of public finances".

<sup>55</sup> In the case of Chile, for example, a figure between 3% and 4% of GDP has been mentioned.

### Box VII.2

# MEXICO: INTERPRETATIONS OF THE FALL IN PRIVATE SAVINGS

Three theoretical arguments have been advanced to explain the drop in private

savings in Mexico:

i) First, this negative trend coincides with the prevalence of the wealth effect, which suspends the inter-temporal budget constraint and encourages current consumption. The prevalence of the wealth effect is in turn attributable to the strong appreciation of tangible and financial assets in a period where the expansion of personal loans (boosted by the lifting of credit restrictions together with increased capital inflows from abroad) causes expenditure to rise at a foster rate than is compatible with the slow increase in productive activity and

disposable income.

 ii) Secondly, this trend was reinforced by the nature, timing and sequence of a series of commercial, financial and tax reforms which were introduced. The liberalization of imports of consumer durables served to stimulate pent-up private consumption. Financial deregulation made domestic credit more expensive while trade liberalization reduced effective protection, which depressed the profits of firms supplying tradable goods and services (and limited their saving capacity). A lowering of direct taxes on motor vehicles coupled with an increase in tax deductions for vehicle depreciation provided a boost to motor vehicle purchases. Reductions in value-added tax (VAT) and the direct tax burden paid by companies and individuals were implemented using criteria which did not promote savings, since they provided larger increases in disposable income for individuals than for firms and favoured people with low incomes over those in higher income brackets.

iii) Thirdly, the financial measures which were taken to promote saving by the middle-income and low-income groups did not curb the above-mentioned trends. After the National Savings Fund (PAHNAL) was reformed, instruments offering positive

interest rates were issued and the branch network was expanded. In addition, two new savings plans were marketed: the "Cuentahorro", a simple savings account which places no restrictions on withdrawals and deposits; and the "Tandahorro", which entails a commitment to make a monthly deposit equivalent to 3.6 days' pay at the minimum wage, with maturities of one to three years before the principal can be withdrawn. Both schemes provide life insurance and offer the possibility of participating in a lottery with cash prizes. Neither scheme had a sizeable effect on saving, and this is attributable to the fact that effective interest rates were from 30% to 40% below those paid on treasury certificates (CETIS). Under the Retirement Savings System (SAR), the two-monthly contributions made by firms, which are equivalent to 2% of workers base wages, are invested in individual accounts in any bank. These accounts are guaranteed a real minimum interest rate of 2% per annum. Participants are only allowed access to the individual fund when they become eligible for retirement. In addition, there is provision for using 10% of the fund in the event of temporary disability or, under exceptional circumstances, unemployment. In three years of operation, SAR has accumulated funds equivalent to 2% of GDF. (Over the same period, but under different circumstances, the Chilean system had accumulated the equivalent of 6.5% of GDP.) It is not known whether this scheme has replaced other forms of saving. SAR currently suffers from administrative failings related to problems in identifying the individual accounts of workers, particularly those who have changed jobs or lost their employment. In the wake of the financial crisis that occurred in late 1994, the only way of guaranteeing a real return of 2% per annum in the near future will be for the Government to provide a sizeable subsidy.

Source J.C. Moreno B., Flujos de capital externo y crecimiento. La experiencia de la economia mexicana en 1989-1994, Santiago, Chile, International Trade, Development Financing and Transport Division, Economic Commission for Latin America and the Caribbean (ECLAC), 1995, preliminary version.

# B. CREATING A CLIMATE FAVOURABLE TO INVESTMENT

The chief features of a climate favourable to private investment are: a suitable macroeconomic setting; a transparent regulatory framework; a policy of public investment that complements private investment; and a policy of tax incentives.

The first of these elements, macroeconomic equilibrium, is fundamental; hence, the most important task the public sector performs in promoting private investment is to maintain a macroeconomic situation that allows for growth and stability. Temporary success on either of these two fronts is not enough, unless it is backed by healthy trends in macroeconomic fundamentals (low, controlled inflation; indexed financial systems; positive real interest rates in line with capital productivity; a stable and credible real rate of exchange). A number of studies have shown, for example, that stability in these macroeconomic variables is even more important than their level; in other words, the less they fluctuate, the easier it is for interested parties to evaluate the return on investment in each sector. This fact must be taken into account in designing economic policy in order to preserve a sustainable ratio between effective and potential output.

Second, businessmen in Latin America show signs of somewhat conservative behaviour and a marked aversion to risk, a predictable attitude given macroeconomic settings that are still shaky and economic reforms that are still in the process of consolidation. They are moving cautiously in the unexplored territory created by economic reform and are sceptical of new policies, waiting to see whether the policies will last, again an understandable attitude, since capital investment is a long-term commitment and costly to reverse once made. Private investment has thus been slow to respond to recent structural reforms. Nor has investment been stimulated by the policy reversals that have occurred in some countries or the reforms based on inconsistent macroeconomic policies. Hence the crucial importance of harmonizing economic policy and reform and persisting with them over time.

Third, the decline in public investment in the 1980s resulted in a serious deterioration of infrastructure in many countries in sectors in which private investment supplements it and creates positive externalities, as in the case of energy, telecommunications, ports and roads. In order to enhance their competitiveness and continue to promote the export process, these countries will need to undertake major investment projects over the next five years in these areas. Cooperation with the private sector under concession, co-management and joint venture arrangements has proven to be a viable method of co-financing projects and thereby sharing a burden that the State used to assume alone. Examples of such cooperation are increasingly common in Latin America and range from highway construction, in some countries (Mexico) delegated primarily to the private sector, which recovers its investment by charging user fees regulated by the State, to projects financed jointly with or subsidized by the State in cases of multiple externalities (derived from the reduction of pollution, improvement of the environment or elimination of traffic congestion, to name a few).

With respect to the telecommunications and energy sectors, there is consensus on the need to go beyond both the traditional public utility model and the private monopoly model. As the question of privatizing these sectors arises, the relevant national forums are debating such issues as types of regulation that will stimulate and facilitate private competition, clauses and commitments relating to coverage of service, and investment and modernization. The recent process of linking public and private ventures in the health sector in Chile and privatizations in Peru and Bolivia in recent years point in this direction.

Another tool so far little used in the region consists of tax incentives for

business investment. One method tried in other countries has been to shift the tax burden from firms to individuals by exempting from tax the profits reinvested by firms. One example of this strategy is the 1984 Chilean tax reform, which explicitly sought to create tax incentives linked to reinvestment of profits in order to promote saving by firms (see box VII.3).

Another mechanism too little employed is to finance personnel training through a corresponding tax deduction as a way of encouraging investment in human capital. Training programmes, which may take a variety of forms, such as training at specialized institutes or abroad, or agreements between employers' associations and universities, increase labour productivity and improve business competitiveness.

# C. FINANCIAL POLICIES TO BOOST DEVELOPMENT

In Latin America and the Caribbean, real investment by firms tends to exceed their savings, while households normally save considerably more than they invest. Empirical studies in developing countries have shown that in general firms finance about half of their real investment with funds deriving from the financial system and the other half with their own resources (retained earnings and depreciation reserves). Households, on the other hand, tend to save twice the amount of their real investment. Roughly half of their savings, then, are channelled through the intermediation of the financial system into real investment and not into consumption (Honohan and Atiyas, 1989).

The public sector in the countries of the region, on the other hand, averaged a considerable, though decreasing, capital-account deficit between 1980 and 1994, as its real investment exceeded its savings. External savings were an important source of financing to cover the deficit. The financial system again played an important role in attracting and channelling the funds from that source.

Three crucial factors affect the performance of the financial system in capital formation. First, the financial system can only attract savings to the extent that they are available and can only finance investment projects that have already been conceived. Second, obstacles to the movement of funds between economic agents and sectors may result from the absence, imperfection or inadequacy of certain institutions and financial instruments<sup>56</sup> in the credit and capital markets, or from the fact that such institutions and instruments are not sufficiently solvent and efficient in channelling the resources of third parties.<sup>57</sup> Lastly, a stable and predictable macroeconomic environment, with low, controlled inflation, positive but moderate real interest rates, and a realistic, credible exchange rate, favours both saving and investment by economic agents and improves the capacity of the financial system to attract and channel funds into capital formation.

The weight of these factors suggests that financial policy must consider simultaneously all links in the capital formation chain. Such a policy would explicitly create and promote new sources of savings (like those examined in preceding sections); foster vigourous growth in financial institutions and instruments, bearing in mind the externalities, information problems, imperfections and gaps characteristic of the region's credit and capital markets in their current stages of development; and meet the need for financing for special

<sup>56</sup> A lack of profitable, safe and liquid investment instruments may discourage some agents from saving. Similarly, potentially profitable projects may fail for lack of long-term financing instruments.

<sup>57</sup> The solvency of financial institutions refers to their capacity to pay their debts and meet their obligations to third parties on the agreed terms and conditions. The efficiency of financial institutions has to do primarily with two functions: first, their own operating efficiency, reflected in their intermediation margins or transaction costs; second, their allocative efficiency, or capacity to channel funds towards profitable uses.

### Box VII.3

### CHILE: TAXATION INSTRUMENTS WHICH PROMOTE INVESTMENT

The 1984 tax reform entailed the following measures; the marginal tax rate on retained corporate earnings was reduced significantly as compared with the rate levied on distributed profits, the additional tax levied on corporations was abolished, thus equating their tax treatment with that of limited

companies, retained earnings were taxed only at the rate of 10% applicable to the first tax bracket; retained earnings were excluded from the tax base of owners of limited companies, and the tax credit applicable to taxpayers in the first bracket was extended to all business owners.

### Tax rates before and after the 1984 tax reform

(Percentages)

	Corpc	rations	Limited companies		
Taxes on:	Before reform	After reform	Before reform	After reform	
Retained					
earnings	46	10.0	31.5	10.0	
Distributed profits	43.3	31.5	31.5	31.5	

Source: M. Marfán, "Una evaluación de la nueva reforma tributaria", Colección Estudios CIEPLAN, No. 13, Santiago, Chile, June 1994.

Since the reform took effect, business savings have risen from 8% of GDP in 1986 to 16.3% in 1994. Other major factors which have contributed to this result include growth in

output which has averaged more than 6% per annum, rapid financial deepening and a climate of macroeconomic stability and ongoing incentives.

types of investment (including infrastructure, housing, capital investment by firms and the like).

A policy thus conceived would form part of a "financial development" approach that would expand the realm of market logic to the financial system. Attainment of this goal entails at least three factors: i) financial liberalization policies that stress deregulation of interest rates, the exchange rate, credit, the capital account and other financial variables;<sup>58</sup>

Based on a marginal tax rate of 35% on the personal incomes of business owners.

According to the financial liberalization approach, interventions that force basic prices such as interest rates and the exchange rate below their equilibrium levels undermine the return on savings, the accumulation of funds in the financial system, exports and the production of tradable goods and services. Within the financial system, the chief response to such measures is financial "repression": a reduction in the real amount of financial funds and their rates of growth with respect to GDP, an oligopolistic commercial banking system with high transaction costs, minimal capital market presence and a fragmented financial system. Hence the approach attributes great importance to deregulating financial variables (Shaw, 1973).

ii) policies designed to bridge gaps and overcome segmentation of financial markets; and iii) policies concerning regulation and supervision of financial markets.

# 1. Financial liberalization in the region

The figures in table VII-2 suggest that experiments in loosening controls on financial variables have contributed to financial deepening or the accumulation of funds in the region, as reflected in the ratio between M2 (total private sector demand deposits and time deposits in the banking system) and gross domestic product (GDP). Statistical analysis shows that while there is a strong positive correlation between that ratio and the ratio of private saving to GDP, it is of small magnitude (Edwards, 1995). This result tends to support the notion that the accumulation of funds in financial institutions has little impact on savings generation, although it does make it possible to finance investment projects that would otherwise not be carried

There are several considerations that underline the need to implement policies to encourage financial development based on a solid national savings foundation. First of all, the financial deepening that results from relaxing controls on financial variables is not by itself sufficient to overcome the imperfections, segmentation and gaps in the credit and capital markets within the foreseeable future. Hence the need to institute policies expressly designed to supplement and improve these markets. Secondly, the ground rules on how financial institutions operate must be in keeping with the freer environment in which they have to make their decisions, and this means strengthening prudential regulation with respect to solvency and regulation of organizational structure, with a view to developing an efficient and competitive financial "industry".

# 2. Limitations on access to credit and capital markets

Measures designed to deepen the financial system have focused, as one might expect, on the profitable segments of the credit and capital markets. They have facilitated the access of large firms to bank credit at more competitive interest rates; they have also succeeded to some extent in increasing the credit available to small and medium-sized firms. Recent studies on commercial bank credit in seven countries of the region, however, have shown that the smaller the firm the more restricted its access to credit, to the point that micro-enterprises or very small firms are virtually excluded from credit because of the high transaction costs small loans entail and the externalities associated with determination of the firms' credit rating. The data available indicate that the smallest firms suffer credit "rationing"; a large percentage of them are denied access to commercial bank financing even when their projects are profitable and they intend to pay their debts (ECLAC, 1995a).

The high transaction costs on small deposits and savings accounts have led the region's commercial banks to discriminate against the savings of low-income individuals by setting minimum amounts for savings accounts or according them lower rates of interest. Moreover, since individuals typically require their deposits to be fairly liquid (to be available for planned spending and in case of contingencies), the structure of commercial bank liabilities remains predominantly short-term. Even though banks extend or "convert" the maturities on their loans in comparison with the maturities on deposits and savings accounts, the region continues to suffer a considerable shortage of long-term credit to finance capital investment. This situation affects the investment projects even of large firms.

Since the mid-1980s and continuing into the 1990s, stock exchanges in some countries have been offering new, attractive financing alternatives for institutional investors, domestic or

Table VII.2

RATIO M2/GDP

(Percentages)

	1987	1988	1989	1990	1991	1992	1993	1994
Bolivia	11.66	13.68	16.13	5.77	5.71	5.65	5.75	7.02
Colombia	•••	•••	•••	29.29	29.49	30.06	33.62	38.17
Costa Rica		•••		23.69	22.49	24.11	24.87	22.44
Chile	•••	22.45	22.95	23.97	29.16	30.60	30.85	30.63
Guatemala	26.37	25.26	25.65	21.54	22.52	23.62	21.77	22.23
Mexico	31.82	22.40	24.63	26.63	31.11	31.80	32.89	36.31
Paraguay	15.76	14.28	14.10	12.06	12.75	14.76	14.16	15.74
Uruguay		15.12	13.54	12.85	11.23	10.11	10.22	9.22

Source: ECLAC, on the basis of official figures.

foreign, the latter interested in international portfolio investment (ECLAC, 1994a). These "emerging market" financing vehicles chiefly benefit large firms, because of the requirements that a offering of securities entails: formation of an openly held corporation, full disclosure of the firm's financial and asset position, and low transaction costs because securities are issued in large amounts. The transactions costs of issuing securities are prohibitive for smaller firms and in practice prevent their access to securities exchanges. Moreover, the owners of entrepreneurships or partnerships, familyowned businesses or limited companies -and this covers most of the firms in the region- are often unwilling to give up ownership or control by "going public" (Ortiz-Durán, 1994). Mutual or investment funds are one answer to the lack of access of small businessmen to capital investment financing. At present, however, such funds are rather uncommon in the region (ECLAC, 1995e).

# 3. An example: the development of capital markets and pension reform in Chile

The reform of the pension system in Chile, mentioned earlier, took place at the beginning of 1981 and involved other spheres, including the policy of financial development required to sustain the reform. The new pension system generates large amounts of long-term institutional savings based on the mandatory contributions workers make throughout their working life. It was essential, therefore, to put in place a systematic policy expressly designed to deepen the securities and insurance markets and to devise a solid system of prudential supervision and regulation of the pension funds.

By the end of 1994, after 14 years of operation, the new pension system had accumulated funds equivalent to US\$ 22.3 billion at market prices, nearly 44% of GDP. The rapid build-up of the funds and their projected future levels<sup>59</sup> create the challenge of equipping the capital market

<sup>59</sup> By the year 2015, the pension funds should have assets equal to GDP.

with a solid institutional structure that can channel these resources towards profitable uses with limited risk. This is a crucial prerequisite for improving the life insurance industry, redefining the role of regulatory agencies and meeting other needs generated by a rapidly expanding capital market.

The prudential regulation of pension funds and fund management firms is very strict, since they handle workers' mandatory savings, which are intended to provide the principal source of income during the retirement years. Some of the chief prudential rules are the following: the assets of the management firms must be kept completely separate from those of the pension funds, and investments must ensure a minimum return; all instruments and securities must pass strict risk assessment procedures and be classified in low-risk categories; the investment portfolio must meet standards relating to diversification of instruments and issuers and must be constantly valued at market prices, and the instruments and securities that make up the portfolio must be in the safekeeping of the Central Bank (Iglesias and Acuña, 1992) (see box VII.4).

By the end of 1994, 90% of the portfolio investments of the pension funds were in the following four types of instruments: Central Bank securities, 38.%; stock in openly held corporations, 31.7%; mortgage bonds, 13.7%; other bonds, 6.3%. This breakdown suggests that to date there is insufficient linkage between capital market development and long-term financing of real investment, for which pension funds are particularly well-suited. Central Bank securities bear no direct relationship to real investment, nor do stocks, which are acquired in the secondary market, although it is indisputable that in both cases there have been indirect effects that have had a salutary effect on the capital and credit markets by expanding the funds available and increasing macroeconomic stability.

There are now indications that more pension fund assets may be channelled

towards real investment. The extraordinary rise in stock prices between 1986 (when pension funds were authorized to invest) and 199460 offers a powerful incentive for firms to acquire capital by issuing stock. The proportion of assets that pension fund managers are holding in business development investment funds and real estate investment funds is rising rapidly (although from low initial levels). In the near future, infrastructure financing will offer new investment opportunities for pension funds.

# 4. Shortcomings of regulatory systems and financial crises

In order to attract and keep the financial savings of individuals, firms and other investors, banking or financial systems must demonstrate that they are solvent as well as efficient. Their capacity to do so has been undermined by the financial crises experienced by most countries in the region at one time or another from the mid-1970s to the present (Held, 1994), like those that struck the Southern Cone countries early in the 1980s and Venezuela, Mexico, Paraguay and Bolivia more recently. Such crises have demonstrated the importance of prudential regulation and of stabilizing the economy sufficiently prior to financial deregulation (see box VII.5).

The banking crises in the region have in fact occurred in the context of financial deregulation experiments, undertaken for the most part with very inadequate prudential supervision and regulation. Problems such as inadequate control of credit risks, weak supervision and depositor disinterest in bank solvency because the State was explicitly or implicitly guaranteeing their funds, resulted in bank portfolios characterized by a high "credit risk" (in the form of too many unsecured "related" loans, capitalization of interest of high-risk loans and other forms of spurious credit). Moreover, the deregulation often

<sup>60</sup> The real index of stock prices rose from 100 in 1985 to 2,179 in 1993.

	Вох	VII.4							
	CHILE: DEVELOPMENT OF THE INSTITUTIONAL AND REGULATORY FRAMEWORK FOR PENSION FUNDS AND SECURITIES MARKETS <sup>a</sup>								
November 1980	Decree-Law No. 3,500	Establishes private pension system, including private pension funds and the Office of the Superintendent of Private pension funds (SAFP)							
December 1980	Decree-Law No. 3,538	Basic Law of the Office of the Superintendent of Securities (SAFP)							
October 1981	Act No. 18,045	Securities Market Act							
October 1981	Act No. 18,056	Corporations Act							
December 1985	Circular No. 574 issued by the Office of the Superintendent of Securities (SVS)	Defines related persons							
January 1986	svs Circular No. 585	Requires disclosure of information on share transactions by majority shareholders, directos and managers							
March 1986	svs Circular No. 601	Requires disclosure of information on any fact that may significantly affect the business dealings of openly held corporations							
October 1987	Act No. 18,660	Requires classification of openly traded securities, by risk category, on an ongoing basis							
July 1989	Act No. 18,815	Investment Funds Act. Allows pension funds to invest in real estate, securities and risk capital.							
December 1989	Act No. 18,876	Regulates the formation and operation of private entities for the safekeeping of securities							
May 1992	Decision of the Risk Classification Commission	Authorizes private pension funds to invest in projects with no previous risk history							
May 1993	Circular No. 776 issued by the Office of the Superintendent of Private Funds (SAFP)	Requires disclosure of standardized information on the rate of return on individual accounts, classified according to members' income brackets							
1993	Draft legislation	Proposes major changes to legislation on securities markets: -Creates business that issue securities in exchange for financial assets (securitization)Improves risk rating services; -Stipulates responsibilities of bond traders; -Establishes investment funds for business development; -Strengthens measures regulating the solvency of insurance firms; -Relaxes restrictions on investment by private pension funds; -Establishes regulations on risk factors for private pension fund investments abroad							

Source: P. Arrau, "Pondos de pensiones y desarrollo del mercado de capitales en Chile: 1980-1993", Financiamiento del desarrollo series, No. 19 (LC/L.839), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECL.AC), 1994.

<sup>&</sup>lt;sup>4</sup> Excludes amendments to laws and regulations on the activities of banks, financial corporations and the Office of the Superintendent of Banks and Pinancial Institutions.

### Box VII.5

# COSTA RICA: FINANCIAL DEREGULATION AND STRENGTHENING OF PRUDENTIAL REGULATION

Costa Rica implemented a series of stabilization and structural reform policies in 1983, in the wake of a balance-of-payments crisis and a moratorium on its external debt payments in 1981. The financial reform expanded the role of private banks in the allocation of credit and put a stop to the practice of directed credit. In parallel, interest rates were gradually deregulated, in an effort to maintain positive yet moderate real rates and a flexible rate structure, in accordance with the progress made in stabilization and financial reform. Some noteworthy macroeconomic results were obtained. GDP increased at an average rate of 4.3% per annum from 1983 to 1987, while inflation dropped from 33% per annum in 1983 to an average of 15% over the 1984-1987 period.

Interest rates were not deregulated abruptly but in four stages. In the first stage, positive real interest rates were achieved on most financial transactions. In the second stage, the interest rate spread was reduced and rates were linked to a base deposit rate set by the Central Bank, thus giving them greater flexibility. In the third stage, banks were granted considerable autonomy in managing interest rates. They were allowed to set deposit rates within a band around the Central Bank's base rate, while loan rates were subject to restrictions defined in

accordance with a predetermined spread. In the fourth and final stage, banks were given the freedom to negotiate interest rates, except those applying to lines of credit extended to small businesses. This process facilitated an orderly transition from a fixed interest-rate regime characterized by financial repression to a floating one where the Central Bank uses open market operations to regulate monetary aggregates and aggregate expenditure.

At the same time, a series of prudential regulation measures were applied to the banking sector. Chief among these were the measurement of credit risk in bank portfolios and stricter regulations with respect to reserve funds (these would need to be fulfilled within a set period). However, the reform also gave rise to "free" financial companies which were not subject to prudential regulation. Such companies multiplied quickly and positioned themselves in the riskiest segments of the market, charging high real interest rates. In 1987, however, the implementation of a contractionary monetary policy resulted in severe liquidity problems for the financial system and caused all of the unregulated financial companies to go bankrupt. It is worth pointing out that not one bank subject to prudential regulation became insolvent during that crisis.

Source: R. Diaz, "Regulación y supervisión de la solvencia bancaria en Costa Rica", Regulación y supervisión de la banca-Experiencias de América Latina y el Caribe, G. Held and R. Szalachman (eds.), Santiago, Chile, S.R.V. Impresos, 1991.

occurred in the midst of strenuous stabilization and adjustment programmes, which tended to raise real interest rates and often resulted in an excessive drop in the real exchange rate (due to its use as a stabilization tool and to the large influx of external capital). Hence, during a number of these financial crises, the misalignment of basic macroeconomic prices and wide

fluctuations in the pace of economic activity added a strong element of systemic risk to the banks' portfolios.

Financial deepening has widened the range of financial services beyond the traditional commercial bank functions of making loans and taking deposits. Among the new services are the management of funds on behalf of third parties, including pension funds, investment funds of

various kinds, casualty, property and life insurance and foreign currency transactions, among others. These new developments have raised complex questions concerning prudential regulation and the structure needed to create an efficient and solvent financial industry. Mexico, Brazil and some other countries have introduced regulations concerning the establishment of financial conglomerates founded around on a multiple-purpose bank or commercial bank and offering a broad range of services. In some countries of the region, policy lags in this area have allowed unregulated financial conglomerates to form around a controlling interest in banks and other financial institutions. Conglomerates such as these played a major role in the financial crisis in Venezuela in 1994.

# 5. An example: financial liberalization and external capital volatility in Mexico

The heavy influx of external financial capital between 1991 and 1994 and the abrupt drop in flows in 1995 caused adverse macroeconomic effects in Mexico. In the first phase, the abundant flows caused extensive substitution of external saving for national saving, a sharp decline in the real rate of exchange and an

increasingly unsustainable currentaccount deficit. The sudden interruption in flows necessitated a strenuous policy of stabilization and adjustment.

These macroeconomic effects underline the wisdom of having prudential financial regulations that limit the entry of volatile and speculative external financial capital. Arguments in favour of capital controls are based on the existence of "over-incentives" to inflows of financial capital and on the risk of a potential external debt problem when there is rapid accumulation of external debt paper, with a consequent increase in domestic interest rates in an attempt to attract and hold funds within the domestic financial system. In the case of Mexico, the "over-incentive" was the State's guarantee of public securities (treasury certificates, treasury bonds and the like) and the transitory nature of the sharp drop in short-term interest rates in the United States between 1991 and 1993 and the undervaluation of Mexico's stock market assets. Under such conditions, controls on the influx of volatile financial capital of a speculative nature would not only make it possible to prevent unfavourable macroeconomic situations, but would leave more room for external flows of highly desirable medium- and long-term capital associated with real investment (see table VII-3).

# Table VII.3 MEXICO: MACROECONOMIC INDICATORS LINKED TO NATIONAL SAVING

	5	ources	of saving	gs	Exte	ernal lia	bilities	Rel	lative pr	ices	Consur	nption	Cre	dit	
	PUB	PRIV	NAT	EXT	FDI	PORT	CRED	RER 1	RER 2	STOCK EXCH	IMP	Total		vate tor	GDP
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1987	7.0	15.3	22.3	-3.1				137.8	158.5	22.3		65.9	7.0	8.6	1.9
1988	1.4	18.3	19.7	1.4	487.2	169.1	-556.3	107.9	124.1	43.2	2.1	68.8	7.2	8.3	1.2
1989	3.1	16.3	19.4	2.8	73.1	8.1	18.8	99.5	104.6	73.2	3.2	69.6	11.0	12.8	3.3
1990	6.6	13.2	19.8	3.0	15.6	20.0	64.4	100.0	100.0	100.0	4.2	70.0	14.8	17.8	4.4
1991	7.4	10.9	18.3	5.1	18.4	49.1	32.5	90.2	91.0	218.2	4.9	70.8	19.5	23.8	3.6
1992	6.6	10.4	17.0	7.4	20.9	85.8	-6.7	84.6	82.5	264.2	6.1	71.1	25.6	31.6	2.8
1993	5.0	11.8	16.8	6.3	14.0	81.3	4.7	79.1	83.0	392.1	6.0	70.3	31.5	38.3	0.6
1994	3.7	12.1	15.8	7.7	46.9	48.1	5.0	83.9	89.6	208.6	6.8	70.0	36.0	43.8	3.5

Source: J.C. Moreno B., Flujos de capital externo y crecimiento. La experiencia de la economía mexicana en 1989-1994, Santiago, Chile, International Trade, Finance and Transport Division, Economic Commission for Latin America and the Caribbean (ECLAC), 1995, preliminary version.

- (1) Public saving as a percentage of GDP at current prices (Bank of Mexico, National Institute of Statistics, Geography and Informatics (INEGI), and the Ministry of Finance and Public Credit). Operational approach.
- (2) Private saving as a percentage of GDP at current prices (Bank of Mexico, INEGI, Ministry of Finance and Public Credit). Operational approach.
- (3) National saving as a percentage of GDP at current prices (1) + (2).
- (4) External saving as a percentage of GDP at current prices (Bank of Mexico, INEGI, Ministry of Finance and Public Credit). Operational approach. Equivalent to negative current-account balance.
- (5) Foreign direct investment as a percentage of total liabilities (Bank of Mexico).
- (6) Portfolio investment as a percentage of total liabilities (Bank of Mexico).
- (7) Loans and deposits as a percentage of total liabilities (Bank of Mexico).
- (8) Real exchange rate based on the weighted trend in consumer prices for a basket of 133 countries (Bank of Mexico).
- (9) Real exchange rate based on the unit labour cost in manufacturing in Mexico's eight main trading partners (Bank of Mexico).
- (10) Index of securities prices on the Mexican Stock Exchange (developed on the basis of data supplied by the Bank of Mexico).
- (11) Consumption of imported goods (durables and non-durables) (INEGI).
- (12) Private consumption as a proportion of GDP at current prices (developed on the basis of data supplied by the Bank of Mexico, INEGI and the Ministry of Finance and Public Credit).
- (13) Average annual balances of total net domestic financing by commercial banks to private firms and individuals (balances as a percentage of GDP at current prices).
- (14) Average annual balances of total net domestic financing by commercial banks to private firms and individuals (balances as a percentage of disposable national income at current prices).
- (15) Growth rate of GDP (Bank of Mexico, INEGI, Ministry of Finance and Public Credit).

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