

C E P A L

REVIEW



UNITED NATIONS

30

# CEPAL Review

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#### Notes and explanation of symbols

The following symbols are used in tables in the *Review*:

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

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

A blank space in a table means that the item in question is not applicable.

A minus sign (-) indicates a deficit or decrease, unless otherwise specified.

A point (.) is used to indicate decimals.

A slash (/) indicates a crop year or fiscal year, e.g., 1970/1971.

Use of a hyphen (-) between years, eg., 1971-1973, indicates reference to the complete number of calendar years involved, including the beginning and end years.

Reference to "tons" mean metric tons, and to "dollars", United States dollars, unless otherwise stated.

Unless otherwise stated, references to annual rates of growth or variation signify compound annual rates.

Individual figures and percentages in tables do not necessarily add up to corresponding totals, because of rounding.

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# C E P A L

## Review

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# Reactivation and development: the great commitment of Latin America and the Caribbean

*Norberto González, Executive Secretary of ECLAC*

## I

### The economic crisis: its evolution and the future outlook

From the viewpoint of economic development, the first half of the 1980s has been lost for most of the countries of Latin America and the Caribbean. Unfortunately, if the present economic and social conditions persist, many of them will also have to lose the second half, for the declines registered in the last five years in per capita income are so marked that it will be difficult for the region to recover by 1990 the level which it had already reached in 1980. Consequently, as matters stand it is imperative to promote first of all the recovery and then the sustained growth of the economies. This calls for the application of suitable domestic policies, the existence of a favourable external environment, and active international and regional co-operation.

#### *1. The origin and consequences of the crisis*

The stagnation and regression which began in 1981 took place after a long period of growth and change in the economies and societies of Latin America. During the period between the end of the Second World War and the end of the last decade, many countries made considerable progress in industrialization, modernized important parts of the agricultural sector, made significant changes in the structure of their external relations, underwent a marked process of urbanization, and witnessed the growth of broad intermediate strata. Of course the nature and pace of these changes have been uneven, not only between the different countries of the region, but also within individual countries, and big differences have persisted as regards productivity within each sector, while underemployment of labour continues unabated and large sectors of the population continue to subsist in conditions of extreme poverty.

Thus, the present crisis has interrupted the progress that was being made and has intensified the existing contrasts, adversely affecting the countries in both economic and social matters and in their capacity to manage their economies in a more autonomous manner.

As regards the economy, the per capita product for the region as a whole was 9% lower in 1985 than in 1980, while capital formation fell even more sharply, as is shown by the drop in the investment coefficient from 26% in 1980 to only 16% in 1985. Furthermore, because of the decline in domestic expenditure, a substantial amount of installed capacity is underutilized in many branches of production.

At the social level, unemployment and underemployment have grown in most of the countries, affecting all categories of the labour force, but especially young people and women. At the same time, real wages have gone down and poverty has become more widespread and acute. Although the crisis has affected the poorest sectors with particular severity, the intermediate strata have also suffered its impact.

The economies have become more vulnerable to external events which are beyond the control of the countries of the region. The leeway for economic policy action has been considerably narrowed by balance-of-payments difficulties and by the pressure of inflationary processes which have become more widespread and acute and have in many countries attained unprecedented levels of intensity.

At the same time, the capacity of the public sector to take care of the needs of marginal sectors and to engage in social and development expenditure has been seriously limited. These limitations are due to the drop in public revenue caused by the reduction in economic activity and the addition of a new function to the State's many existing responsibilities: that of servicing the external debt. In more than a few cases this involves debt contracted not only by the public sector but also that originally taken out by the private sector.

A situation is thus taking shape which can potentially give rise to growing tensions that can affect social and political stability and, in particular, can have adverse effects on the consolidation of democracy in the region.

Although the crisis has undeniable conjunctural aspects, it is obvious that it also has structural features and that its consequences are likely to be of long duration. Thus, if present trends continue, a significant part of public revenue, national saving and export income will need to be devoted for a number of years to paying the debt service instead of taking care of economic and social development needs. Moreover, the low investment registered thus far in the 1980s will tend to reduce both the growth rate and the modernization of production capacity. This, in turn, would seriously affect the possibility of adapting the structure of production to the rapid technological innovations which are taking place in the developed world and it would limit the future capacity of our economies to compete globally. Those countries which have a more diversified and efficient structure of production and technology will find it easier to export the fastest-growing product lines on international markets.

## *2. Alternative economic development projections*

What are the future implications likely to be if there is a continuation of both the current international tendencies and the way in which the domestic adjustment has been carried out so far?

In order to answer this question, it is worth looking at the external financing that would be needed to recover by 1990 the per capita product which the countries of the region registered back in 1980: a very modest goal, of course, since it would mean that from the point of view of development and well-being a whole decade would have been lost. In this event, all that would be done in the rest of this decade would be to provide the bases for more dynamic growth in the 1990s, so that it would be possible to double the region's product by the end of the century.

With regard to the present decade, it would appear that this objective could be reached in some countries, but would be difficult to attain in others, especially the smallest ones. For the region as a whole, assuming that the real price of oil stabilized at around US\$ 17 per barrel, the achievement of this goal would call for average external financing approximately equal to the net annual external payments of profits and interest made during 1983-1985. In fact, however, during that period the region's net external financing amounted to only one-sixth of that figure. In this respect it is worth emphasizing that the fall in oil prices has considerably increased the amount of external financing required, since the region as a whole is a net oil exporter. Clearly, however, the effect of this drop in oil prices differs as between different countries.

The achievement of such a modest objective would also call for a substantial increase in national saving and investment, both of which would have to increase sharply with respect to the product.

Even if this growth target were reached, the present situation as regards unemployment and poverty would continue deteriorating, for a high proportion of those entering the labour force between now and 1990 would not find productive employment.

This would be reflected in an increase in open unemployment, underemployment and marginal activities, and a deterioration in the living conditions of the population. It is easy to appreciate how dangerous this would be for the social and political stability of our countries.

Such an unfavourable scenario is not necessarily inevitable, however, for the possibilities of overcoming the problems would be much more favourable if, together with an improvement in domestic policies, there were a reduction in protectionism in the developed countries, a decline in interest payments, or an improvement in the terms of trade of the region.

In order to illustrate the incidence of these latter factors, two hypothetical examples may be considered. The first concerns the real rates of interest paid by the region: if these declined by two percentage points and thus drew close to the level registered on the second half of the 1970s, the net external financing requirements mentioned earlier would be reduced by 25%. The second concerns the terms of trade. If by 1990 commodity prices regained only half of the deterioration suffered in the first half of the present decade, the net external financing needs of the region would be reduced by about one-third. This calculation excludes petroleum, whose uncertain future makes necessary an assumption such as that mentioned earlier.

These figures, although purely illustrative, highlight the importance of international co-operation for tackling and overcoming the challenge of the crisis and the external debt.

I should like to emphasize a conclusion which emerges from the foregoing. The origin and development of the present crisis have been affected by both short and long-term elements of an external and a domestic nature. In effect, the debt and financial problems are inextricably linked with more profound structural aspects. At the international level, fundamental changes are taking place in the structure of demand, in technology and in the productive systems of the developed countries, while modifications have also taken place in the rules governing international trade and finance. Taken together, these changes have accentuated the asymmetrical nature of the external relations of Latin America and the Caribbean. At the same time, at the domestic level, it is necessary to acknowledge the sluggish development of certain sectors, the inability to give productive employment to the labour force, and the persistent inequalities in income distribution and indeed in economic and social opportunities generally.

The projections examined above show that —unless there are favourable changes in international and regional co-operation, in the adjustment process, and in domestic policies— the recession will last for a long time in many countries of the region, thus widening the gap traditionally separating Latin America and the Caribbean from the industrialized economies as well as the more recent gap between the region and certain economies of the Third World which have displayed great dynamism.

## II

### Towards reactivation and development

In the years to come, the countries of Latin America and the Caribbean will face the challenge of combining the immediate objective of economic reactivation with other short, medium and long-term goals. They will have to prepare their economies to compete internationally while simultaneously overcoming domestic structural problems which have stubbornly resisted the solutions applied so far.

At the same time, it will be necessary to apply adjustment and inflation-control policies, which will continue to be vital.

It is important to avoid an excessively sharp distinction between the short and the medium and long terms which causes the objectives of the orderly functioning of the economy (such as the maintenance of macroeconomic balance) to appear to conflict with those of the development and transformation of economies and societies. The fact is that all these objectives must be sought simultaneously, although the need and the possibility for doing this may vary from one country to another and may even vary within a single country over time. Consequently, the relative emphasis placed on each of these objectives must be gradually adapted to the specific features of each case. Indeed, if the countries waited for the end of the crisis before concerning themselves with structural problems related to changes in the world economy and to their own domestic shortcomings and imbalances, they would run the risk of losing even more ground internationally and, at the domestic

level, suffering an aggravation of their economic and social conditions which would undermine their future development possibilities.

### 1. *Adjustment, stabilization and reactivation*

For the reasons already noted, the reactivation must not be delayed. If it is to be carried out in a manner compatible with adjustment and stabilization, however, it will be necessary to review the orientation and content of the policies with which these problems have been tackled so far. This means reconsidering the approach that has been taken to the debt problem, as well as the way domestic policies and international and regional co-operation have been operating.

#### a) *Towards a new approach to the debt*

The external debt lies at the very centre of the present crisis. It may be recalled firstly that in Latin America and the Caribbean as a whole the interest payments on the debt currently absorb no less than 36% of total exports, and secondly that between 1982 and 1985 the region transferred US\$ 106 billion, abroad: a sum equivalent to over a quarter of the total external debt.

The enormous economic cost represented by the debt service can seriously compromise the economic, social and political stability of the countries. Consequently, in dealing with the debt problem it must be borne in mind that it is not just of a financial or economic nature. For this reason, many countries of the region, and especially those comprising the Cartagena Consensus, have stressed the urgent need to restore growth in the Latin American economies and have put forward concrete emergency ideas for avoiding a further deterioration of the present situation. The truth is that if development is subordinated to debt servicing requirements, the consolidation of democracy in the region will be jeopardized.

Tackling the debt problem calls for a dialogue among the four groups of agents involved: the governments of the debtor countries, the international private banks, the international financing agencies, and the governments of the creditor countries.

Moreover, in the dialogue and related international negotiations, the debt must be linked with other financial and trade aspects, since otherwise the asymmetrical nature of the adjustment causes its burden to fall entirely on the debtors, thus increasing its recessive impact.

The adjustment policies applied so far by many countries of the region sought to generate the necessary trade surpluses to pay the debt interest through export growth and import substitution. In seeking this, however, they faced an extremely unfavourable external environment. Because of this and of the short time in which they had to make the adjustment, those trade surpluses were obtained mainly through a very severe contraction in imports. This, in turn, caused a decline in domestic economic activity and led to higher unemployment and the underutilization of productive capacity.

Undoubtedly there have been some positive developments in the debt renegotiations, in the sense that commissions and spreads have been reduced, the amounts renegotiated have been increased, and the repayment periods have been extended. Furthermore, it is true that nominal international interest rates have gone down.

However, these changes, though favourable, have not been sufficient to give grounds for expecting that the Latin American and Caribbean economies will perform satisfactorily in the next few years. Thus, in 1985 the unfavourable impact of the drop in export prices reduced the export income of the region by US\$ 4 billion, while the decline in international interest rates had a favourable impact of only US\$ 1 billion.

Moreover, up to now the justification of the adjustment process advocated by the creditors has been based on the assumption that this process would be of relatively short duration, since the recovery of the international economy would spontaneously engender a more dynamic growth of Latin American exports, and hence a more rapid economic revival of the region. It was therefore presumed that the effort required would also only be of short duration.

These assumptions must be reviewed both in the light of the experience of the last few years and the current situation. Although a recovery of the developed economies may be expected in the near

future, if it does take place it will probably be only moderate. Moreover, the side effects on the Latin American and Caribbean economies will be quite small: firstly, because a high proportion of the region's exports are made up of primary commodities for which demand is flagging; secondly, because of the obstacles encountered by the exports of the region in gaining access to the markets of the developed countries; and thirdly, because of the difficulties in financing trade. Thus, the growth experienced by the OECD economies in 1985 did not prevent the value of Latin American exports from falling by 6%, or the terms of trade from declining almost 3% compared with the previous year.

If the spontaneous recovery does not operate effectively, and if it will need an extended period to materialize, the approach to the adjustment process and to international co-operation will have to be changed. Recessive adjustment cannot become a permanent feature of the Latin American economies nor a way of life for the peoples of the region. Indeed, the increase in social tension that has already begun to become evident in several countries as a result of recessive adjustment policies proves that such policies cannot be insisted on for long without jeopardizing both the future development of the nations and their social and political stability.

#### b) *Selective economic adjustment and stabilization policies*

The experience of a number of countries of the region shows how important it is for domestic policies to be based on realistic approaches and flexible conceptual models. Just as in the past there were cases of excessive protectionism and State intervention, so in recent years some countries have applied neo-liberal systems which have had a negative impact on productive capacity and export diversification and have accentuated existing economic and social inequalities. In this respect, it should be recalled that the real proof of the usefulness of economic theories depends on how accurately they interpret the situation of each country and the contribution they make to the formulation of suitable economic policies.

Although obtaining and preserving macroeconomic balances will obviously continue to be very important for both adjustment and handling inflation, it is nevertheless clear that such balances must be made compatible with the goals of reactivation and development. To such ends, there should be an adequate degree of selectivity in economic policy. For example, if there is excessive overall demand, not all expenditure components need be cut back to the same extent. Non-essential or low-priority consumption can be strongly discouraged, while steps are taken to maintain or even increase expenditure geared to generating employment, improving the standard of living of the poorest groups, increasing investment in productive sectors, and ensuring that export promotion and import substitution policies are sustained or expanded.

Policy selectivity can also take the form of special programmes to promote these objectives. Several Latin American and Caribbean countries have recently been executing programmes to generate productive employment which requires fewer imported inputs, to alleviate poverty, to increase export capacity, and to help exports to compete more successfully in international markets.

An appraisal of these experiences could serve to strengthen them and make them more effective. In order to do this, I think it would be very useful to discuss the social impact of the crisis and ways of responding to this challenge, in order to facilitate an exchange of experiences and ideas about the social policies which are being applied or could be applied in this field.

Similarly, consideration should be given to stabilization policies, in order to determine how they could distribute the effort more equitably and to make them compatible with reactivation and growth. Recent experiences in stabilization in some countries of the region, which are somewhat different from the traditional orthodox methods, have brought some degree of creativity to this field.

#### c) *International co-operation*

It is imperative to achieve the kind of international co-operation in both trade and finance that will make it possible to reduce the debt-servicing burden, so as to lessen the corresponding sacrifice

of consumption and investment. Without this kind of co-operation, however well designed and applied domestic policies may be they will not be nearly enough.

In the area of trade, protectionism must be reduced so that Latin American exports can have easier access to the developed countries' markets. A recovery in the terms of trade and, in particular, of commodity prices depends basically on whether the policies of the developed countries achieve a faster recovery and more dynamic and sustained growth of their economies.

International financial co-operation, for its part, can reduce the need to restrict imports, since such co-operation makes it possible to reduce the transfer of real resources abroad for debt-servicing. Indeed, if real international interest rates declined to a point close to their historical levels, this would greatly reduce the debt-servicing burden.

However, interest payments do not depend solely on the evolution of international interest rates. Both within and outside the region, various ideas have been put forward regarding the terms that could be agreed between creditors and debtors for debt-servicing, in order to reduce the burden in this respect.

Some of these proposed strategies call for debt-servicing payments to be limited in line with certain criteria of the debtor's capacity to make them. Other proposals have been put forward which involve reducing the debt principal or interest rates.

Another important aspect of international financial co-operation is connected with the volume and terms of the international capital flows to Latin America and the Caribbean, which are directly linked with the question of conditionality. There is no denying that the countries of the region need to maintain a level of discipline which will enable them to grow, to come to grips with the problem of the debt, and to keep inflation under control. The ways of ensuring this discipline, however, must take account of the special features and potential of each country and the need to preserve the autonomy of each government in managing its economic policies and determining the direction and pace of its economic and social development.

This explains the concern in the region today over some proposals which would not only signify that short-term conditionality would not be adapted to development needs, but additionally would introduce new criteria for long-term conditionality and would therefore lead to the widespread application of both types of conditionality to all external sources of financing. The application of more stringent conditionality in respect of the use of insufficient resources could cause the problems of access to those scarce resources to deepen the crisis instead of helping to resolve it.

The initiative proposed late in 1985 by the United States Secretary of the Treasury represents a positive step, since it recognizes the need for deliberate action by governments of the creditor countries and the international private banks to place the debt problem squarely in the context of economic growth of the debtor countries. However, the amounts announced are clearly inadequate, since they would make it possible to finance only a quarter of the interest being paid by the debtor countries covered by the initiative. Moreover, the proposal includes the application to all sources of financing of a kind of conditionality which is not yet fully defined. The form of this conditionality can affect both the growth rate of the debtor countries and the autonomy of their governments to determine their development strategies and economic policies.

#### d) *Regional co-operation*

With regard to regional co-operation, it is paradoxical that intra-regional trade has declined as a proportion of total trade just when its growth is most needed. As there is underutilized production capacity in virtually every country of the region, a balanced increase in regional trade would help to reactivate the economies despite the balance-of-payments constraints.

In recent years, the forms of technological, production and trade co-operation among enterprises from different countries of Latin America and the Caribbean have multiplied. The ECLAC secretariat is helping to extend and deepen these new forms of co-operation, and to this end it has worked closely with governments, the private sector and public enterprises.

In the final analysis, regional co-operation depends on the will of the countries of Latin America and the Caribbean, because the region already has the institutions and experience which can serve as valuable instruments for efforts of this kind aimed at strengthening regional co-operation and seeking a dynamic source of growth within the region itself. The crisis makes it more urgent than ever to give a strong impetus to regional co-operation. In the present economic situation, effective measures must be taken to strengthen the links between our economies and to make use of the rich potential that the regional market offers. Integration, as I said before, would not only help to reactivate our economies but would also be an instrument for improving their efficiency, increasing the bargaining power of the region, and securing a better place in the international economy. In this connection, the ALADI round of negotiations provides a practical opportunity to give regional co-operation a shot in the arm and thereby increase trade as a means of contributing to reactivation.

## *2. Development strategies*

Domestic medium and long-term development strategies must also be adapted to meet the challenges which will be faced by the countries of the region in the coming years. For the present, I shall focus attention on a few objectives which are of course not the only ones, but which seem to me the most important.

It is necessary to prepare the economies so that they will be more competitive in international markets and can increase the productive absorption of manpower; changes must also be made in the production structure so that it can respond creatively to the changes in the world economy. At the same time, there should be a more equitable distribution of the fruits of development and of economic opportunities, as well as greater participation of all sectors in economic and social decisions.

In order to achieve these goals, in addition to the international and regional co-operation to which I already referred there must also be a well-organized internal effort.

### *a) More austere development*

International financial flows will undoubtedly be very limited, and this, added to the debt interest payments, makes it unlikely that the region can expect a major net resource contribution from abroad. Development will therefore depend primarily on domestic efforts, which thus assume decisive importance, although of course adequate international co-operation will still be required to complement them.

One basic requirement will undoubtedly be a substantial increase in savings and investment. It is not only the expansion of productive capacity which depends on this, but also its modernization, which in turn is an essential prerequisite for competing in international markets. If such expansion is to be achieved, the consumption patterns of the middle and upper income levels cannot continue to imitate slavishly those of the developed countries, particularly in the case of items with a high direct or indirect imported content. In the environment of intensive intercommunication which now prevails it would be neither possible nor desirable to cut ourselves off from the evolution of world consumption patterns, but suitable policies can be applied to discourage non-essential consumption and to stimulate and mobilize savings.

The reduction of defence spending, which in some countries attains a high proportion of the national income and the fiscal budget, would free resources for increasing saving and taking care of essential social needs.

The channelling of investment is also a matter of high priority. In this respect, it is very important for many countries of the region to reconstruct and discipline their domestic financial systems so as to make them more efficient and to ensure that they channel the funds in line with economic and social priorities of general interest. Financial intermediation must be functionally suited to the requirements of productive activity, and there must not be any encouragement of

consumption of low social priority. It is also very important to limit the flight of capital and to secure the return of funds which have already left the country.

b) *Better articulation of the production sectors*

Industrial, agricultural and mining strategies should also be reviewed. In developing these sectors, selective advantage should be taken of the opportunities offered by the national, regional and international markets.

Industrialization should play a leading role in the future development of the region. The vulnerability and the limited options currently affecting economies which rely primarily on raw material exports show the importance of diversifying the structure of production and of exports by increasing the production of manufactures. Policies aimed at promoting and orienting industrialization, which have been essential in the past, are even more important at this stage. But they must also be brought up to date in order that they may bring about those changes in the structure of production which are necessary to achieve a dynamic insertion of the Latin American and Caribbean economies into the world economy.

In this regard, it may be recalled that the region's comparative advantages as regards labour-intensive and natural-resource-intensive production processes are being eroded by the introduction of new technologies in the developed countries which often reduce the advantage of having low-cost labour. In order to identify those sectors and processes in which the region can still create advantages, the direction and intensity of such technological changes must be assessed accurately, so that production and export efforts may be concentrated on those activities which have the best prospects and so that decisions can be taken on the measures that should be adopted to permit domestic industries to respond adequately to the new situation and to create a more diversified and dynamic export structure.

In today's increasingly interdependent and competitive world, innovative capacity is an essential requisite for competitiveness. In this regard, our region has a long way to go, for in the past, despite certain very commendable efforts, it has been predominantly dependent for its technology on the exterior. Innovation is not something which only concerns those firms interested in exporting. Rather, society as a whole must be aware of the importance of innovation and, to this end, it must give due attention to the qualitative content of education. In order for innovation and efficiency to be promoted, there must also be a more explicit articulation between policies regarding technology and those pertaining to production and suitable institutional arrangements must be developed so that efforts in the area of technology can be concentrated on objectives that will enhance the competitiveness both of exports and of import-substitution industries.

Another fundamental question is that of employment. As already pointed out, various sectors of production have not acted very effectively as far as the productive use of labour is concerned.

As regards industry, greater support should be given to small and medium-sized enterprises and suitable forms of subcontracting should be identified and disseminated in order to strengthen the articulation of these firms with large corporations, since this would enhance their development and create more jobs in competitive activities. Some countries in other regions have done this and it has also become the trend recently in the developed countries, which in many cases now favour production by smaller companies.

With respect to agriculture, I would like to stress two points, namely the approach to be taken as regards technology for the development of that sector, and the problems of peasant agriculture. As regards the first point, the approach until now has often been to promote the use of capital-intensive labour-saving technologies rather than technologies which would make it possible to increase yields per hectare. In modern agriculture, mechanization is an irreversible phenomenon, and it is also necessary in order to increase overall agricultural production. Nevertheless, if greater attention were given to increasing the use of agricultural inputs which do not require much capital (such as biological and chemical inputs) and use were made of more advanced methods of cultivation it would be possible to increase total production, both for domestic consumption and for export. As regards

the second point, I feel it is very important to pay greater attention to the specific problems of peasant agriculture, where a very high proportion of underemployment, rural marginality and poverty is to be found. In addition, the relationship between the development of manufacturing and that of agriculture and mining must be strengthened. In this connection the increased industrial processing of commodities offers a promising potential for domestic growth and job creation which should be tapped. Moreover, increased processing would also make it possible to diversify exports and to achieve the flexibility required in a world where the demand for unprocessed commodities is sluggish and where protectionist trends prevail in many industrialized economies.

c) *The State and the market*

The State and the market are often viewed as having antagonistic roles. In my opinion, however, this is an over-simplified view which can lead to erroneous conclusions and policies.

There can be no doubt that the market has a very important role to play. The vigour of private enterprise and its search for efficiency and for new growth opportunities should be used to the full, and to this end unnecessary obstacles to its operation should be avoided. It is equally clear, however, that the State and public enterprises will have a very important role to play over the next few years. Both the world economy and that of Latin America and the Caribbean are going through a period of transition and it is important to introduce certain structural reforms in our production system. This means that the State, jointly with the private sector, must support the structure of production and guide efforts aimed at increasing efficiency and innovative capacity and facilitating the penetration of new external markets. It is also clear that the State has an important role to play in social development and, in general, in promoting an equitable distribution of the fruits of economic growth. It has a decisive part to play in the search for an adequate balance between social and private values.

d) *Social development in the context of participative and democratic societies*

Despite the social changes which have gone hand in hand with economic development, extremely important lags persist which have led the governments of Latin America and the Caribbean at previous ECLAC meetings to describe the societies of our region as inequitable. There are, indeed, great differences as regards income, living standards and opportunities. Two clear manifestations of this phenomenon are underemployment and the critical poverty which affects more than one-third of the population. Under such circumstances, continued efforts to achieve greater equity are essential.

As regards the adjustment and stabilization processes, a fairer distribution of efforts and benefits is important not only for ethical reasons but also because it is essential in order to create the consensus required to ensure that such efforts can be maintained over a long period of time. The ability of our governments to lead our countries through these periods of uncertainty and change will depend to a large extent on their ability to maintain this consensus. In this regard, it should be pointed out that the recovery of democracy is compatible with moderate economic growth (such as that which, for the reasons mentioned earlier, the region can be expected to register over the next few years), provided that the political actors representing the social majorities are participants in a sound and prolonged national effort. Development strategies, for their part, must be designed so that the achievement of greater equity is made an indissoluble element of the functioning of the productive and social system.

If these conditions are attained, the consolidation of democratic processes in the region and the progress towards greater economic, social and political participation can make a decisive contribution towards the attainment of a more dynamic and just form of development.

The future of our region depends on our being able to make a considerable internal effort and to concentrate and organize that effort in such a way as to enable us to achieve the great objectives of economic and social development. We must combine imagination and realism if we are to turn the challenges arising from the crisis into opportunities and to lay the foundations for a new stage of

dynamic and just development. Nevertheless, as I have already pointed out, this internal effort will not be enough unless it is accompanied by adequate international co-operation and unless an impetus is given to regional co-operation.

The year 1988 will mark the fortieth anniversary of the creation of ECLAC. I feel that, rather than seeing this as an occasion for celebration, we must see it as an opportunity for reflection. Our institution has a long-standing tradition of thought linked to action. We are at the service of member governments for examining the problems of the region and assessing which policies can best lead to their solution. In order to carry out this task responsibly and objectively, we need to conduct studies that will enable us to interpret the situation accurately and examine the advantages and limitations of alternative policies. As I have already said, in this work we must keep constantly in touch with governments, with the main actors of society, with the private and labour sectors, and with academic circles whose influence has been growing in all the countries. The secretariat can play a useful role in promoting an exchange of experiences among the countries of the region, as well as critically examining proposals and ideas originating outside it so that we can take up those points which seem useful, without making the mistake of applying them mechanically.

During the past year, we have done a great deal of thinking and have tried to analyse the crisis from a longer-term perspective, seeking to identify both the most effective ways to overcome it and the most suitable strategies for responding to the challenges of the future. The results of our reflections were considered by member governments at the session of the ECLAC Committee of the Whole held in Buenos Aires in August 1985.

We shall continue striving to serve all the countries of the region through this work of identifying, analysing and evaluating the problems which hinder our economic and social development. These problems face us today within the framework of an increasingly complex situation, in which the region is highly vulnerable and the selection of strategies and the application of effective policies has become a matter of extreme urgency, in view of the deterioration and the seriousness of the economic and social conditions affecting vast sectors of our populations. We shall persist in our undertaking with determination, and will intensify still further our contacts with the governments of the region as well as with the various economic and social sectors which take part in the development process.

## Relieving the debt burden: past experience and present needs

*Carlos Massad\**

The rapid growth of the Latin American external debt from the mid-1970s onwards has been due to factors both of demand and supply, which bear witness to the co-responsibility of creditors and debtors. This co-responsibility, however, is not reflected in the distribution between the two parties of the burden of the debt: a situation which has caused a change not only in the magnitude but also in the direction of the net flows of real resources between the region and the rest of the world. Thus, between 1960 and 1980 the countries of the region were recipients of an annual net transfer of real resources from abroad equal to around 1% of their gross domestic product, but since the first half of the 1980s these countries have contributed to the rest of the world close on 4% of their gross domestic product per year. Although the figures vary from country to country, the general trend is the same for all.

Despite this heavy transfer of real resources to the exterior, the foreign debt problem does not seem to be on the way to a solution. The debt continues to increase, albeit slowly, while exports, and also the product, remain relatively stagnant after having plummeted in 1982/1983, partly because of the countries' own efforts to adjust in order to comply with their external commitments in a context of world economic recession and shrinkage of the international financial markets.

The author divides the article into four sections. In the first he examines the debt servicing burden, comparing the experience of the 1930s with the 1980s, and presents a simulation model which enables different evolutions of this servicing and its effects to be assessed. He then describes the options for solution and the concrete proposals that have been formulated, and ends with some considerations on the role played by the international monetary and financial system.

\*Co-ordinator of the ECLAC/UNDP Project on "Implications for Latin America of the situation of the international monetary and financial system". The author acknowledges with thanks the collaboration of Daniel Titelman and the comments of Gert Rosenthal and Roberto Zahler.

## I

### The debt burden and adjustment

#### 1. *Expansionary or recessionary adjustment?*

The continued transfer of real resources abroad diminishes those available for domestic consumption and investment and makes necessary an equivalent surplus of saving over investment. It is precisely this surplus that is transferred abroad.

In order to make this transfer, these resources have to be converted into transferable resources, which is achieved through the generation of an equivalent surplus of exports over imports. Thus, the surplus of saving over investment has its counterpart in the external sector.

From the standpoint of employment and economic activity, the ideal combination of circumstances would be one in which the necessary surplus is generated through an increase in saving and is converted into resources transferable overseas through an increase in exports and efficient import substitution. In this way, the transfer would be achieved while maintaining a high level of activity and employment and without sacrificing investment. The cost of the transfer in terms of well-being does not disappear, since a part of the goods and services produced through the use of the available resources has to be transferred abroad. Nevertheless, this cost would be minimized with the disappearance of the problems linked with unemployment and the reduction of the growth potential.

In the actual fact, however, the surplus to be transferred was generated through a drastic fall in investment, and its conversion into transferable resources was produced through a striking drop in imports, employment and the level of business activity. The contraction of imports had to create the macroeconomic space needed not only to transfer abroad the real resources involved in the servicing of the debt but also to accommodate a fall in the level of Latin American exports due to the unprecedented deterioration in the terms of trade and the prices of the overwhelming majority of products exported by the region.

Thus, from their maximum level reached in 1981, Latin American imports at constant prices have fallen by 40% so that their 1985 level is lower than that of 1974. The per capita gross domestic product in 1985 was 9% lower than in 1980 and the fall in per capita national income, which takes into account the negative effect of the terms of trade and factor payments to the exterior (mainly profits and interest), was still more pronounced.

The severity of the adjustment process and the high cost that the countries have been willing to pay in order to maintain normality as far as possible, in the servicing of their external debt, reveal the interest of the Latin American governments in maintaining a long-term relationship with the foreign financial markets. The governments have not been in favour of solutions involving a rupture, and unilateral action has only occurred in isolated cases and through lack of other options.

The events of 1985 and of the first half of 1986 have helped to aggravate the debt problem in at least two aspects: the problem has become concentrated in a smaller number of countries, but its magnitude has not diminished; and the growth rate of the world economy does not appear to be reaching satisfactory levels even after the fall in oil prices. Moreover, the terms of trade (excluding oil) show no signs of recovery despite the brusque devaluation of the dollar on international markets. It seems that time is not helping to solve the problem, except in so far as it enables the creditors to strengthen their equity position (by increases in their reserves and capital) so as to place themselves in a better position to cope with their portfolio risks. The passage of time might also allow certain adjustment policies adopted by the debtor countries to begin to show some effect, but the implications for the world economy and the terms of trade of a situation in which many countries, are adjusting at the same time and in the same direction do not encourage much hope in this respect.

### *2. The debt servicing burden*

Although the nominal interest rates applicable to the debt are now only half what they were in 1981, the continuing rise in the volume of the debt, coupled with the persistent deterioration in the terms of trade, mean that the debt servi-

cing burden continues to increase. For a country that had experienced a fall in its terms of trade similar to that of the group of non-oil-exporting countries of Latin America, the cost of paying one dollar of interest, expressed in terms of real resources, would have grown by 50% between 1980 and 1984. This means that if in 1980 it was necessary to sacrifice a hundred units of tradeable goods in order to service the debt, at the end of 1984 it was necessary to sacrifice a hundred and fifty units for the same service (Massad, 1986a). In 1985 the situation was even worse, since the fall in interest payments did not succeed in compensating for the further fall in the terms of trade.

Two elements are decisive in this result: the interest rates and other costs applicable to the foreign debt, and the variation in the terms of trade. The behaviour of both is largely beyond the control of the individual debtor countries. These, however, do have a collective influence, neither sought for nor desired, on the terms of trade. Their simultaneous efforts to increase their exports, particularly of primary products, in a world economy of sluggish growth have a depressive effect on the prices of those products, so that without wanting to, they aggravate their own external finance problems (Massad, 1984). This effect has now been recognized internationally (BIS, 1986; JEC, 1986).

### *3. The 1930s and the 1980s*

From the standpoint of employment and economic activity, particularly in Latin America, the crisis of the 1980s has features at least as serious as those of the Great Depression of the 1930s. The terms of trade of the non-oil-exporting countries of Latin America and the Caribbean in 1985 were even worse than those recorded in any year of the earlier great world crisis. For the countries of the region as a whole, the terms of trade in 1985 were only 4% higher than the average between 1930 and 1937 (see table 1 and figures I and II). During the great world crisis the bulk of the debt consisted of bonds floated abroad, for which there was a market. When the crisis radically reduced the debtor countries' capacity to make payments abroad and they found themselves obliged to suspend totally or partially their servicing of the debt, the market price of the bonds plummeted. In 1939, for ins-

tance, seven years after the worst moment of the crisis, South American bonds with arrears of payment were quoted at 14% of their nominal value, Central American bonds at 30% and West Indian bonds at 46% of their value. Between 1935 and 1939 Chile purchased bonds of its own debt with a nominal value of US\$ 88 million at the prices of the period for a payment of around US\$ 13 million, that is, it paid 15 cents for each dollar of debt (Feuerlein and Hanna, 1941). This contraction of the debt represented a reduction of one-third in the total Chilean debt in bonds expressed in 1935 dollars.

Through the application of this mechanism and the total or partial suspension of debt servicing, its burden was distributed between creditors and debtors. In the crisis of the 1980s the cases of default are few and the burden of debt servicing, except in a few isolated and unimpor-

Table 1  
LATIN AMERICA: TERMS OF TRADE,  
1930-1985  
(Indexes 1970 = 100)

|      | Latin America<br>as a whole <sup>a</sup> | Non-oil-exporting<br>countries <sup>b</sup> |
|------|--|---|
| 1930 | 102.4                                    | 95.3  |
| 1931 | 82.7                                     | 78.1  |
| 1932 | 89.5                                     | 83.2  |
| 1934 | 82.7                                     | 79.0  |
| 1935 | 93.3                                     | 89.6  |
| 1936 | 95.7                                     | 93.1  |
| 1937 | 100.3                                    | 97.0  |
| 1938 | 94.1                                     | 89.9  |
| 1939 | 93.3                                     | 80.5  |
| 1940 | 90.8                                     | 86.4  |
| 1941 | 94.5                                     | 90.6  |
| 1942 | 94.8                                     | 93.4  |
| 1943 | 99.3                                     | 93.5  |
| 1944 | 106.2                                    | 103.3                                       |
| 1945 | 102.9                                    | 100.9                                       |
| 1946 | 118.1                                    | 117.2                                       |
| 1947 | 121.0                                    | 118.3                                       |
| 1948 | 122.0                                    | 110.2                                       |
| 1949 | 114.8                                    | 103.1                                       |
| 1950 | 135.9                                    | 114.9                                       |
| 1951 | 135.4                                    | 118.8                                       |
| 1952 | 117.4                                    | 99.2  |
| 1953 | 129.2                                    | 109.2                                       |
| 1954 | 125.8                                    | 109.9                                       |
| 1955 | 123.1                                    | 99.1  |
| 1956 | 124.5                                    | 100.4                                       |
| 1957 | 130.6                                    | 99.8  |
| 1958 | 119.3                                    | 92.4  |

|                   | Latin America<br>as a whole <sup>a</sup> | Non-oil-exporting<br>countries <sup>b</sup> |
|-------------------|--|---|
| 1959              | 109.3                                    | 88.3  |
| 1960              | 106.4                                    | 90.6  |
| 1961              | 104.4                                    | 89.9  |
| 1962              | 98.8                                     | 85.8  |
| 1963              | 98.7                                     | 88.9  |
| 1964              | 100.4                                    | 96.4  |
| 1965              | 95.6                                     | 92.8  |
| 1966              | 95.8                                     | 93.7  |
| 1967              | 94.3                                     | 91.0  |
| 1968              | 95.2                                     | 91.3  |
| 1969              | 96.7                                     | 96.2  |
| 1970              | 100.0                                    | 100.0                                       |
| 1971              | 97.4                                     | 91.8  |
| 1972              | 100.0                                    | 96.2  |
| 1973              | 113.4                                    | 107.1                                       |
| 1974              | 131.4                                    | 97.8  |
| 1975              | 113.8                                    | 84.9  |
| 1976              | 118.9                                    | 90.6  |
| 1977              | 125.8                                    | 98.4  |
| 1978              | 112.7                                    | 88.2  |
| 1979              | 116.8                                    | 84.2  |
| 1980              | 119.7                                    | 79.4  |
| 1981              | 110.2                                    | 71.0  |
| 1982              | 99.8                                     | 65.0  |
| 1983              | 94.3                                     | 65.0  |
| 1984              | 99.3                                     | 68.8  |
| 1985 <sup>c</sup> | 96.9                                     | 66.1  |

Source: 1930-1949: ECLAC (1977).

1950-1985: ECLAC, on the basis of official figures.

<sup>a</sup>Includes 19 countries.

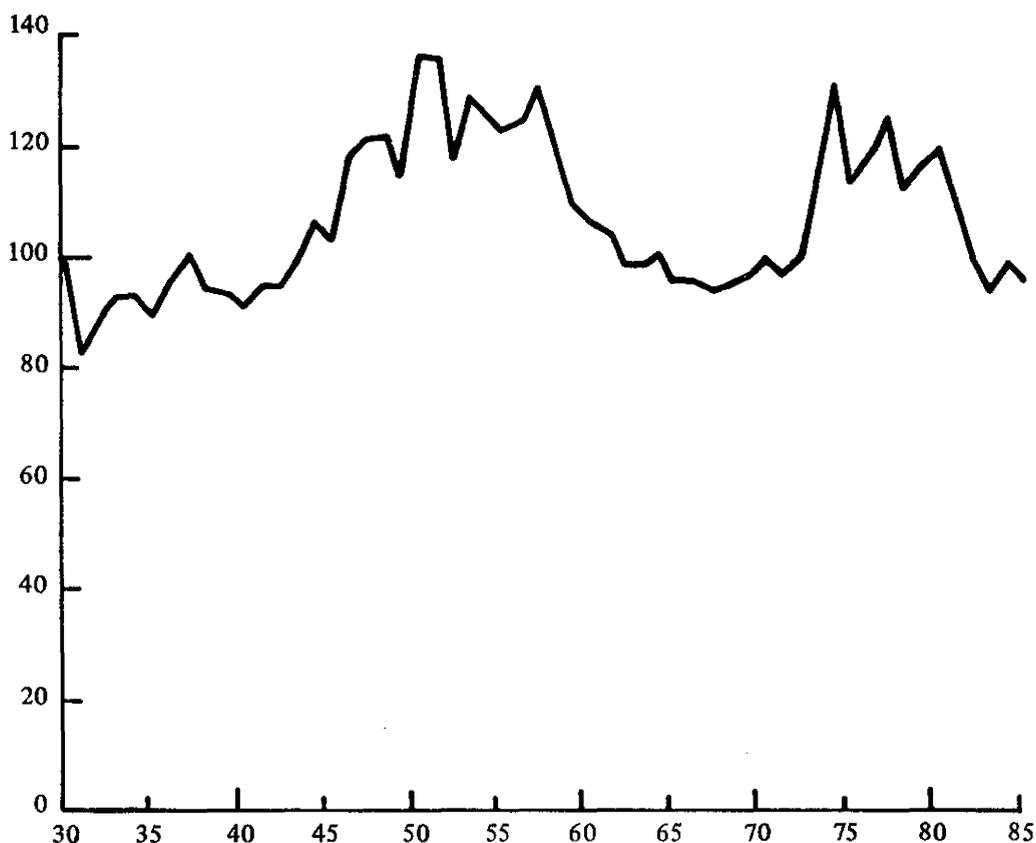
<sup>b</sup>Excludes Mexico, Venezuela, Ecuador.

<sup>c</sup>Preliminary figures.

tant cases, has not been lightened for the debtor in relation to market conditions. The debt is mainly with the banking system, and the profits of the major creditor banks have grown steadily during the whole period. The exceptions to this (mainly the Bank of America) have no connection with the portfolio of loans to the developing countries but rather with the internal economic situation of some sectors and enterprises in the United States (JEC, 1986).

During the crisis of the 1930s, agreements were concluded between creditors and debtors which reduced the capital of the debt and lowered the interest payments far below those of the market, as well as extending the payment period. Agreements of this type have not been achieved in the crisis of the 1980s. On the contrary, the transfers of real resources overseas by the Latin American debtor countries due to the payment of interest on their debt, as a proportion of their

Figure I  
**LATIN AMERICA:<sup>a</sup> INDEX OF TERMS OF TRADE, 1930-1985**  
 (1970 = 100)



Source: 1930-1949: ECLAC (1977); 1950-1985: ECLAC, on the basis of official information.  
<sup>a</sup>Includes 19 countries.

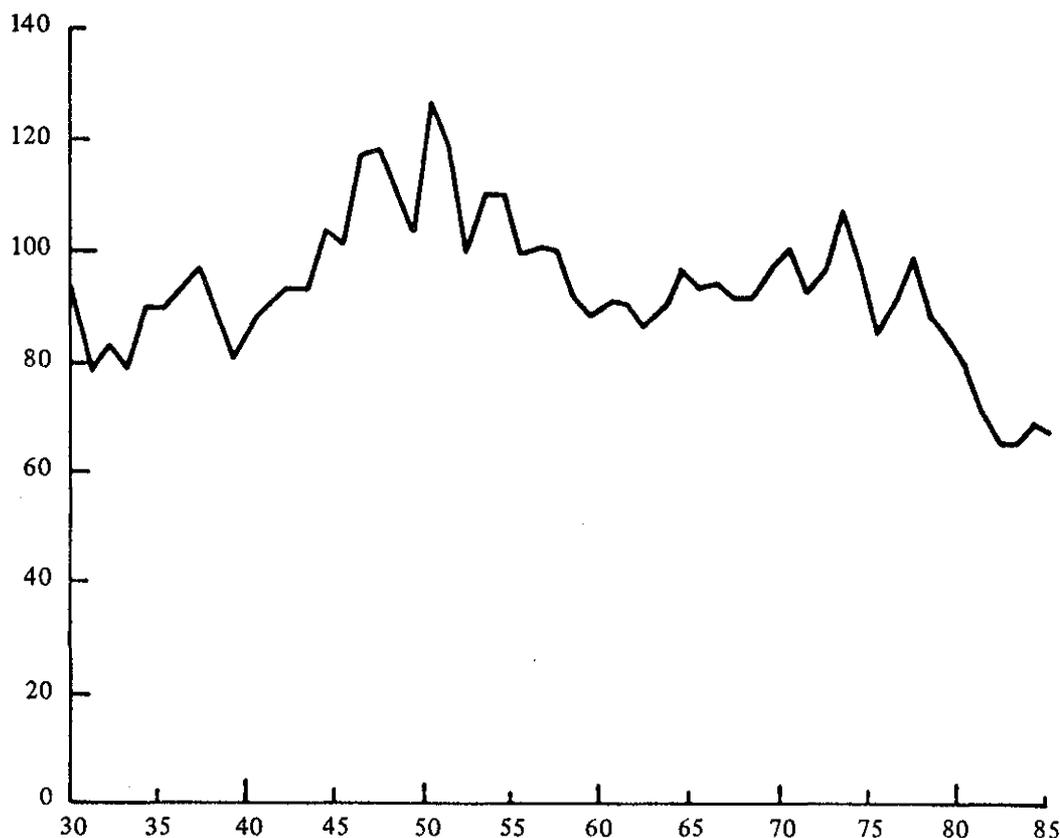
exports, are far above even those made by Germany after the Treaty of Versailles in respect both of war reparations and of interest payments on its foreign debt and remittances of profits.

In fact, the total net profits, interest and war reparations paid to the exterior never reached 25% of German exports, even in the worst days of the great crisis. In the case of Latin America, in contrast, payments of interest and profits bordered on 40% of exports of goods from 1982 onwards. What is more, when in 1931 these payments, including war reparations, reached 23% of German exports (or 36% if capital flight from Germany is added), a special commission of the Bank of International Settlements (BIS), responsible for advising the Bank on the ques-

tion of the payment of reparations, decided that Germany was justified in declaring that it could not comply with a large part of this obligation (Haberler, 1950). In the following year (1932) payments of war reparations fell by 84%, and they disappeared completely in 1933. Moreover, during the period of heaviest reparation payments, Germany was a net receiver of financial resources from abroad: between 1924 and 1932 Germany's net capital inflows were 20% higher than the sum of the payments of interest, profits and war reparations (see table 2).

The commercial banks that are creditors of Latin America have reached agreements with some enterprises whose debt is not State guaranteed to reduce the capital and alleviate interest

Figure II  
**LATIN AMERICAN NON-OIL-EXPORTING COUNTRIES:<sup>a</sup>**  
**TERMS OF TRADE, 1930-1985**  
 (1970 = 100)



Source: 1930-1949: ECLAC (1977); 1950-1985: ECLAC, on the basis of official information.

<sup>a</sup>Excludes Mexico, Venezuela and Ecuador.

payments. However, the amounts involved are very small in relation to the total debt (less than 1%), so that these agreements have little significance at the macroeconomic level.

#### 4. *The debt burden and growth: a simulation model*

With the aim of assessing the magnitude of the efforts that the debtor countries must make in order to meet their debt obligations in a context of growth, a model was used (see the annex) which relates the growth rate of the debt with the external interest rate, the debt/product ratio, and the foreign trade imbalance (or the difference between saving and investment) (Massad, 1985; Massad 1986b).

Use of the model called for the estimation of the investment needed to secure a growth of the product of 4% per year: a figure considered a minimum target. The investment rate required for a growth of 4% on average for the group of seven countries studied was 23% of the product. For the purposes of the simulation, however, a lower rate (20% of the product) was used, since it was considered that, as the countries had idle capacity and relatively high unemployment, it would be possible to grow with less investment than that required on average for long periods. A more precise study might attempt to estimate the investment requirements of a cyclical nature.

It was also necessary to estimate the income-elasticities of the demand for imports. The exis-

Table 2

## GERMANY: CURRENT PAYMENTS AND NET INFLOW OF CAPITAL, 1924-1932

*(Billions of marks)*

| Year | Exports<br>of goods | War<br>repara-<br>tions | Interest<br>and<br>profits <sup>a</sup> | Capital<br>inflow <sup>b</sup> | 2 + 3 | 5/1  | 4 - 5 | 7/1   |
|------|---------------------|-------------------------|---|--------------------------------|-------|------|-------|-------|
|      | 1                   | 2                       | 3                                       | 4                              | 5     | 6    | 7     | 8     |
| 1924 | 7.8                 | 0.3                     | -0.2                                    | 3.1                            | 0.1   | 0.01 | 3.0   | 0.38  |
| 1925 | 9.6                 | 1.1                     | -                                       | 3.5                            | 1.1   | 0.11 | 2.4   | 0.25  |
| 1926 | 10.7                | 1.2                     | 0.2                                     | 1.1                            | 1.3   | 0.12 | -0.2  | -0.02 |
| 1927 | 11.1                | 1.6                     | 0.3                                     | 5.3                            | 1.9   | 0.17 | 3.4   | 0.31  |
| 1928 | 12.6                | 2.0                     | 0.6                                     | 3.8                            | 2.5   | 0.20 | 1.3   | 0.10  |
| 1929 | 13.7                | 2.5                     | 0.8                                     | 3.2                            | 3.3   | 0.24 | -0.1  | -0.01 |
| 1930 | 12.2                | 1.7                     | 1.0                                     | 1.0                            | 2.7   | 0.22 | -1.7  | -0.14 |
| 1931 | 9.6                 | 1.0                     | 1.2                                     | -1.3                           | 2.2   | 0.23 | -3.5  | -0.36 |
| 1932 | 5.8                 | 0.2                     | 0.9                                     | -0.2                           | 1.1   | 0.19 | -1.3  | -0.22 |

*Source:* Prepared on the basis of data compiled by the League of Nations (1945b).

<sup>a</sup>Net interest and profits remitted abroad. Minus sign indicates net income.

<sup>b</sup>Includes net balance on other services, net capital inflow, and errors and omissions. The latter mainly represent unregistered capital movements. Minus sign indicates net outflow.

ting estimates refer to average elasticities for long periods and do not permit an assessment of what will probably happen with imports when the product falls or rises with some abruptness. Hence, estimates were made of cyclical elasticities, which turned out to be much higher than the average or trend elasticities, which were also calculated for purposes of comparison. The latter coincide with those estimated in other studies.

The calculations were made country by country for seven Latin American nations: Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. With the results of the estimates mentioned, three sets of simulations were prepared for different relative levels of indebtedness: high (corresponding to a debt equal to the product); medium (defined as a foreign debt equal to 70% of the product); and low (where the debt represents 50% of the gross domestic product).

For each of these three levels of indebtedness, five different rates of real interest on the debt and three rates of real growth of the debt were used. Four consecutive annual periods were

simulated, and the results were averaged out to obtain the figures given in tables 3, 4 and 5. The averages conceal a leap that occurs in the first year of the exercise, as the rates of saving adjust to the levels required. In some cases, the balance is such that it seems impossible to achieve it in practice, so that the level of the debt would have to grow more than was assumed.

For the countries with high indebtedness (table 3), if the nominal debt in dollars grows at 3% per year and if the external rate of interest, which includes all the costs of the debt, is 10% per year, a domestic saving rate of 27% of the product would be required and there would have to be a real growth rate of exports of 18% per year on average in the first four years of the exercise, which would clearly be difficult to achieve. With an interest rate of 4% per year the saving needed for a growth of 4% is reduced to 21% of the product (for a growth of the debt of 3% per year) and exports would have to increase at an annual average rate of 13%.

The best of all the situations simulated, for all the countries, consists of a growth of the debt of 7% and an interest rate on the debt of 4% per

Table 3

D/Y = 1

| i    | I    | AMI <sup>a</sup> | AME <sup>b</sup> | AMX <sup>c</sup> | $\Delta$ IM | $\Delta$ EXMI <sup>a</sup> | $\Delta$ EXME <sup>b</sup> | $\Delta$ EXMX <sup>c</sup> | TRMI <sup>ad</sup> | TRME <sup>b</sup> | TRMX <sup>c</sup> |
|------|------|------------------|------------------|------------------|-------------|----------------------------|----------------------------|----------------------------|--------------------|-------------------|-------------------|
|      | Y    | Y                | Y                | Y                | M           | EX                         | EX                         | EX                         | Y                  | Y                 | Y                 |
| 0.12 | 0.20 | 0.25             | 0.29             | 0.32             | 0.11        | 0.16                       | 0.20                       | 0.23                       | 0.05               | 0.09              | 0.12              |
| 0.10 | 0.20 | 0.23             | 0.27             | 0.30             | 0.11        | 0.14                       | 0.18                       | 0.21                       | 0.03               | 0.07              | 0.10              |
| 0.08 | 0.20 | 0.21             | 0.25             | 0.28             | 0.11        | 0.12                       | 0.16                       | 0.19                       | 0.01               | 0.05              | 0.08              |
| 0.06 | 0.20 | 0.19             | 0.23             | 0.26             | 0.11        | 0.10                       | 0.14                       | 0.17                       | -0.01              | 0.03              | 0.06              |
| 0.04 | 0.20 | 0.17             | 0.21             | 0.24             | 0.11        | 0.08                       | 0.15                       | 0.13                       | -0.03              | 0.01              | 0.04              |

Table 4

D/Y = 0.7

| i    | I    | AMI <sup>a</sup> | AME <sup>b</sup> | AMX <sup>c</sup> | $\Delta$ IM | $\Delta$ EXMI <sup>a</sup> | $\Delta$ EXME <sup>b</sup> | $\Delta$ EXMX <sup>c</sup> | TRMI <sup>ad</sup> | TRME <sup>b</sup> | TRMX <sup>c</sup> |
|------|------|------------------|------------------|------------------|-------------|----------------------------|----------------------------|----------------------------|--------------------|-------------------|-------------------|
|      | Y    | Y                | Y                | Y                | M           | EX                         | EX                         | EX                         | Y                  | Y                 | Y                 |
| 0.12 | 0.20 | 0.23             | 0.26             | 0.29             | 0.11        | 0.14                       | 0.17                       | 0.20                       | 0.04               | 0.06              | 0.09              |
| 0.10 | 0.20 | 0.22             | 0.25             | 0.27             | 0.11        | 0.13                       | 0.16                       | 0.18                       | 0.02               | 0.05              | 0.07              |
| 0.08 | 0.20 | 0.20             | 0.24             | 0.26             | 0.11        | 0.11                       | 0.15                       | 0.17                       | 0.01               | 0.04              | 0.06              |
| 0.06 | 0.20 | 0.19             | 0.22             | 0.24             | 0.11        | 0.10                       | 0.13                       | 0.15                       | -0.01              | 0.02              | 0.04              |
| 0.04 | 0.20 | 0.18             | 0.22             | 0.22             | 0.11        | 0.09                       | 0.11                       | 0.13                       | -0.02              | 0.01              | 0.02              |

Table 5

D/Y = 0.5

| i    | I    | AMI <sup>a</sup> | AME <sup>b</sup> | AMX <sup>c</sup> | $\Delta$ IM | $\Delta$ EXMI <sup>a</sup> | $\Delta$ EXME <sup>b</sup> | $\Delta$ EXMX <sup>c</sup> | TRMI <sup>ad</sup> | TRME <sup>b</sup> | TRMX <sup>c</sup> |
|------|------|------------------|------------------|------------------|-------------|----------------------------|----------------------------|----------------------------|--------------------|-------------------|-------------------|
|      | Y    | Y                | Y                | Y                | M           | EX                         | EX                         | EX                         | Y                  | Y                 | Y                 |
| 0.12 | 0.20 | 0.22             | 0.24             | 0.26             | 0.11        | 0.13                       | 0.15                       | 0.17                       | 0.02               | 0.04              | 0.06              |
| 0.10 | 0.20 | 0.21             | 0.23             | 0.25             | 0.11        | 0.12                       | 0.14                       | 0.16                       | 0.01               | 0.03              | 0.05              |
| 0.08 | 0.20 | 0.20             | 0.22             | 0.24             | 0.11        | 0.11                       | 0.13                       | 0.15                       | -                  | 0.02              | 0.04              |
| 0.06 | 0.20 | 0.19             | 0.21             | 0.23             | 0.11        | 0.10                       | 0.12                       | 0.14                       | -0.01              | 0.01              | 0.03              |
| 0.04 | 0.20 | 0.18             | 0.20             | 0.22             | 0.11        | 0.09                       | 0.11                       | 0.13                       | -0.02              | -                 | 0.02              |

<sup>a</sup> Assumes a nominal growth rate of the debt of 7% per year.<sup>b</sup> Assumes a nominal growth rate of the debt of 3%.<sup>c</sup> Assumes a zero nominal growth rate of the debt.<sup>d</sup> Minus sign signifies inflow of resources from abroad.

i = External interest rate (including all the costs of the external debt).

I/Y = Ratio of investment/GDP required.

AMI/Y = Minimum ratio of saving/GDP required.

AME/Y = Medium ratio of saving/GDP required.

AMX/Y = Maximum ratio of saving/GDP required.

 $\Delta$ IM/M = Growth rate of imports. $\Delta$ EXMI/EX = Minimum growth rate of exports required. $\Delta$ EXME/EX = Medium growth rate of exports required. $\Delta$ EXMX/EX = Maximum growth rate of exports required.

TRMI/Y = Minimum transfer of resources abroad/GDP.

TRME/Y = Medium transfer of resources abroad/GDP.

TRMX/Y = Maximum transfer of resources abroad/GDP.

year. In these circumstances, the saving required is around 17%-18% of the product and the real growth rate of exports falls to 8%-9% per year. Although the rate of saving is similar to that recorded in recent years, the required growth rate of exports is much higher than that which was actually achieved.

To judge from the available information, it does not seem likely that the external debt can grow at a nominal 7% per year. Even if it did, it would imply the maintenance of the present debt/product ratios, which does not seem desirable as a long-term result. If it is assumed, for example, that the nominal growth of the debt is around 3% per year, the results deteriorate. In the best of cases domestic saving of 20% of the product is required, with a growth rate of exports of 9%-10% per year in real terms. It should be borne in mind that for the group of countries considered in the study the rate of saving in relation to the product in the period 1981-1985 reached an average of 17%, while real exports grew at an annual average rate of 5.4%.

Even the figure of 3% nominal growth of the debt does not seem easy to achieve, so an analysis was also made of the situation when the debt does not grow (i.e., it falls in real terms). In this case, with an interest rate of 6% per year, in the best of all the situations simulated (that of a relatively low debt) the saving required is around 23% of the product and the real growth of exports would have to be of the order of 14% per year on average.

Naturally, if the interest rate were 8% instead of 6% and the debt remained constant, the results would be even worse: in the best of cases a domestic saving of 24% of the product would be needed, with a real annual export growth rate of 15% on average.

The high rate of export growth needed in every case shows that the "natural" solution to the debt problem depends decisively on the expansion of the world economy. If this does not grow enough, increases in exports such as those indicated are highly improbable, and even if they did occur, it would be at the cost of additional adverse effects on the terms of trade.

The calculations show the obvious need to seek formulas to relieve the debt burden which will reduce the saving and export efforts requi-

red, even in the case of those countries with a relatively low debt.

These formulas should alleviate the debt without cost, that is, to say, without using up resources of the debtor countries. There are only three ways of achieving this objective: reduction of real interest rates (or of the capital of the debt), improvement of the terms of trade, and an increase in the productivity of investments. The first two do not depend on the policies of the debtor countries, at least in the short term: it is the creditor countries which have the appropriate policy instruments in their hands. The third essentially depends on the domestic policies of the debtor countries, but it too is linked with the prices of the products they export: only a change for the better in these prices would rapidly raise the productivity of investment, measured in terms of importable goods. Other changes in productivity would call for new investments, and even structural reforms, which take time and require more financing. In this sense "financing" and "adjustment" are not alternatives, but complementary terms.

A reduction of two points in the interest rate alleviates the saving effort by one to two percentage points of the product and reduces by between one and two percentage points the rate of export growth that would be required.

The return of real interest rates to their historical levels of between 1% and 3% per year, or specific measures to reduce the cost of the debt to those levels, would mean a reduction of the investment effort needed by two to four percentage points of the product, while the rate of export growth needed would also be reduced by two to four percentage points. This appears to be an indispensable contribution by the creditors if the effort of the debtors is to be sustainable.

We must therefore examine the nature of solutions to the debt problem that could be attained by lessening the burden of its servicing. The solution of the debt problem is in the interests of the debtors, but it also favours the creditors themselves. On the one hand it improves the quality of their portfolio of assets and facilitates the return of the financial system to normality. It also makes possible a more normal handling of economic policy without the enormous uncertainties that always accompany crisis situations. Finally, it permits a higher growth

rate in the debtor countries, whose purchases of all kinds from the creditor countries represent an appreciable element of dynamism for the economies of the latter. Studies made in respect

of the United States indicate that perhaps a half of any reduction in the servicing of the Latin American debt will be devoted to purchases in that country (JEC, 1986).

## II

### Possible solutions

The solutions designed to relieve the burden of the debt are based on five premises (Massad, 1986b):

i) Both creditors and debtors must share the responsibility for the rapid growth of the debt.

ii) The fact that the debt problem has reached an acute stage is the result not only of factors beyond the debtor countries' control (the policies applied by the industrial countries, the international recession, the procyclical behaviour of external financing), but also of the debtors' own policies. Nevertheless, the widespread impact of the problem underlines the importance of the external factors.

iii) The prolonged recessionary adjustment of the debtor countries' economies is unsustainable.

iv) As time is needed for the reassignment of resources which is essential in order to generate the surpluses required for the servicing of the debt, adjustment and financing are not different approaches to the debt problem but both form part of its solution.

v) It is in the interest both of the debtor and the creditor countries to reach a rapid solution of the present crisis.

As recent experience shows, the reduction of the interest rate and the improvement of the terms of trade are crucial for the solution of the debt problem. Failing a market solution consistent with both variables, every other solution points to a reduction of interest payments on the debt. There are two ways of tackling this issue. One is the restriction of interest payments in accordance with certain criteria of capacity to pay, such as total exports, the price of a key export product, total foreign exchange receipts, or the gross domestic product. The other method consists of a direct reduction, without accumulation, of service payments. If the first method permitted the debt servicing to accumulate

indefinitely above the limits adopted, then the first and the second methods would be financially equivalent.

#### 1. *Reduction of interest payments on the debt*

The burden of the debt can be directly reduced either by lowering interest rates and other costs below the market rates or by a direct reduction of the principal of the debt. Although the two approaches differ in accounting terms, they are, under equal tax conditions, financially equivalent. The reduction of interest is reflected in the balance sheet of the creditor institution only with the passage of time (provided that accounting rules permit this), whereas the reduction in the principal of the debt is immediately reflected in full in the accounts. This accounting difference may be decisive for the stability of the creditor institution.

Accounting rules are very important in this respect. In the United States, for instance, interest concessions must be reflected in a charge against capital only if the sum of the future payments of capital and interest is lower than the total capital outstanding at the time of granting the concession (JEC, 1986). This means that, even if interest and commissions are reduced to zero, there is no compulsory charge against the capital of the debt if there is an assurance that this capital will be paid in the future. Hence the margin of negotiation of interest by the banks between zero and market rates is basically limited by the need to maintain a reasonable profitability on their own capital.

The effects on the profits of the creditor banks of an alleviation of interest payments on the debt do not seem to be excessive. A study by the United States Congress points out that if Latin American interest payments had been reduced by US\$12 billion in 1985 and if the

banks had written down by 1% the value of their existing credits in Latin America in that year, the nine most important banks in the United States would have shown profits in 1985 which, after payment of taxes, were higher than the level recorded in 1984, even if those banks had absorbed a part of the reduction of interest in proportion to their credits with Latin America (JEC, 1986). It should be noted that the effects on the banks' profits (after tax) of a reduction of interest or a reduction of capital may differ according to the tax treatment applicable in each case.

In so far as the reduction of interest improves the economic situation of the debtors, the prospects of the recovery of their capital by the creditors improve also. Hence, when the risk commitment with a particular debtor is relatively small compared with the total of a bank's portfolio of assets, the bank prefers to make concessions regarding interest rather than to grant new loans to the debtor at risk; in this way the debtor's situation is improved and the possibility of recovery of capital is strengthened. According to private commercial bankers in the United States, the regional banks prefer this method to the granting of "fresh" money to foreign debtors.

Numerous formulas have been proposed for reducing the cost of interest payments on the external debt. The reduction or elimination of commissions and other charges is one that has already been applied to a limited extent in the three rounds of renegotiations held since 1982. In the first, both the spread over the reference rate and the commissions were considerably higher than their levels before the crisis. The average spread in the first round reached 2.22% over LIBOR and the average commission amounted to 1.27% for the twelve countries involved in the renegotiations. In the second round, the average spread was reduced to 1.77% over LIBOR for the group of seven countries that renegotiated in 1983-1984, while the commissions were reduced to 0.8%. In the third round, the average spread over LIBOR and the commissions were reduced even further to 1.44% and 0.42% respectively. In this last round some countries negotiated the complete elimination of commissions, but the spread over the reference rate was maintained, and was even much higher

than that prevailing before the crisis, which in some cases was well below 1%.

Thanks to direct negotiations between the debtors and the commercial banks, a reduction has thus been achieved in the interest spreads and commissions in comparison with the high figures recorded in the first round of renegotiations. Nonetheless, the reference interest rates remain above their historical levels. In some recent cases of renegotiations the traditional reference rates (LIBOR or Prime) have been replaced by rates representing the cost of attraction of funds on the part of the banks, which are lower than the traditional reference rates. The difference is only small, however, and may represent a relief on the cost to the debtor of no more than half a percentage point per year.

A rescheduling of debt payments involves the separation of payment in national currency from payment in foreign exchange. If the benefits achieved in the rescheduling are not transmitted in full to the individual debtor, the latter is still under the obligation to possess, at the dates originally agreed, the national currency needed to purchase the foreign exchange with which the debt or its service will finally be paid. Thus the rescheduling may imply a fiscal benefit, to the extent that the authorities of the debtor country demand payment in national currency from individual debtors, while the payment abroad in foreign exchange is deferred in accordance with the rescheduling. This allows domestic monetary policy more room for manoeuvre and may also serve as a mechanism applicable in formulas designed to alleviate interest payments abroad.

The formulas employed so far have not been sufficient to provide a notable relief in the servicing of the debt. Consequently, many other formulas are still being considered, both to reduce interest payment commitments and to modify the nature of these payments. The former include the automatic capitalization of interest at rates well below those in force and the payment of interest in national currency for subsequent conversion into foreign exchange.

The capitalization of interest would enable the annual interest payments to be regulated by capitalizing the amount exceeding certain limits. Thus as well as lightening the burden of interest payments an element of stability is introduced into the debtors' balance of payments by isolat-

ing the annual interest payments from changes that may occur in international interest rates. Mechanisms of this type would form an automatic stabilizer for the world economy. They would also help to distribute the cost of the capitalization proportionally among the creditors.

The payment of interest in national currency (indexed in accordance with the currency in which the loan is expressed) is conceptually similar to the foregoing method, with the difference that in this case the possibility is envisaged that the creditor may employ the funds accumulated in the national currency of the debtor country for certain specified uses. For instance, the accumulated resources might be employed for purchasing specific goods and services or certain securities or other assets in the debtor country, or they might also be lent again in that country; the conversion of these funds into foreign currency and the corresponding payment abroad would be subject to stipulated formulas linked, for example, with total exports or the value of the exports of a key product for the economy in question. This mechanism might also be handled so as to regulate payments of interest to the exterior and convert them into a relatively constant flow over time.

Any of the options for payment in national currency that would be usable locally would, if given generalized application, undoubtedly have macroeconomic effects in the debtor country both in terms of inflationary pressures and of changes in the structure of ownership.

### *2. Reduction of the principal of the debt*

Another way of reducing interest payments to the exterior is the direct reduction of the principal of the debt. The straightforward accounting write-down of the State-guaranteed debt might have negative effects on the debtors' future access to the normal market, so that this possibility can only be considered when the debtors do not expect to have further recourse to the market for a prolonged period. This is not usual with the Latin American countries, so that for them the methods for reducing the principal of the debt are more limited. There are, however, formulas, which enable the principal of the debt to be reduced without affecting the debtors' access to the commercial credit market. For instance, a

secondary market of debt bonds such as that which has been emerging since the end of 1984 would enable the debtors to purchase their own debt at a capital value below 100% of the debt, when the market values it in this way.<sup>1</sup> Transactions are known to have been carried out at values between 60% and 90% of the nominal debt, depending on the countries involved, and some of them have set up formal mechanisms for the repurchase of their own debt with the commercial banks (for example, Chile). Obviously, the reduction of the principal of the debt implies a reduction in interest payments. So far, operations of this kind represent only small percentages of the total debt of the residents of the countries in question with the banks.

There have also been proposals for the transfer of assets of the commercial banks to multilateral agencies, which would purchase them for less than their nominal value and take over the task of rescheduling the debtors' payments, transferring to the latter the benefit of the lower value of these assets. The difficulty about these proposals is that the operation would require an increase in the capital of the multilateral institutions concerned or would exhaust the margins of capital available for direct loans by them. Consequently, this type of solution does not seem to represent a formula that would lead to an increase in the net resources available to debtors. For the creditors, however, it might prove attractive if they perceive a considerable and widespread risk in their present portfolio.

### *3. Transformation of debt into equity capital*

One way of changing the nature of the interest payment commitment which can also be combined with the repurchase of the debt is the transformation of the latter into equity capital. By doing this, the nature of the commitment is changed, since the regular payment of interest is replaced by remittances of profits as these are generated. Since the State does not guarantee the commercial risk of the investments, the transformation of debt into equity capital means in

<sup>1</sup>It may be argued that the co-existence of a debt valued below its nominal value and of new loans is only due to the fact that the latter are not voluntary. The line between "voluntary" and "involuntary" new loans is by no means clear.

practice the elimination of the public guarantees which might be committed in respect of the debt. This transformation could also reduce the rigidity of the annual amounts of remittances to the exterior, since the profits are dependent on the economic result of the enterprise.

In view of the magnitudes involved, the transformation of debt into equity capital, if carried out on a widespread basis, might signify a very important change in the ownership of the national wealth, with the ensuing political effects.

The repurchase of debt and its transformation into equity capital could serve as a mechanism to facilitate the return of national capital invested abroad. If the operation of repurchase and investment involves attractive profits, as seems to be the case in the transactions carried out so far, it would not be surprising if national capital abroad were attracted by the opportunities offered by such a process.

#### 4. *Debt from official sources*

The solution mechanisms referred to are mainly applicable to debt from private sources. As regards debt from official sources, which represents a relatively small proportion of the debt for Latin American countries as a whole, the terms of the renegotiations agreed to should not be limited by the same criteria of profitability as

those that apply to the loans of commercial banks. Indeed, this is what has happened in practice, since the renegotiations with the Paris Club provide for no commissions or spreads over certain reference rates. What is more, in recent renegotiations the creditor countries have agreed to reschedule not only capital maturities but also interest payments (Dominican Republic). Nonetheless, many public export-financing institutions in the creditor countries tend to limit their loans when maturities are being renegotiated, thus acting in the same way as the commercial banks.

The governments of the creditor countries are not subject to the same restrictions as the commercial banks in the writing-off of certain loans, although the rules vary from country to country. The cancellation or writing-off of debts by a creditor government need not have the same effects on additional financing as such reductions entail for the debtors in the commercial banking system. The same is true of reductions in interest payments. Thus, in those cases where substantial relief in the payment of the debt is needed the contribution that external official creditors might make can be very important. At present a third of the total Latin American external debt comes from sources other than banks, particularly government institutions and official multilateral agencies.

### III

## Some concrete proposals

#### 1. *The proposal of the President of the Inter-American Development Bank*

The President of the Inter-American Development Bank, Antonio Ortiz Mena, has put forward an ingenious proposal. Although it has not been worked out in every detail, the main idea is to refinance automatically a proportion of the interest payments on the debt, thus reducing their cost, through the transfer of the necessary amounts by the creditor banks to a special fund to finance investment projects for the promotion of export growth in the debtor countries. The growth of exports would subsequently facilitate the return of the loaned sources to the special fund and thence to the original creditors.

This would establish a form of automatic partial refinancing of the interest by the banks, the use of the resources thus provided being confined to projects for the expansion of exports (Montagnon, 1986).

#### 2. *The Baker initiative*

In October 1985 the United States Secretary of the Treasury, James A. Baker, proposed a set of ideas as guidelines for solving the problem of the debt (Baker, 1985). Baker accepts the statement of the debtor countries that the debt problem can only be solved in a framework of growth and co-operation between creditors and debtors. He points out the need for structural reforms designed to liberalize the trade and payments of

the debtor countries and to give more importance in these countries to private enterprise, as a condition for gaining access to new loans both from the commercial banks and from the multilateral financing agencies. At the time of its presentation the Baker initiative envisaged new financing in the amount of some US\$ 10 billion per year for three years, 70% of which would come from the commercial banks. This would allow for a nominal growth of around 3% per year in the debt of the countries covered by the initiative.

This initiative is the first official proposal by the United States Government which recognizes the need for government action by the creditor countries to solve the problem of the debt. Although the multilateral financing agencies have conducted their operations subsequent to the announcement of the Baker initiative within its framework, up to mid-1986 the commercial banks had not done so. Moreover, the collapse of oil prices from the beginning of 1986 invalidated the amounts involved in this initiative (ECLAC 1986).

### *3. Proposal of the Cartagena Consensus*

The eleven Latin American signatories of the Cartagena Consensus (Argentina, Bolivia, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Mexico, Peru, Uruguay and Venezuela) have put forward an emergency proposal for negotiations on the subject of the external debt and growth. The proposal does not advocate a collective renegotiation of the terms of the outstanding external debt but it does emphasize the need to establish an international economic climate appropriate for solving the problem. This climate should include the reduction of interest rates to their traditional levels, an increase in the flow of finance, and the strengthening of international machinery to help cushion the impact on the developing countries of fluctuations in the terms of trade and interest rates. The signatory countries have pointed out the need to distinguish between the treatment of the debt already contracted and that of the new debt, so as to facilitate treatment of the latter on market terms, while making possible the application of more favourable conditions for the outstanding debt.

The proposal states the need to put an end to the protectionist measures that hamper the sale

of the debtor countries' products in world markets and stresses the importance of setting a limit on net transfers of resources in respect of debt servicing which will be compatible with a reasonable growth rate of the GDP. The countries of the Consensus have sought to initiate a dialogue between debtors and creditors on these topics, which are of interest to all, and have insisted that the precise terms of the renegotiation of the debt as such must be a matter for agreement between individual debtors and their creditors.

### *4. Proposals in the United States Congress*

The need to seek an alleviation of the debt burden—an achievement which would benefit both debtors and creditors—is beginning to be recognized in political circles in the creditor countries. Proposals on the subject have recently been presented by Senators and Representatives in the United States Congress.

In declarations made in April, May and June of 1986, Senator Bill Bradley (Bradley, 1986) points to the desirability of providing relief in the form of a reduction of debt interest and principal, to be negotiated between each debtor country and a commission made up of government and banking creditors and international agencies. These negotiations would lead to the establishment of a set of support measures for those developing debtor countries which were willing to adopt reforms designed to promote growth, increase domestic saving and restrain capital flight. One of the elements to be considered would be the use of democratic processes to ensure that the plans for economic reform in the debtor countries would have widespread domestic support.

Senator John F. Kerry, for his part, advocates an international development programme which fixes a ceiling for debt servicing as a percentage of exports and a progressive alleviation of the servicing burden according to the degree of disequilibrium in the debtor's trade balance (Kerry, 1986). The programme would be financed by contributions from all the developed countries. A board of seven members would direct the programme, four being elected and the other three representing the International Monetary Fund, the World Bank and GATT. The executive secretary would be chosen from among the elected members by vote of the seven.

Representative Charles E. Schumer proposes a maximum limit of 25% of exports for the servicing of the debt and the writing-off by the banks of a proportion of the loans on the basis of an estimate made by the United States Government as to what would be a reasonable payment on the debt (Schumer, 1986). The writing-off would be a long-term operation, so as not to create problems of capital for the creditor institutions.

#### 5. *The Rohatyn proposal*

The President of the Corporation for Aid to the Municipality of New York, Felix Rohatyn, has

emphasized the desirability of securing a major reduction in the interest rates applicable and extending the credit payment periods. This relief would be accompanied by new capital for the developing countries, coming not from the banking system but from the countries with a big trade surplus, especially Japan. The programme would be supervised by the World Bank, and the beneficiary countries would undertake to carry out domestic reforms to improve their efficiency and increase the importance of the private sector (Rohatyn, 1986).

## IV

### Debt, adjustment and the monetary system

The foregoing proposals are aimed at lightening the burden of the current debt, but not at correcting the defects in the system that cause the recurrent external financial problems of the developing countries and increase their vulnerability to negative external influences. These defects are reflected in the procyclical behaviour of external financing and in an asymmetrical adjustment process which only imposes effective discipline on countries which have to seek finance from the International Monetary Fund.

#### 1. *The procyclical behaviour of external financing*

A repeated lesson of history is that international financing behaves in a markedly procyclical manner. In the past century the loans obtained by the new Latin American republics to defend their recently won independence were obtained through the sale of bonds in England. Argentina (Buenos Aires), Chile, Colombia, Guatemala, Mexico and Peru floated their issues in London between 1820 and 1825. At the end of that year, as a result of the financial panic in England, the flow of finance was halted, and in the following two years all the debtors except Brazil suspended interest payments. It took thirty years of successive renegotiations to regularize the situation. In the third and fourth decades of the past century the debt of the states making up the United States grew to fifteen times its 1820 size. The depression that began in 1837 in England halted

financial flows to the United States, and nine states of that country suspended interest payments in 1841-1842; two of them, Mississippi and Florida, repudiated the whole of their debt and one, Michigan, repudiated part of it. The other six simply ceased to pay interest, without any official announcement (Solomon, 1983).

A new wave of defaults occurred during the depression of 1873 which brought with it, as did the earlier ones, a fall in international capital movements, which in its turn unleashed a crisis in the servicing of the debt. Eleven states of the United States fell into arrears. In view of the need to create a mechanism to facilitate negotiations between the official debtors that issued bonds and their holders of these on the London market, the British Corporation of Foreign Bondholders was set up in this market and represented them in the negotiations which regularly took place and which ended in the reduction of the principal or in the rescheduling of payments of principal and interest. The only debtors in default that did not reach an agreement with this Corporation in its half-century of life up to 1914 were the states of the United States which had repudiated their debts (Feis, 1930).

A similar commission was set up in the United States in 1933 with the name of Foreign Bondholder Protective Council.

In the great crisis of the 1930s, the group of main debtor countries exported net capital bet-

ween 1931 and 1937 (the worst years of the depression), while the main creditor countries received a heavy net inflow of capital (North, 1962). Both in the great crisis of the 1930s and in that of the 1980s the United States absorbed capital from overseas. During this latter crisis the Latin American foreign debt, which had been growing at the rate of around 20% per year since the mid-1970s, suddenly reduced its growth rate to 8% in 1983, 5.6% in 1984 and 2.1% in 1985. This last rate of growth of the debt is considerably lower than the international inflation rate. The increase in the debt is also lower than the direct payments of interest and profits to the exterior.

The phenomenon of the procyclical behaviour of foreign financing has been recognized for over forty years. It was assumed that the World Bank would fulfil the function of providing anticyclical finance in the postwar period (League of the Nations, 1945a).

Repeated historical experience underscores the need to look at the debt problem not only on a country-by-country basis, but also from a system-wide point of view: a need which is all the more imperative in view of the fallacies of generalization that can arise through the recommendation of policies which may be appropriate for individual countries but which are counter-productive for the group of countries as a whole. Hence, solutions of the debt problem, call not only for national policies promoting the necessary economic adjustments and measures by the creditors to lighten the burden of the debt, but also for modifications in the international monetary and financial systems, as well as in world trade.

## *2. The monetary system and the debt: stabilizing mechanisms*

There is already recognition of the lack of symmetry in the international monetary system in relation to adjustment policies. This defect increases the burden that falls on the debtor countries, which are subject to effective stimulating or dissuasive mechanisms. The problem of asymmetry is, in the final analysis, a problem of the power that the official international agencies can exercise over their members. Hence it is an extremely difficult one to solve in practice. Nevertheless, it is important to recognize the

existence of this asymmetry in order to seek solutions which, without having an adverse effect on the interests of the creditor countries, will alleviate the problems of the debtor countries. In view of the nature of the problem to be solved, it is desirable to strengthen the existing mechanisms, while creating others designed to increase the financing available from the official multilateral agencies, and to perfect machinery to soften the effects of external events on the economies of the developing debtor countries.

Increasing the resources available from the multilateral agencies would make it possible to offset the procyclical behaviour of the present financial flows and stimulate the contribution of resources by private institutions in the international market to these countries. At the same time, it would enable more rational conditions to be established for the granting of loans.

This last aspect is of the greatest importance, since the conditionality applied by the official multilateral agencies for the use of their resources is closely linked with the resources at their disposal: the more limited they are, the more rigorous and generally more recessionary is the conditionality applied. The more limited the resources, the shorter is the time in which the adjustment must be carried out, which makes it more drastic. If the adjustment is not carried out on a symmetrical basis whereby the creditor countries contribute to it through their own policies, the greater will be the demands to be met by the credit available for relieving the burden on the debtor countries.

As regards the shock-absorbing mechanisms, it should be noted that two such mechanisms of general application have been established since the Second World War, both under the aegis of the International Monetary Fund: the compensatory financing facility for falls in export income and the oil facility; the latter functioned only as a transitory mechanism that provided resources in the years 1974-1975, and it ended its operations in mid-1976.

A third instrument is the subsidy account destined to reduce, for low-income countries, the cost of using the resources of the supplementary financing facility of the Fund.

Finally, the buffer stock financing facility has been little used and only in relation to two products, tin and sugar.

Because of the limited financial resources available, all these mechanisms have included a set of very restrictive conditions governing their use. They were conceived to solve problems of individual countries or products, on the assumption that the economy as a whole would maintain a normal financing. Apart from these mechanisms, others are needed to act as automatic stabilizers in the case of global problems, and particularly the following three: variations in international interest rates, fluctuations in the terms of trade, and the procyclical behaviour of external financing.

The variations in international interest rates have exceeded all expectations. These rates rose abruptly in 1980-1981, reaching levels three or four times higher than those recorded in previous years, after which they fell to a little less than half their maximum levels. Real interest rates followed the movements of nominal rates, although today they are three times as high as the historical rates. In view of the growth of the foreign debt of the developing debtor countries, especially in Latin America, in comparison with almost any variable of scale, together with the change in the composition of the debt into one with a variable rate, the changes in interest rates have a very marked effect on the external and internal equilibrium of the debtor countries.

Mechanisms to soften the effects of interest rate variations on the economies of debtor countries can take numerous forms. One possibility is the extension of the coverage of the International Monetary Fund's compensatory financing facility to include rises in international interest rates above a certain specified level (for example, a movable ten-year average). At the end of 1985, each percentage point of variation in the interest rate signified almost US\$ 6 billion for the developing countries as a whole. Formulas applicable at the national level might also be employed, such as automatically capitalizing interest payments above a certain limit. This type of formula at the national level has already been mentioned in earlier pages.

In the case of variations in the terms of trade, action would need to be taken in three directions. The first, already mentioned, would be to extend the coverage of the International Monetary Fund's compensatory financing facility. To give a rough idea of the sums involved, suffice it to say

that the 16.5% fall in the terms of trade for the Latin American and Caribbean countries between 1980 and 1985, has reduced the purchasing power of their exports by US\$ 300 billion over the said period.

The second relates to the access of the goods produced by developing countries to the main world markets, the aim being to facilitate the diversification of production and exports in these countries and to avoid transferring to them the cost of market protection in the industrialized countries.

Finally, as regards the procyclical behaviour of external financing, it would be necessary to study the relaxation of the debt-capital ratios of the multilateral development financing agencies, so that they could speedily enlarge their operations at moments of retrenchment of the private markets and reduce them when these markets expanded more vigorously. By relaxing the debt-capital ratio, the international agencies would be able to acquire in the markets the resources which the developing countries are not in a position to obtain, at this stage of the process, as experience has shown.

Naturally, the introduction of automatic stabilizing mechanisms will become less urgent, and even perhaps unnecessary, if symmetry can be achieved as regards the adjustment efforts of the creditor and debtor economies. As this seems very difficult to attain, however, the stabilizing mechanisms, or their absence, will have a powerful influence on the world economy in the coming years.

### *3. The monetary system and conditionality*

Controversy over the conditions on which these agencies are prepared to lend their resources to their member countries recurs whenever these resources become scarce. Likewise, the willingness of the countries to apply adjustment policies that follow the traditional rules of these institutions is in direct proportion to their need to obtain new resources.

Between 1975 and 1982, the period of abundance in the international financial markets, the analysis of conditionality was set aside, to appear again abruptly when the net financial flows to the debtor countries were halted.

From the standpoint of the multilateral agencies, the conditionality must be such as to

permit the functioning of the economy at a level of activity compatible with the resources available within the context of a given situation of the world economy. From the standpoint of the countries using the resources of the multilateral agencies, however, this view of the problem leads to a contraction of economic activity and employment which is often unsustainable. As a higher level of economic activity would usually call for greater financial resources from abroad, the incompatibility of the two criteria is obvious. Although there is a certain margin for growth by saving financial resources through the application of policies that discriminate between different uses of the resources, this margin is generally limited and does not last for long. In a world economic and financial system that is asymmetrical in applying the discipline of adjustment, the limited availability of the resources is what determines the conditionality applied, so that the multilateral agencies can hardly take into consideration the growth needs of the countries. With insufficient resources, any conditionality will inevitably be recessionary. Even that which aims at producing structural changes to improve efficiency will have this character, since these changes also require time and financing.

In a world in which an asymmetrical adjustment mechanism is operating, only an increase in available financing and the introduction of stabilizing mechanisms can minimize the recessionary effects of the conditionality.

The lack of finance on appropriate terms introduces an inevitable recessionary bias into the conditionality. Such conditionality, which has to be formulated within the framework of the real functioning of the world economic system, could be modified, however, to the extent that the multilateral financing agencies succeed in playing the anti-cyclical role which belongs to them and if appropriate stabilizing mechanisms can be introduced into the economic system. As the IMF has done to a limited extent in recent years, it is the task of the multilateral financing agencies to play a very active part in procuring funds to finance adjustment programmes that do not involve drastic falls in the per capita product and do not increase unemployment. These programmes will certainly not be of a stereotyped nature, since they must take into account the special features and economic and social priorities of each of the countries requiring resources. With more adequate funds, however, conditionality and growth cease to be opposing options.

### Annex

#### MODEL USED IN THE SIMULATION EXERCISES

##### A) *The model:*

From the fundamental equations of the product we have:

1.  $Y = C + I + EX - IMP$  where:  
 $Y$  = Gross domestic product  
 $C$  = Domestic consumption  
 $I$  = Gross domestic investment  
 $EX$  = Exports of goods and services  
 $IMP$  = Imports of goods and services.
2.  $Y - C - I = EX - IMP$ , but
3.  $Y - C = A$   
 where:  $A$  = Total domestic saving.
4.  $I - A = IMP - EX$   
 Moreover, we define the growth of the debt as a function of:
5.  $dD = INT + IMP - EX$   
 where:  $D$  = Total external debt

$INT$  = Payments of interest to the exterior

$dD$  = Annual growth in  $D$ .

Replacing (4) in (5) and dividing by  $D$ , we have:

$$6. \quad \frac{dD}{D} = \frac{INT}{D} + \frac{I}{D} - \frac{A}{D}$$

where:  $\frac{INT}{D}$  = interest rate (and other expenses) actually paid on the debt.

Multiplying and dividing (6) by  $Y$  as applicable, we have:

$$7. \quad \frac{dD}{D} = i + \frac{Y}{D} \left[ \frac{I}{Y} - \frac{A}{Y} \right]$$

where:  $i = \frac{INT}{D}$

B) For the purposes of the simulation the equation simulated was defined on the basis of (7):

$$\frac{\Delta}{Y} = \left( i + \frac{Y}{D} \frac{I}{Y} - \frac{dD}{D} \right) \frac{D}{Y}$$

In the exercise the following conditions were assumed:

- A growth rate of the product of 4%.
- Investment/product ratio needed equal to 20%.
- External interest rates of: 12%, 10%, 8%, 6% and 4%.
- Debt/product ratio of 1.0, 0.7 and 0.5.
- Growth rates of the debt of 7%, 3% and 0%.
- Growth rate of imports given by:

$$\frac{\Delta M}{M} = n \frac{\Delta Y}{Y}$$

where: n = Product elasticity (cyclical) of imports.

The (cyclical) elasticity was obtained by means of an econometric estimate for the period 1970-1985<sup>a</sup>.

g) The growth of exports is given by:

$$1) \frac{I}{Y} - \frac{A}{Y} = \frac{IMP}{Y} - \frac{EX}{Y}$$

$$2) \frac{EX}{Y} = \frac{IMP}{Y} - \frac{I}{Y} + \frac{A}{Y}$$

<sup>a</sup>The function used to estimate the (cyclical) product elasticity of imports was:

$$\hat{M} = a + b_1 \hat{GDP} + B_2 \hat{GDP} \hat{REC} + c \hat{TC}$$

where: M = Imports  
 GDP = Gross domestic product  
 GDPREC = Dummy · GDP dummy = 1 if  $\hat{GDP} < 0$   
 = 0 if  $\hat{GDP} > 0$   
 TC = Real exchange rate applicable to imports

The sign ^ indicates growth rate.

We know that:

$$3) \left( \frac{\hat{EX}}{Y} \right) = \frac{EX}{Y} \frac{(1 + \hat{EX})}{(1 + Y)}$$

$$4) \left( \frac{\hat{EX}}{Y} \right) (1 + Y) = \frac{EX}{Y} (1 + EX)$$

$$5) EX = \left[ \left( \frac{\hat{EX}}{Y} \right) (1 + Y - 1) \right] \frac{Y}{EX}$$

where the sign ^ indicates growth rate.

All the variables are measured in dollars at current prices.

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## From austerity measures to structural adjustment

*Lucio Geller and  
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The decade of the 1980s already has considerable experience of economic policies to cope with the crisis and its consequences, experience which should serve as a mandatory reference point for the formulation of new action strategies. This is what the authors do as they make a critical assessment of the policies pursued, as an introduction to their own proposal.

They begin by considering "recessionary adjustment", describing its assumptions, measures and tools and the rounds of renegotiation which this policy has produced. They acknowledge the considerable reduction of the external deficit but stress the high cost in terms of product, employment, wages and investment and the inability of this policy to improve the terms of the debt; all of this has arisen, in particular, from the mistaken forecasts about the development of the international economy, from the policy's weak theoretical basis and the use of unsuitable instruments.

Given this failure, other policy options have been formulated to cope with the debt problem, such as the Baker Plan, and these too are considered. The authors argue that it is not possible to devise a universal solution because of the great variety of factors in play and the different ways in which they affect the countries of Latin America, but they stress the fact that the present external debt cannot be either paid or collected and the need to make full use of payment mechanisms which involve a depreciation of the capital.

In their final section they examine the main aspects of the "structural adjustment" proposed more recently, criticizing its excessive emphasis on the liberalization of the external sector and the role of the market, and suggesting other measures to combine the "generation of foreign exchange" with the encouragement of public and private investment, employment and satisfaction of postponed social needs.

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## I

### Introduction

Some of the international initiatives taken with respect to Latin America's external debt, in particular at the 1985 IMF meeting in Seoul, point to a change of emphasis in the adjustment strategy. The new approach focusses attention on adjustment with growth, whereas the previous one linked adjustment with stability. The first approach does not replace the second but reinforces it. It is therefore interesting to look back in the analysis of the crisis and extract the main lessons of the adjustment policies pursued in recent years.

As usual, the first topic which must be considered in connection with the financial crisis is that of the responsibility for the present situation. The analysis of the debt process over the past decade shows clearly that the responsibility is shared by debtors and creditors. In particular, the 1980 situation was caused by the reluctance of the Latin American countries to make the necessary adjustments after the first oil crisis (1974-1975). The majority of the countries of Latin America passed through the crisis without any reduction in production, employment or wages, this being achieved thanks to the high level of international liquidity, the low level of debt which the region's countries had at that time, and the low inflation rate in the OECD countries. The developing countries were attractive customers for the excess of liquid resources in the international financial system originally produced in petrodollars. This financial liquidity was channelled through the private international banks, thus changing the traditional nature of Latin America's external financing. Private financial flows began to predominate and this led to changes in the terms of the loans. The interest rates were variable and higher, and the repayment periods shorter. These debt modalities were rationalized as being a correct trend, for it was assumed that the private sector would spend these resources on productive activities which would generate the foreign exchange needed to meet the repayments.

The second oil crisis (1979) found the world economy and the Latin American economies in very different situations. Inflation was higher and sustained in the OECD countries, and the economic policy of the United States gave priority to stabilization, a goal pursued primarily by monetary methods. Consequently real interest rates climbed sharply. Moreover, the Latin American Governments had the worst of both worlds: inflation was accelerating in their countries, their indebtedness was much higher than in 1974, and the cost of external financing had increased considerably. What was even more serious, the external funds were out of phase: instead of increasing when they were most needed they declined at the first signs of the difficulties of the countries of the region in servicing their debts (PREALC, 1985a).

The international financial community began to realize the dangerous situation of debtors and creditors when Mexico announced in August 1982 that it was unable to meet the payments on its external debt. The first reaction to the crisis was to blame the debtors, in particular for their mistaken economic policies and irresponsible use of external resources. The solution adopted at that time was based on two main assumptions. Firstly, since the situation was the result of wrong behaviour on the part of the debtors, they should bear the whole cost of the adjustment. Secondly, the crisis should be handled as a problem of lack of liquidity and not of insolvency, so as to avoid the financial panic. In other words, there was a cash-flow problem but the debtors would be able to pay the debt servicing as long as they made the appropriate adjustments in their economies.

The adjustment proposed was to correct the external imbalance in accordance with forecasts that the traditional forms of adjustment would be successful, on the assumption that international trade would recover and interest rates decline. It thus had to be hoped that Latin American exports would increase both in volume and in price, while the restrictive domestic policies would hold imports down. At the same time, the adjustment of domestic prices would shift resources from the production of non-marketable goods to the production of exportable and imported goods. In a few years the region would be in a position to generate the current-

account surpluses needed to avoid a collapse of the international financial system.

In order to make this forecast probable it was necessary for the parties involved in the debt crisis to commit themselves to the reprogramming of the debts. From 1982, indeed, all the countries of Latin America took part in this exercise, which involved postponing the repayment of capital and in some cases accepting delays in the payment of interest.

By the beginning of 1986 there had already been three debt-reprogramming rounds of differing kinds (Devlin, 1985). There was some improvement in the terms of payment, although still insufficient for the recovery of the Latin American economies. The cost of the reprogramming declined from 2.25% in the beginning to an average of 1.38% above the LIBOR rate. The repayment periods were extended and they now range from 10 to 14 years. No commissions were charged in several of the latest negotiations, although they were the general rule in the first two reprogramming rounds. The grace periods have been extended and they are now six years in the case of Mexico and Venezuela. The reprogramming has covered up to 65% of the debts owed to private banks. Although the participation of the International Monetary Fund has been important in these transactions, there were a few cases which did not require a prior agreement with that body concerning negotiation with the private banks. However, very little progress was made with respect to "new money". The new loans obtained in the 1985 negotiations did not reach the 1984 figure and, in any event, they were lower than the total interest paid by the region. This means that for the fourth year in succession Latin America is making a net transfer of resources to the international private banks (ECLAC, 1985).

In short, it was clear who should pay the debt and how payment should be made. The Latin American countries were to bear the burden of the adjustment, which would be achieved by modifying their levels of activity to restore external balance. The creditors would assist in this process by agreeing to reprogramme the debts under the supervision of the IMF but without sacrificing their profits. Indeed, according to Foxley (1985), the private banks had recovered the position they occupied before the crisis

by the middle of 1985. This improvement was achieved by reducing the volume of new loans and the reinvestment of a higher proportion of profits to cover the risks of bankruptcy of the debtor countries. Meanwhile, since the crisis

erupted the big commercial banks of the United States had seen an increase in their profits, in their share prices and in their dividends (Joint Economic Committee, Congress of the United States, 1986).

## II

### The effects of adjustment with stability

The majority of the Latin American countries followed the internationally agreed recipe and proceeded to reprogramme their debts and apply adjustment policies in accordance with the traditional criteria. Good results were obtained in the restoration of the external balance. In fact, the current-account deficit in Latin America's balance of payments declined from US\$ 27 700 million in 1980 to US\$ 2 600 million in 1984. As a result, the balance of payments began to produce most of the resources needed to service the external debt. The next question is how was this possible.

Although the traditional adjustment model was followed, the basic assumptions concerning both the international scenario and the prescribed policies did not prove correct. There was no significant recovery in the world market. The interest rate did not decline to levels which would compensate fully for the deterioration in the terms of trade. As a result, Latin American exports have not increased since 1982. The adjustment was achieved by means of a sharp reduction of imports, which by 1983 had declined by 43% in comparison with 1980. This decline was the result of the austerity policy pursued in that period which produced a fall of 9% in Latin America's per capita GDP.

This domestic austerity in turn affected the labour market (PREALC, 1985a). The decline in activity meant a slower rate of job creation and therefore a higher level of *open unemployment*. This open unemployment climbed to 11% by 1985. The increase was bigger than the figures suggest. On the one hand, the historic trend for the rate of open unemployment to hover around 7% came to an abrupt end. On the other, this

increase occurred at the same time as a fall in the participation rates as a result of the lack of job opportunities. According to the information for some countries, if the participation rates had not declined, the rates of open unemployment would have been 1% higher. Lastly, there was a change in the structure of unemployment: there was an increase in the participation of heads of family and, in general, of the more active age groups, and unemployment lasted longer. Those most affected were women, young people and persons in the older age groups.

There was also an increase in visible underemployment, measured primarily by the number of hours worked, which indicates an underestimate of open unemployment. The information available for some of the countries of the region indicates that open unemployment should be adjusted upwards by 1% as a result of the visible underemployment.

Another consequence affecting all the countries of Latin America was the drop in real wages—a result to be expected since wages were originally seen as a decisive factor in the traditional adjustment policies. The reduction of real wages has several purposes in this adjustment model: to re-establish balance in the labour market; to restore international competitiveness; to reduce inflationary pressures; and to cut back effective demand. The decline in real wages—caused by rapid inflation which eroded nominal wages—was also a result of the weakened negotiating power of labour organizations affected by the higher rate of open unemployment.

In addition, there was a rapid increase in the occupations most vulnerable to underemployment, such as those in the informal sector, the

public sector, small businesses and services. The corresponding average incomes also declined. The importance and the interrelationship of these employment and income factors were different in each country. In some countries, the effect of the adjustment was felt mainly in an increase in open unemployment and in lower real wages, while in others its main effect was on employment in the sectors mentioned. The redistributive impact of these different forms of adjustment varied in each situation. The weakest redistributive effect was produced in those cases in which the adjustment led primarily to an increase in open unemployment. The least harmful results were produced when the adjustment was achieved by means of increases in informal employment and declines in average incomes. This latter form of adjustment operates as an unemployment insurance paid by the poor in the countries which do not have protection systems.

Lastly, the crisis jeopardized future employment levels by reducing public and private investment. Public investment suffered as a result of the decision to correct the fiscal deficits, and all the more so in those countries which showed the greatest reluctance to reduce public expenditure. Roads, bridges, railways, storage facilities and basic services in the urban centres deteriorated without the necessary reinvestment being made in the majority of cases. The same

thing happened with private investment, especially in machinery and equipment. It is not easy to recover the lost ground: businessmen are anything but optimistic and real domestic interest rates are high. The way out of the crisis which combines the solution of the debt problem with an increase in employment levels depends on our countries producing more, i.e., on their making better use of their productive resources and investing on a sustained basis.

In 1984 there was an improvement in Latin America's indicators, but this was not repeated in 1985. Following the recovery of the world economy, mainly in the United States, economic activity revived in Latin America and was accompanied by increases of 11% in the value of exports and 5% in the value of imports. However, the 1985 figures show a discouraging development in the countries of the region as a whole which is all the greater if Brazil and Cuba are excluded from the calculations. The volumes of exports and imports declined in that year, the terms of trade deteriorated, and the growth rate of the per capita product was negative if those two countries are not included (ECLAC, 1985).

Furthermore, no result for 1984 and 1985 shows an improvement in the conditions in the labour markets. Some countries achieved reductions in open unemployment, while in others the situation continued to deteriorate. In the majority of the countries for which information is available real wages continued to fall.

### III

## Adjustment with stability: the lessons of experience

The readjustment policies laid down in the debt reprogramming did not have the predicted results. While it is true that the external imbalance was corrected, this was achieved only at a high domestic price paid mainly by the poorest sectors. This failure can be attributed to mistaken calculations and unforeseen factors in the analysis of the possible international situation and to the faulty theoretical bases of the adjustment policies recommended.

The world economy did not recover as forecasted in the 1982 and 1983 studies. The increase in the volume of Latin American exports was fully offset by the deterioration in the terms of trade. Although the indicators recovered in 1984, the process was not sustained and proved insufficient. The interest rate remained at intolerable levels during the first years of adjustment.

The financing of the fiscal and external imbalances of the United States led to a high interest rate (which was swiftly transferred to the international financial market) and to the overvaluation of the dollar. The United States became the principal debtor in the world economy, even when only the foreign creditors are taken into account. The overvaluation impaired the international competitiveness of United States production. The result is an imbalance in the external accounts which will have to be corrected when the loans mature. The United States also has domestic problems in sustaining the level of activity and employment (Bergsten, 1985; Tavares, 1985). An initial change in the economic policy has produced a *de facto* devaluation of the dollar by means of intervention agreements with the monetary authorities of the central countries in the money markets. More recently monetary policy has been made more flexible in order to permit a reduction in interest rates. Both actions are designed to sustain the expansion of the United States economy. In addition, the United States Congress has been under growing pressure to set up protectionist barriers. If it yields to this pressure, the other industrialized countries will certainly take counter measures. In any event, the volumes and prices of Latin American exports would be harmed as happened in the case of Argentina's agricultural exports when the United States Government decided to protect its farmers with subsidies. In short, the directions taken by United States economic policy will affect international developments in the near future.

The uncertainty about the economic policy of the central countries, and of the United States in particular, has introduced an element of inefficiency in the reprogramming of loans, for the creditor countries have not been obliged to create favourable international conditions to solve the debt problem of the developing countries. Some signs of recognition of this uncertainty began to appear recently: the reprogramming agreement signed by Venezuela with the private banks included a contingency clause providing for a new reprogramming exercise in the event of further falls in the oil price. For the same reasons Mexico too has tried to negotiate with the IMF to ensure that its latest adjustment programme should include anticyclical loans.

Another factor which impaired the efficiency of debt reprogramming was the wish of the international private banking system to accept only new timetables for cash flows. Even for so little the price was high. The private banks increased the margin added to the LIBOR rate and introduced an additional financial charge for renegotiation. Moreover, in the majority of cases the private banks obtained public guarantees of earlier loans even though they had been made to the private sector of the Latin American countries. These benefits were not accompanied by new loans. On the contrary, there was a clear reduction in the new funds made available by the private banks, taking into account the need to reduce their net participation in investment, the increase in bank reserves and the increase in loans merely for the payment of interest (Foxley, 1985). It was against this background of uncertainty and contraction of international lending that the IMF tried to impose its conditional terms. The second lesson to be drawn from the application of the policies of adjustment with stability is that the basic theory did not correspond to reality. When a country has an external imbalance, the traditional analysis assigns the blame to an excess of domestic expenditure and the loss of international competitiveness when changes in the exchange rate and domestic inflation are out of phase. The solution proposed is to reduce expenditure by means of policies of monetary and fiscal restraint and to restore competitiveness by adjusting relative prices to promote the production of marketable goods. The main tool for attainment of this latter objective is devaluation. This traditional approach was then extended to include situations in which the current-account imbalances resulted from internal problems (increases in real wages above increases in productivity) or external ones (deterioration in the terms of trade). The combination of policies does not differ greatly in either situation, except that in the case of external factors the monetary and fiscal policies should not be so restrictive as to soften the impact of the decline in real wages on the production of non-marketable goods (Ahamed, 1986).

It was originally maintained that the recession and the regressive distribution of income resulting from the fall in real wages were not necessary results since devaluation acts as an

incentive to export and thus becomes a force for economic expansion, and since the changes in relative prices in favour of marketable goods do not necessarily entail an increase in the cost of living, which is the representative indicator used in the analysis of real wages. This theoretical and practical stance was called in question as soon as its assumptions were analysed in the context of the Latin American economies (PREALC, 1985a and 1985c; Meller and Solimano, 1985).

The Latin American countries have a high degree of structural heterogeneity, which means that the differences in productivity between and within sectors are higher than in the central economies. There is thus little elasticity in supply and this means in turn that the production system is slower to react to policy changes. The traditional theory holds that the production system is very sensitive, but the positive effects of expansion and reallocation of resources are not felt in the short term. This conclusion leads to the second argument about the effects of devaluation.

It is obvious that the package of adjustment measures would definitely promote recession unless it included devaluation as a tool of expansion. However, some studies on Latin American countries indicate that the expansionist effect of a devaluation is not felt for two years, so that it produces recession in the short term.

There are several reasons why economies do not react immediately and positively to devaluation. Devaluation is less effective in a situation of universal international recession and growing protectionism and when it is used at the same time by the majority of the debtor countries in urgent need of foreign exchange. Moreover, the foreign trade structure of the Latin American economies is dominated by exports of commodities and foodstuffs which have poor demand elasticity. Manufactures still represent a small proportion of total exports. This reduces the effect of devaluation on exports. In the case of imports (with the exception of certain countries in which consumer goods represent a substantial proportion), the main components are raw materials, intermediate products and capital goods. Domestic demand is relatively unresponsive to prices and the only means of reducing these imports is to cut back production. If the price elasticity of the trade balance is low and

does not meet the Marshall-Lerner condition, devaluation worsens the trade balance in the short term. Lastly, devaluation has a further restrictive influence on effective demand. On the one hand, consumer prices move in step with the devaluation and real wages fall unless money wages are fully indexed. Since this is rarely the case, effective demand declines. On the other hand, the inflationary effect of devaluation produces a rise in interest rates. Since the greater part of the private sector is heavily indebted in the national currency and in dollars, the devaluation means an increase in financial costs. The private sector cannot react by increasing production because it has to cope with these financial restrictions aggravated by the limitations imposed on monetary expansion.

Another problem of these adjustment measures is their lack of selectivity. This produces excessive contraction. The proposed policies are based on the use of a few universal instruments. However, owing to structural differences, some sectors will receive excessive profits while others will not have enough. This example is very clear when devaluation is used as a means of stimulating exports. It can be redundant in the case of traditional exports but insufficient to promote exports of manufactures.

Some recent works have concluded with a partial recognition of the force of these criticisms. For example, it has been accepted that the effects of devaluation on production are uncertain and depend in the end in the structure of the economy and the terms of the devaluation. In other words, the question is empirical rather than theoretical (Ahamed, 1986). Other analyses accept that the adjustment programmes reduce short-term absorption but argue that this contraction should not be seen as a cost since the affected economy was engaged in a process of rapid but unsustainable growth. The adjustment programmes ought to set the economies on the road to stable and sustained medium-term growth by means of the incentives which they offer for saving and domestic investment (Khan and Knight, 1985). However, the validity of this proposition has not been verified. Saving does not seem to be very sensitive to the interest rate and large increases would have to be made in that variable to produce any change in the saving coefficient. Furthermore, even allowing that

saving increases, it is not clear that they go into investment if the interest rate remains at very high real levels. This possibility has been recognized but only for the short term; beyond that, the time relationship between saving and investment would have beneficial effects on medium-term investment, always provided that the economic policy ensures that the interest rate remains positive (Molho, 1986). The temporal connection between saving and investment is probable in the case of a normally imbalanced

situation, but improbable in the present critical conditions when increases in saving go on the payment of interest on the external debt. These considerations would suggest that a theory of stable and sustained growth would be better served by an investment theory which places greater emphasis on profit factors and frees the interest rate from its function of adjusting the balance of payments and shifts it to this appropriate sphere of investment decisions.

## IV

### Adjustment without settlement of the external debt problem

The negative effects on production and employment generated by the adverse international conditions and the adjustment strategy adopted to cope with the problem of external debt were not accompanied by any significant improvement in the debt indicators.

The ratio of external debt to exports for the whole of Latin America remained at the same high level (4.0) in 1985 as in 1983 (3.9). The indicators for Argentina, Chile, Mexico and Peru were higher than these averages and deteriorated between the two years. In contrast, the increases in the exports of Brazil and Colombia brought about an improvement in the ratio in this period.

The differences between countries suggest a need for a case by case analysis which cannot be undertaken in this paper. The following considerations apply therefore to the region as a whole. The performance of the ratio of external debt to exports is attributed to a reduction in the growth rate of the central economies and a decline in international commodities. A recent study argues that the minimum growth rate of the industrialized countries would have to be 4.5% for the exports of the debtor countries to recover (Massad, 1985). In the first forecasts prepared to assess the viability of solving the debt problem by exclusively market means it was concluded that a growth rate of 3% in the central economies would be sufficient to stimulate the exports

of the debtor countries (Cline, 1983). The growth of the OECD countries was originally estimated at around 3% for 1986, an estimate which seems very optimistic in view of the sluggish performance of the United States economy in the first half of the year. In these circumstances, the prospects of Latin American exports do not seem very rosy.

Of even greater importance than this financial indicator of the capacity to pay is the ratio of external debt to gross product, which measures the debt burden on the production capacity of the debtor countries. Between 1983 and 1985 Latin America's external debt increased by 7%, while the gross domestic product increased at a slower rate (6%). The indicators for Argentina, Chile and Peru showed a tendency to decline, while those for Mexico, Colombia and Brazil, especially the latter two countries, showed an improvement.

It can thus be concluded that the liquidity and solvency indicators (measured partly by the two ratios mentioned above) have deteriorated for the region as a whole. The heterogeneity of debt situations is evidence, in any event, that the criteria used up to now do not have universal validity as means of solving the debtors' problems. Even for Brazil and Colombia the net payments of profits and interest remain a very heavy burden on their exports and their gross domestic product. The fact that some countries

have improved their debt situation does not excuse the international community or the debtor countries from the obligation to take more decisive action to solve this problem.

The issue of external debt seems to be bogged down. If the debtor countries, or some of them, decided to interrupt payment of debt servicing, the counter measures taken by the creditors might affect the growth rate of exports and the gross product of the countries concerned. The interruption would in turn lead to a devaluation of the bank loans, which could be re-bought by the debtor countries. This result came about in fact in the 1930s and laid the foundation for the importance which the Latin American countries attach to their financial commitments. Most of the studies conclude that the costs associated with a moratorium are higher than the benefits, for the uncertainty about the chain of actions and reactions set in motion by a moratorium adds a greater specific weight to costs (Krugman, 1985; Simonsen, 1985). However, as Díaz-Alejandro (1985) has pointed out, a unilateral moratorium is becoming increasingly attractive in the light of the meagre progress achieved in the overall situation and the forecasts of stagnation up to the end of the present decade.

If on the other hand the interruption of the payment of interest and capital was not unilateral but agreed between debtors and creditors for a determined period, as Prebisch suggested to the United States Congress, in order to enable the debtor countries to resume their growth, it would take a long time for the solvency and liquidity indicators to return to their historical levels. This period is in direct proportion to the initial magnitude of the ratio of external debt to gross domestic product or exports, to future interest rates and to the objective difficulties of restoring growth or winning external markets, and it is in indirect proportion to the international inflation rate. However, this solution is not attractive to the international banks which would have to lend involuntarily at a rhythm determined by interest rates.

The private creditors, for their part, insist that the debtor countries should generate a surplus on their trade balances sufficient to pay the interest at least, and they are not prepared to make new loans. In the banks' view, the international inflation rate and the growth rates of the

gross domestic product or exports, no matter how low, would help to improve the solvency and liquidity of the debtors. It is clear that this approach assumes that the repayment of the debt should be completely reprogrammed and brought into line with the fact demonstrated by experience that the present external debt cannot be collected or paid. The key factor determining whether the debtor countries can bear the debt is a reduction in international interest rates. A certain downward trend is visible in the money markets of the central economies, especially since the United States Monetary authorities agreed to relax some of the criteria governing the expansion of the money supply in the light of that country's present economic weakness. However, this process takes time, for the reduction of interest rates requires co-ordination of the monetary policies of several central countries. Unilateral action by the United States would be incompatible with the size of its fiscal and external deficits, which require financing from the rest of the world. In addition, this process has a lower limit determined by the difficulty of correcting these United States deficits, since its economy has lost its external competitiveness and its authorities are persisting with the political policies underlying the fiscal imbalances.

But this is not the whole story. It has always been maintained, and it remains true, that the growth capacity of the Latin American countries depends to a large degree on their import capacity. This means that harmonization of the strict payment of interest and an increase in import capacity depends on the growth of exports. Increased exports are dependent to a large extent on the growth capacity of the central economies and on their political will to remove the protectionism affecting the exports of the debtor countries. It is doubtful whether this growth can take place at an adequate rate, and there is little manifestation of the political will to achieve this. If the debtor countries sought to overcome these difficulties by limiting the payment of interest to a fraction of their exports, the private international banks would be compelled to lend against their will, and this would run counter to their policy of reducing their net participation in lending to the developing countries.

As can be seen, the solution of the external problem is subject to such a large number of

variables that it is very difficult to guarantee a universal solution. A lower oil price helps to reduce inflationary pressures and leads to lower interest rates. These results are favourable to the debtor countries, especially for oil importers, but harmful to oil exporters, and they also bring about a reduction of international liquidity. A monetary policy designed to bring interest rates down benefits the debtor countries, always provided there is no reaction against stagnation or recession in the central countries to cancel out the advantages to the developing countries. The lack of a universal solution should be acknowledged through a greater supply of new credits, but the private banks do not seem disposed to grant them. The result is clear as the day: the solvency and liquidity indicators are stationary for all the debtor countries; the contradictory situation has been reached in which the developing countries are transferring real resources to the developed countries (US\$ 100 000 million in the last four years); the joint responsibility of debtors and creditors is a dead letter.

The Baker Plan, presented by the United States Treasury Secretary in October 1985 in Seoul, acknowledges this situation: the proposal admits that there is no solution to the problem without additional liquid resources. The structural changes needed if adjustment with growth is to happen require new financing. The increased liquid resources and the reprogramming of the debts imply a policy of partial refinancing of interest. The Baker Plan is also designed to strengthen conditionality, giving greater weight to the World Bank and to the regional multilateral lending institutions. It is proposed that the World Bank should maintain closer collaboration with the IMF in the allocation of its loans. In these conditions it would be possible to increase the loans of the multilateral banks to the main debtors by about 50% in the first three years of the application of this policy, without any need to call for new inputs of capital for these institutions. The World Bank would also act as guarantor of investments involving non-commercial risks through a recently established body (Multilateral Investment Guarantee Agency (MIGA)).

The World Bank has been making structural adjustment loans since 1980, but the Bank's administration has imposed restrictions on these loans, which may not exceed a limit 10% of

new commitments or represent a significant proportion (more than 30 to 40%) of the loans made to each country (Bacha and Feinberg, 1986). In consequence, the World Bank made only 16 transactions of this kind in the first five years, and seven of them concerned five Latin American countries (Bolivia, Guayana, Panama, Costa Rica, and Jamaica on three occasions). This small number of transactions was not due only to the earlier decisions of the World Bank, which it is now trying to correct, but also to the fact that the developing countries were not very anxious to commit themselves to a double conditionality. The structural adjustment loans require that the recipient countries shall have entered into commitments with the IMF and they have recently been the object of increasing demand from several other countries of the region.

From the point of view of the multilateral lending institutions, this greater insistence on structural adjustments is justified. The IMF began to concern itself with these matters in the 1970s when it became apparent that many external imbalances were not the result of an excess of demand or of faulty management of foreign-exchange policy, but rather of problems of supply resulting from the failure of certain economies to adapt to the changes occurring in the international economy. However, the IMF could not delve deeply into these matters for various reasons —realizing, for example, that the political difficulties of negotiating with the countries which sought its loans would be fewer if it did not encroach on their sovereignty by going into the details of the goals and tools of economic policy. Its operations would be easier if the discussions were limited to global goals and tools. Furthermore, in its lending practice the IMF had not developed the necessary experience to tackle all the problems connected with the increase of global supply.

The sectoral loans of the World Bank had always been subject to conditions, but the reforms which it recommended had to be in keeping with its mandate of promoting the development of productive resources. For this reason, the Bank's theoretical and professional practice was not capable of replacing the IMF when the external imbalances were caused by factors not connected with supply.

Some of the contradictions could be removed by means of complementary action and cooperation between the two multilateral institutions. For example, the World Bank required Argentina to reduce its export duties before agreeing to a loan for that country's agriculture negotiated in 1986. Realizing that this measure could prejudice the commitments signed by Argentina with the Fund to reduce its fiscal deficit, the Bank devised another measure: replacing export duties with a tax on income from landholding. Furthermore, many debtor countries are not prepared to enter into agreements with the IMF but they would be less unwilling to do so with the World Bank. These new trends are not without their difficulties. The IMF authorities do not seem very willing to participate in the monitoring of structural adjustment programmes in which it has not played a leading role. Nor are the World Bank's conditions easy for the debtor countries to accept—in particular, the Bank's objections to State enterprises, its desire for rapid adjustments, its habit of promoting far-reaching reforms without adequate knowledge of the situation in the country concerned, and its occasional attribution of excessive importance to efficiency without taking into account the employment problem or the basic needs (Bacha and Feinberg, 1986).

But these are not the only difficulties which the Baker Plan has to overcome. There is another more contentious one: the Plan originally required the commitment of the commercial banks to offer new loans over the next three years in the amount of US\$ 20 000 million. Since the private-bank debt of the 15 main debtors covered by the Plan was US\$ 275 000 million at the end of 1984 (75 million short-term and the rest long-term),

the effort required from the banks was to increase their net participation in these investments at an annual rate of 2.5%, an apparently small increase. The net long-term credits (for periods longer than 12 months) received by the 10 Latin American countries which may opt for the Baker Plan amounted to US\$ 12 000 million in 1983 alone. However, a very large proportion of these loans was made involuntary. Furthermore, and in accordance with the World Bank's forecasts, these 10 Latin American countries would have to pay interest amounting to more than US\$ 32 000 million to the private banks between 1986 and 1988; the figures proposed in the Baker Plan are therefore difficult for the private banks to accept and insufficient for the debtor countries.

An additional difficulty in the implementation of this proposal is that it would restrict the independence which the commercial banks have had in all the reprogramming operations if another institution had to be set up to administer these financial resources. The commercial banks are very wary and not willing to commit themselves before the governments of the other central countries do so and until they are certain as to the nature of these commitments. In particular, the commercial banks are watchful of the official initiatives for commercial loans to be made on more favourable payment terms and for modification of the banking regulations to allow a greater net participation in the loans. The participation of the big banks also depends on a favourable commitment on the part of the banks (some 150 of them) which account for 85% of the external debt with private financial institutions. Meanwhile, time is slipping away and the Baker Plan is in decline.

## V

### The external debt must be settled

The original merit of the Baker Plan was its recognition of the political content of the relations between debtors and creditors which justified official intervention. Up till then, the Policy of the United States Government had been one

of non-involvement, on the ground that the issue of foreign debt was an essentially private one. The wider role assigned to the World Bank in the achievement of structural adjustment was also important. However, these advantages did

not offset the weaknesses: the Plan's content had not been discussed in depth with other creditors (hence the difficulties of instrumentation); the Plan applies to only a few countries; the new resources are clearly insufficient; and the solution includes not one original element which would bring definite relief for the 15 debtors covered by the Plan. It is not surprising that this proposal of the United States Treasury Secretary has become so diluted that he is trying to disassociate his name from the Plan.

The Baker Plan has been strongly criticized by the United States Congress. A group of experts prepared a report for the Joint Economic Committee (1986) which linked the external debt crisis of the Latin American countries with the decline in export prices and the damage caused to United States farmers, especially in the wheat, maize and soya markets. This decline in international prices was caused by the need of the debtor countries to obtain foreign exchange for their financial payments, even at the cost of neglecting the food requirements of their peoples. On the other hand, the big commercial banks in the United States have improved their profitability. A situation has been reached, the report goes on, in which the United States Government has compensated the institutions which played an important role in precipitating the financial crisis and has punished the productive sectors which bore no responsibility for it. The report says that the Baker Plan does not offer a fundamental solution representing an advance over earlier policies, for it does not focus on the true dilemma of economic growth and interest payment. The Committee's report therefore recommends reducing interest rates, limiting interest payments to a specific proportion of the export income of the debtor countries (25%), and awarding a conditional devaluation of the debts of those countries which meet these objectives (1% a year for 10 years). The report estimates that this policy could reduce the interest payments of Latin America by US\$ 12 000 million a year from 1985, which would facilitate the increase of imports without which it is difficult to sustain a development process. Another work (Orlando and Teitel, 1985) also concludes that the increase in import capacity implicit in the Baker Plan permits the Latin American countries only very moderate growth and there-

fore an expansion of employment smaller than the growth of the labour force.

It is important that reports such as the ones described should begin to be given a public hearing, as has been done by Senator Bradley and Mrs. Fitzpatrick, at a time when signs of fatigue are already appearing in the Latin American countries and are leading in some cases to greater political tensions. Peru has been declared unqualified to receive new loans from the IMF; the decision of the United States Government to sell subsidized grain to the Soviet Union has stirred up political sectors in Argentina, including the military, which are calling for a change in the strategy for the negotiation of the external debt; Venezuela had to invoke the contingency clause in an agreement concluded with private banks scarcely two months after its signature, when oil prices continued to decline; Mexico has initiated a new reprogramming exercise with the IMF and the private banks in order to cope with the low oil prices and the political requirement for a return to growth in 1987 after the contraction of 1986; Brazil has postponed its renegotiation with the Paris Club owing to the demand of its official creditors that it should conclude an agreement with the IMF, a demand which Brazil had circumvented in its negotiations with the private banks (Financial Report, 1986).

This story is repeated time after time in the other Latin American countries. Every case demonstrates that from the stand point of the national interest (which is more general than that of the private commercial banks), the external debt cannot be paid or collected. For the debt to be paid, the debtor countries would have to generate a trade-balance surplus equivalent to a net transfer of resources incompatible with their status as developing countries. For the debt to be collected, the creditor countries would have to tolerate a trade-balance deficit equivalent to a reduction by an equal amount in the profits of their productive sectors (Geller and Vuskovic, 1983). While the external debt is a dead weight in the sense that a very large part of it represents an outflow of capital, the interest payments are simply a transfer of income and not remuneration for productive services.

All the criteria used in the renegotiation of the debt, including the studies which produced

optimistic forecasts of the feasibility of servicing the debt, are designed to intervene in the free play of market forces. Given the fiction of reprogramming which merely replaces old loans with new ones without supplying new financing and of loans whose only purpose is to complete the payment of interest, the credits remain on the books at their nominal value, which is higher than the current quotations in the secondary markets. In June 1986 the promissory notes of the external debt of the Latin American countries were quoted below their nominal value (Colombia 85%; Venezuela 78%; Brazil 77%; Uruguay 72%; Chile 69%; Argentina 66%; Mexico 60%). As a matter of simple arithmetic, it would be advantageous for the debtor countries to apply their trade-balance surplus to paying off the debt instead of paying interest. The development of a secondary lending market has been opposed with the argument that the debtor countries would be given an incentive to have deliberate recourse to moratorium. This market might stop undervaluing the loans, and interest rates would be forced upwards (Simonsen, 1985). However, the accumulation of reserves by the banks means a *de facto* marking-up of

the loans. The point now is that there should be a corresponding depreciation of the debts of the countries of the region. Without this depreciation it is going to be very difficult to find a permanent solution to the problem of the external debt, especially a solution in which the banks actually assume their share of the responsibility (Geller, 1983). If this depreciation could be agreed between debtors and creditors, the cost-benefit ratio for the world economy would be increased to the maximum. It really is a question of negotiating a solution that allows this practice which is already being used by some countries (Chile is one example) to become universal, so that a part of the debt is recovered by selling assets of enterprises operating in the country to purchasers of external debt notes quoted below their nominal value in the secondary markets. For the moment, this practice implies definite advantages for certain private national sectors or the denationalization of domestic assets when the purchasers are foreign investors. It is thus necessary to find other solutions which extend these advantages to the public sector as well and reduce the risks of denationalization of enterprises in the debtor countries.

## VI

### Adjustment with growth: a review of development issues

For the moment, the political negotiations are not proceeding along these lines. From different angles the recent discussions in international circles, especially since the Seoul meeting, have placed the emphasis on structural adjustment to cope with the problem of external debt. The Baker Plan introduced other considerations, in addition to the financial ones, which we have already commented on. They acknowledge the failure of the adjustment with stability which was tried in the period 1982-1985 and, what is perhaps even more important, they recognize that any relief will be temporary unless structural changes are made. Structural imbalance has been under discussion for a long time in Latin America. The experience of the past 10 years

with the adoption of neo-liberal doctrine in the economic policy of the majority of the countries of the region, especially those of the Southern Cone, was the result of a questioning of the traditional patterns of economic development followed by those countries. The crisis interrupted the liberalization process, which was already exhibiting some of its main shortcomings. However, economic analysis since the crisis seems to be reviving the positions argued at the beginning of the 1970s without taking into consideration the nature and number of these shortcomings.

The basic goals of the proposed model are to move the economies towards free trade, which means liberalizing the external sector and allo-

wing greater play to the laws of the market. In both cases the purpose is to ensure a better allocation of resources and to enable the private sector to assume the primary responsibility in the accumulation process. These goals are permanent ones but they are now being consolidated by the crisis. It is thought that the liberalization of the external sector is the only possible way in which the countries of Latin America can generate the necessary foreign exchange to pay their external debts. Moreover, government intervention is interpreted as interference in relative prices and distortion of resource allocation. The State is thus competing with private enterprises and impairing their accumulation capacity.

The proposed policy is based on increasing exports, and a set of measures is proposed for this purpose, including currency devaluation and tariff reductions. In particular, this reduction would reduce the cost of producing exports and would oblige domestic producers to increase their productivity in order to compete with imports. An effort is also being made to reduce the public sector deficit, mainly by cutting public expenditure but also by eliminating the price controls and subsidies which produce distortion.

There is no doubt that, not only in times of crisis but also in the periods of economic growth experienced by the Latin American countries, high priority should be given to the generation of foreign exchange. There is no great disagreement on this point. The problem lies in the instruments which are recommended. As has been argued above, devaluation can have its effect limited by the characteristics of Latin America's productive systems, while tariff reduction has shown a marked bias against employment, as was clearly the case in the trade-liberalization programmes of the 1970s, particularly in the manufacturing sector.

The questioning of policies does not necessarily mean returning to the instruments of the past or to the way in which they were used. On the contrary, development thinking in Latin America is being continuously renewed and critical examination of past experience suggests that there was an abuse of protection as a means of stimulating domestic production. In particular, this universal protection did not discriminate among activities and led to the production of a

great assortment of goods with high levels of inefficiency, as well as affecting the export capacity of non-traditional goods.

However, since the world economy is not recovering the rapid growth rates of the past, access to international markets will be neither easy nor stable. For this reason alone it will not be sufficient to rely exclusively on prices to stimulate exports. International trade is increasingly conducted by means of direct negotiations between countries (the recent agreement between Argentina and Brazil is one example). Consequently, other instruments will acquire increasing importance and will have to be explicitly included in the policies. This does not mean that there is no place for the use of the traditional instruments. The question is how to do it. Of course, the main objective is to generate foreign exchange, but it is also to ensure a high level of employment, so that it is necessary to identify the activities which can offer advantages in the world markets and contribute to rapid growth in employment.

Several proposals have been put forward in Latin America along these lines, notably the proposal of French-Davis (1985) that the tools of trade policy should be used selectively. This proposal requires the selective use of tariffs, with greater protection for the activities which can generate most jobs. This will eliminate the discrimination against jobs contained in the liberalization policies. The probable cost increase which might discourage exports could be offset by a subsidy which would form part of the policies. In addition, there would have to be a high and stable exchange rate, *e.i.*, neither fixed nor entirely floating exchange rates should be adopted (to avoid in the latter case unnecessary fluctuations in this decisive price). It is therefore proposed that variations in the exchange rate should be regulated in accordance with medium-term forecasts of the balance of payments.

The second objective is based on the assumption that the private sector will react positively to a reduction in State participation. The Latin American experience does not offer grounds for optimism in this respect. Analysis of the investment process over the last 30 years (Tokman, 1985) shows the lack of independence in the accumulation process. Although investment in Latin America has been high, at least in compari-

son with the central countries, it depended very much on foreign investment and external financing. In fact, instead of the direct foreign investment of the 1950s, external financing came to predominate in the 1970s. This significant proportion of external investment or financing in domestic investment means that part of the control over the direction of the accumulation process is not in the hands of the countries of the region.

Analysis of the investment process shows that the public sector has accounted for a large part of capital formation. For Latin America as a whole the proportion of public investment in total investment has been three times higher than it was in the United States at the beginning of the century. In some countries of the region this proportion is over 50%. It can be concluded that not only have many of the decisions been taken outside the country but that internally the public sector has played a large part in the accumulation process. It can also be concluded that the private agents who supposedly ought to be the leaders in the process of economic growth have not fulfilled that function in recent decades.

These data could also be interpreted to mean that private investment was not dynamic because of excessive public intervention. The experience of the 1970s in the Southern Cone, and in Chile in particular, indicates that this interpretation and the consequent reduction of public investment prompted no reaction from the private sector, except for heavy financial speculation. The history of investment in Latin America suggests that in many countries the public sector has had to make investments in areas in which the private sector was not interested. This is certainly the recent experience in Brazil.

In the long term the lack of reaction on the part of private businesses may be accentuated by the crisis. The outward-looking strategy may stimulate a small number of businesses. At the same time, according to Foxley (1985), the micro-economic conditions are too weak to sustain investment. Companies are heavily in debt and they are paying interest rates generally two or three times higher than the international rate, and the macro-economic conditions are restricting the markets. The result is that companies are not only incapable of investing but also cannot solve their own debt problems.

Here the experience of Brazil is illuminating. The Brazilian economy is the only one in Latin America which has apparently introduced structural adjustments to cope with the increases in the price of oil (PREALC, 1985). The 1984 data on Brazil's balance of payments and the estimates for 1985 show an impressive growth in the trade-account surplus as a result both of the expansion of exports and of extensive imports substitution. Brazil was fully dependent on imported oil at the beginning of the 1970s. Oil imports were reduced from US\$ 9 400 million in 1980 to US\$ 4 800 million in 1984 by means of the heavy expansion of national production of alcohol, charcoal and coal. In addition, major substitutions were made in cement, pulp and paper, petrochemicals, fertilizers, and machinery and equipment. In fact, in some of these branches Brazil became an exporter as a result of the comparative advantages acquired (Barros de Castro, 1985).

These changes in Brazil's balance of payments are the fruit of a planned investment policy which has taken many years to mature. Throughout much of the 1970s the Brazilian Government undertook programmes and projects implemented directly or indirectly by the public sector. A large part of this investment amounted to direct State intervention in agreement with private enterprises. This is a clear example of an association between government and private business resulting in major investments.

The Brazilian Government used many tools to support private investment. It assured high rates of profitability by offering investment funds at negative interest rates. In conjunction with these incentives, the exports promotion policy combined direct negotiations promoted by the government to open up new markets with subsidies to provide incentives to the private sector in external markets (Beckerman, 1986; PREALC, 1982). As a result, manufactures today account for more than half of Brazil's exports.

Although the case of Brazil may be considered exceptional by reason of the negative interest rates, the opposite is the case in the majority of the countries of Latin America. The monetary and fiscal policies pursued during the adjustment period combined to produce high interest rates which had an adverse effect on investment decisions. The high interest rates

have been justified as a means of increasing domestic saving and encouraging the repatriation of the capital which had flowed out of the region. In fact, domestic saving appears to be relatively uninfluenced by interest rates (Kahn and Knight, 1985), and there is no incentive voluntarily to return the exported capital owing to the economic depression prevailing in the countries of the region. Of course, fiscal policy could help to increase saving and investment by penalizing the distribution of profits and rewarding their reinvestment. Moreover, restrictions on speculative movements of capital could temporarily enhance a more independent monetary policy designed to bring interest rates down. This does not mean that interest rates have to be negative. It is a question of combining a gradual liberalization of tariff protection with administered restriction of capital movements, so that the joint pressure on companies to achieve greater productivity coincides with incentives to invest.

It is not enough to correct the external imbalance and restore investment levels. There is also an historical social debt which has been increased by the crisis. To service this debt it is necessary to generate productive jobs, increase real wages and cater for the essential needs of the poorest groups.

The crisis has brought about a significant increase in unemployment and in underemployment through expansion of the occupations most vulnerable thereto (informal and public jobs, and employment in tertiary activities and small businesses). It is therefore necessary both to create jobs and to correct the existing imbalances in the structure of employment which have led to losses of productivity in the economy. This imposes certain conditions on the adjustment, including the need to avoid certain measures which seek to achieve macro-economic balance but have the effect of aggravating the social situation. This happens when the reduction of the public sector following cutbacks in expenditure brings about a decline in public employment. This sector has played an important role in absorbing manpower over the past three decades and, in particular, it has played an anticyclical role in the present situation and prevented an even sharper rise in the unemploy-

ment rate. Any reduction in public employment should be offset by increased absorption in the private sector. Unfortunately, the few countries which tried to achieve this during the 1970s were not effective in shifting employment from one sector to the other, and the inevitable result was open unemployment (PREALC, 1985b).

An analysis should also be made of the relationship between wages and profits. A policy to promote private investment might propose an increase in profit margins leaving little room, if any at all, for increases in real wages. This issue seems even more important when it is remembered that real wages have declined since the outbreak of the crisis and that the majority of the countries of Latin America have undergone a process of democratization. From the political standpoint governments need to encourage the restoration of real wages and from the technical standpoint it seems necessary to explore ways (not necessarily new ones) of combining the political requirements with the requirements of growth. Policies for the distribution of income or ownership could be agreed jointly with a view to increasing productivity.

Finally, attention must be given to the question of social benefits, in particular social expenditure in favour of the poor and unemployed. The experience of the past 10 years shows clearly that such programmes are the first to be cut back when a reduction of public expenditure is sought. Moreover, the poorest sectors are the ones that have suffered most during the crisis and it is unfair, as well as unfeasible in the present political conditions in Latin America, to think of further cutbacks in the public budget affecting them. On the contrary, the challenge is how to extend the cover provided by these programmes. In other words, the problem is how to furnish resources to the public sector to cover these expenditures rather than to cut back such high priority programmes. This ought to lead to an analysis of policies of fiscal expenditure and income, and not simply from the limited perspective of encouraging the process of private accumulation. It is thus necessary to explore the restructuring of public expenditure. There is no doubt that much public expenditure is excessive: military, transfers to weakened financial systems, and subsidies which benefit the upper levels of the middle class.

## VII

## Conclusion on adjustment

The problem which Latin America must tackle is not one involving extreme decisions. It is sufficient to point out that the democratic nature of many governments of the region would not allow exclusive solutions, especially if use is made of mechanisms for consulting the organized social forces and the political sectors. Free trade should not be the solution for a closed economy. Public intervention should not run counter to the laws of the market. The region's

experience is that extreme solutions do not work efficiently and that a balanced approach is needed. This means greater selectivity in the use of the instruments and improved timing in the interventions of the public sector. The important role of the State in the Latin American economies is beyond discussion. The question is how to make this intervention effective in a democratic framework.

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## External debt and the reform of the international monetary system

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On the basis of an analysis of the historical evolution of real international interest rates, the author asserts that the main factor which increased the external debt burden in the 1980s was the excessively and unexpectedly high levels reached by such rates. This increase, which took both bankers and debtor countries by surprise, so that they do not appear to bear major responsibility for this process, mainly originated in the economic policy followed by the United States Government. Through mechanisms which are analysed by the author, this policy increased the debt service burden and reduced the volumes and prices of commodity exports, giving rise to a transfer of resources from the debtor countries which exceeds 3% of their gross domestic product per year.

Lightening the debt burden necessarily calls for a reform of the international monetary system based on the co-ordinated intervention of the developed countries in the money markets, together with the economic expansion of those countries. The author considers that in recent years the macroeconomic policy of the central countries has led to a considerable distortion of some relative prices: the debtor countries should not commit the serious error of designing their economic policies in line with those prices (as for example by giving priority to the achievement of a big trade surplus), since when some degree of normality returns to the international macroeconomic scene, they will find that their hard-won "structural adjustments" have taken them along the wrong track.

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## Introduction

The debt crisis, which has more than one antecedent in the not so distant past, exploded in 1982, threatening to bring down the international financial system and unleash a more generalized slump of the kind seen in the 1930s. Attitudes in the countries of the North quickly evolved from panic to near complacency only two years later, however. The rapid growth of the United States economy in 1984, affecting the whole world through the spill-over effect of its fast increasing trade deficit, seemed to announce the end of the debt problem. Yet at the same time the highly indebted countries were going through their worst crisis since the 1930s depression. Stagnation or reduction in per capita income, falls in real wages, and growth of unemployment have been widespread. Investment in new productive facilities has failed to keep up with the need for growth and fiscal accounts have been thrown dramatically out of balance as a consequence of the burden of foreign debt service on progressively tighter terms. Furthermore, the deceleration of the United States economy, the persistence of high real rates of interest, the impact of lower levels of economic activity and expenditure in industrialized countries, and the effect of the high dollar on commodity prices have all led to renewed concern about the debt crisis in the last twelve months in the creditor countries themselves.

The conventional solution to the debt problem—that of rescheduling maturities of the principal and mobilizing "fresh money" from commercial banks and IMF funds to cover interest service—is showing signs of exhaustion. By throwing the burden of adjustment almost completely onto the debtor countries it has entailed for too long a period sacrifices that could be only accepted if the situation were transitory. Worst of all, the conventional way to administer the debt problem has achieved very little improvement beyond keeping the banks' profits at a fairly high level and ensuring a rapid reduction in the exposure ratios of bank capital to developing country debt.

The implicit assumption in debt administration seems also to be fundamentally misplaced. The lion's share of the adjustment has had to be taken up by the indebted countries themselves. Little or nothing has been done to encourage better performance in the world economy apart

from the United States' fiscally induced boom, which generated —because of its unilateralism and biased policy-mix— so many distortions as to preclude its generalization to the rest of the world economy. There has also been great reluctance to provide the necessarily vast amounts of finance required in the debt crisis in order to tide the indebted countries over the shock induced by the persistent deflationary forces at work in the world economy since 1979.

In fact, the debt problem, far from being mainly attributable to domestic developments in the indebted countries, may be much more fruitfully understood as part of two different but certainly strongly-linked forces at work in the world economy. The first force is what the World Bank has aptly called the rise and fall of commercial bank financing of the developing countries' balance of payments. Debt accumulation, at the abnormally high levels of interest rates of the last few years, has put an end to the *de facto* international monetary and development finance system of the 1970s, based on bank

lending. The second force in recent years has been the strong commitment to fight inflation on the basis of demand restriction in a context of unilateral international policy making, which was made possible by the acceptance of floating exchange rates. The peculiar disinflation thus induced, with its high real rates of interest and low commodity prices, naturally created difficult problems for all debtors, whether in developing or in industrialized countries.

A solution to the debt problem, therefore, would require the replacement of commercial bank financing for developing countries by some new system which would probably entail a much larger role for public institutions. The solution would also demand policies for economic growth entailing close co-ordination among countries to overcome today's disequilibria with as little damage as possible to both industrialized and developing countries. For both these reasons a solution to the debt problem is intimately connected with the reform of the international monetary system. This paper is devoted to the development of this argument.

## I

### Commercial banking vis-à-vis public institutions in the provision of finance to the developing countries

At the beginning of the 1970s commercial bank lending represented only a small fraction of total borrowing by the developing countries. By 1971, the share of bank loans in the aggregate debt of these countries was slightly above 10%, whereas official bilateral and multilateral credits made up more than two-thirds of that same aggregate (UNCTAD, 1985, p.65). Only 15% of the total net resource receipts of developing countries in 1970 had been provided by commercial banks, but by 1981 this figure had risen to more than 27% (World Bank, 1985, table 2.3, p. 21). Rates of growth of such lending were at the level of 40 to 50% in the first half of the 1970s and almost 30% in the period 1975-1979. Lending from

official sources, in the meantime, had declined to 55% of the developing countries' total medium and long-term debt by 1979 (UNCTAD, 1985, pp. 65-66).

The reasons for this explosion of commercial bank lending to the developing countries have been well explored. On the side of the borrowers the main reasons were the need to finance balance-of-payments deficits generated by the first oil shock and the easy access to a large volume of resources. On the lending side, banks seized the opportunity to develop a very profitable line of business on the basis of the ample funds deposited by the oil-exporting countries.

Some innovations introduced in loan contracts were also instrumental in the expansion of the market. Syndication of loans, with the incorporation of cross-default clauses, spread the risk among a multitude of lenders and placed the borrower in a position where the penalties for default on any specific loan had been clearly increased. Sovereign risk was, in any case, thought to be small. Even if it is more difficult to enforce loan contracts concluded with countries than with private domestic borrowers, the accepted wisdom held that countries do not go bankrupt. Even quite recently it has been argued that sovereign lending is less risky than domestic operations. In his well-known work on international debt, William Cline offers a calculation showing that domestic lending is more than two-and-a-half times as risky as country lending.<sup>1</sup>

The main innovation in bank lending to developing countries, however, was the floating interest rate loan. This enabled banks to effect the transformation of short-term liabilities into medium-term assets without assuming any interest rate risk. Floating interest rate loans now make up more than half of the public debt of major borrowers and almost 43% of that of all developing countries taken together (World Bank, 1985, table 2.4, p. 21).

With the arrival of the second oil shock, motives for balance-of-payments financing, if anything, increased for non-oil-exporting developing countries. With hindsight one can now see that the pace of bank lending, however, started to decline. While the annual rate of growth of the external assets of banks *vis-à-vis* developing countries was above 33% for the 1975-1977 triennium and almost 24% both for 1978 and 1979, in 1980 and 1981 —well before the 1982 crisis— it had declined to 20% and 15%, respectively (UNCTAD, 1985, table 20, p. 103).

The slowing down in the pace of bank lending to developing countries before the debt crisis seems to lend support to the hypothesis that the previous growth had been a once-for-all phenomenon associated with a phase of diversification

of bank portfolios. Even without the debt crisis, the international financial and trade system would have been under pressure to accommodate such a decline in a major mechanism of the international financial system. The slowing down was particularly serious as it happened in a context of sharply increased interest rates due to a shift in economic policy in the United States. Thus, average interest rates on medium and long-term floating rate debt for all developing countries went up from 12.3% in 1979 to 17.4% in 1981 (UNCTAD, 1985, p. 71). Excess interest payments, it has been estimated, offset more than half of the net additional financing for several countries and the whole interest bill exceeded new lending for more than one country (UNCTAD, 1985, p. 81).

Impelled by the consequences of the post-1979 crisis, some debt indicators tended to deteriorate further. Particularly, the ratios of debt to GNP and interest service to GNP for all developing countries jumped between 1978 and 1981 from 21% to 22.4% and from 1.1% to 1.9%, respectively (World Bank, 1985, table 2.6, p. 24).

Not only the increase in interest rates but also a worsening of the terms of new lending caused pressure to be brought to bear from the financial side on the balance of payments of debtor countries. Spreads rose in 1980 and 1981 and average maturities lowered, with a significant accumulation of short-term debt (World Bank, 1985, table 8.6, pp. 118-119).

The above circumstances can be interpreted as additional evidence that banks were showing less interest, after 1979 and before the actual eruption of the debt crisis, in participating in the financing of developing countries' balance-of-payments needs. This trend was greatly strengthened by the debt-servicing difficulties of some major debtors as from 1982. To better understand the reaction of the commercial banks when confronted with those difficulties, it is important to keep in mind their own position.

By the end of 1982 the exposure of the United States banks' capital in the form of loans granted to non-capital-surplus developing countries and Eastern Europe was extremely high. For all the American banks together, lending to those countries stood at 182.8% of their capital. For the nine largest money centre banks the

<sup>1</sup>Cline shows that the average loss rate on country lending could be estimated as 0.28% of loan values per annum, while the corresponding rate for domestic loans —as applied to the nine largest banks— was 0.72% (Cline, 1983, pp. 100-101).

corresponding figure was 287% (Cline, 1983, pp. 32-33, and WFM, 1985a, p. 4). But other banks were also heavily exposed to potentially problem debtors. At the end of 1983, for instance, two of the largest British clearing banks —Lloyds and Midland— had a proportionately greater exposure to Latin American debt (leaving Mexico aside) than any of the nine United States money centre banks (*Financial Times*, 1984). Banks in the Federal Republic of Germany were also heavily exposed in Eastern Europe, where they held more than 60% of the Polish debt.

Capital-to-assets ratios had also been falling for banks in many of the industrialized countries during the late 1970s and early 1980s, presumably partly as a consequence of the fast pace of their international lending (World Bank, 1985, table 8.4). Moreover, in the changed international economic environment, the previous advantages of floating rate lending now turned against the creditors. With the high and volatile interest rates, generated by the new monetary policy followed by the United States, debtors' difficulties meant high transfer and commercial risk.

Although it is true that countries do not go bankrupt, historical experience confirms that both developing and developed countries may default on their international obligations. It is not at all surprising, therefore, that lending by banks to all developing countries grew by only 6.6% in 1983 (almost corresponding to a target of 7% suggested during IMF negotiations with some of the largest debtors) and by even less —2%— in 1984. Figures for the first half of 1985 were showing an even slower pace than that of the previous year (WFM, 1985a, p. 11 and BIS, 1985).

Moreover, a large part of the new lending that had taken place is the result of what the World Bank calls "concerted lending" arranged in conjunction with debt restructuring under the guidance of the IMF. In fact, out of US\$ 30.2 billion and US\$ 22.7 billion of syndicated Euro-currency lending for the years 1983 and 1984, US\$ 14.3 billion and US\$ 11.3 billion could be attributed to "concerted lending" (World Bank, 1985, table 8.6, pp. 118-119).

As a result of this slow pace of growth for bank lending to developing countries, figures for

capital exposure in such operations have fallen sharply for the nine largest United States banks, from the above-mentioned 287% in 1982 to 214% by the end of March 1985, "... lower than at any time since 1977" (WFM, 1985a). Capital ratios in relation to assets have also been improving at a fast pace for United States banks, from 5% at the end of 1982 to 6.27% at the end of 1984 for the 15 largest institutions. Such an improvement in bank ratios has been obtained through a fast increase in bank capital at a rate of about 9-10% per year (Bergsten *et al.*, 1985, p. 31).<sup>2</sup>

In the performance and business strategies of banks it is difficult to separate the impact of regulatory activity from market-induced changes. In the matter of capital/assets ratios no doubt —at least in the United States— regulators have had a considerable influence. In fact, action on those ratios has been the main response to the threat to financial structures posed by the debt crisis in relation both to developing countries' debt and to domestic primary sectors, mainly agriculture and energy —the last one being responsible for the failure in 1984 of the Continental Illinois Bank, one of the ten largest in the country.

Capital/assets ratio requirements were first of all raised in 1983 to 5%. After the Continental Illinois Bank crisis they were further increased to 5.5% and in April 1985 to 6%. Currently a new regulation is being discussed which might again raise required capital ratios and would also incorporate within the requirements some off-balance-sheet operations like letters of credit outstanding. The proposal includes a new concept, i.e., that of differentiated requirements for different kinds of assets. Third world debts would be placed, of course, at the top of the scale (Nach, 1986).

Increased capital/assets requirements engender quite a contradiction for bank strategies. As a consequence of the debt crisis, bank shares have lost value, so that they no longer represent a means to raise capital. Therefore,

<sup>2</sup>Henry Terrell (1984), Chief, International Banking Division of the Federal Reserve System, estimates that United States banks' capital will increase, in the coming years, at about 9% per annum.

capital requirements have to be met through earnings at the very moment when some profitable activities are being discouraged as too risky. Banks have preferred not to employ their own capital and to emphasize so-called off-balance-sheet operations, some of them carrying high risks. We shall see later how such a phenomenon becomes linked to what has been called the "securitization" of financial markets. The fact remains that in the eyes of regulators, and of more than a few bankers, capital ratios have to be re-established at higher levels, compatible with historical notions of prudential management.

As a consequence of the debt crisis, regulators have also tightened up rules on loan classification and setting up of reserves. In the United States, loans for which no interest has been collected in the previous 90 days have to be classified as "non-performing" and interest accrued on them deducted from the quarterly reported earnings. This rule was in fact tightened up in June 1984, at the time of conflict about the Argentine debt, in order to avoid what under the previous practice had been recurrent end-of-quarter crises, since the rule used to be applied only at those points in time.

Continuation of interest arrears for six or more months is one of the important factors that could cause a country to be classified as "substandard" or "value impaired". In this case, banks have to set up reserves at a level specified as a percentage of the face value of the loans. Five countries were placed in this last category at the end of 1983, and a new one —Peru— has reportedly been added to the list in 1985. Provisioning for bad loans has been restricted, therefore, to very few cases in the United States, although it is understood to be an extended practice in continental Europe, aided by very flexible and generous tax treatment of such reserves.

On the other hand, it is important to note that neither regulations nor accounting practice require banks to write down the value of troubled loans in their balance sheets unless they change hands or the nature of the contract is altered. Consequently, loans to developing countries are carried at face value even if they are traded on a rather marginal secondary market with discounts of 15 to 75%.<sup>3</sup>

More important, however, than regulatory pressure to discourage bank lending to developing countries is the influence of some developments in financial markets and structures, as well as the behaviour of the world economy. After a prolonged period in which commercial banks stressed growth —lending to developing countries being one attractive avenue for such strategy— increased awareness of risk has in more recent years encouraged more concern about profit levels and capital adequacy (OECD, 1983 and 1985a). Risk, in turn, has its origins in a much more volatile economic environment: e.g., greater variability of interest and exchange rates and, of course, the problems of highly indebted countries.

Consequently banks have been searching for new activities or placing new emphasis on old ones that would allow them to build up profits —the safest basis for generating capital increases in a context of lessened Stock Exchange confidence in the industry— without committing new capital. Off-balance-sheet operations implying contingent liabilities but no initial commitment of funds or sheer intermediation of third-party paper have generated sizable increases in fee-income and profits without making demands on their own capital and reserves. Ways have also been found to increase capital through other instruments than placement of shares, such as the issue of floating-rate notes whose results are admissible as part of the banks' own capital.

The whole process had led to what has been labelled the "securitization" of financial markets. Estimations published by the Bank for International Settlements (BIS) show that, while in 1981 out of a total of net international finance —both loans and bonds— of US\$ 190 billion

<sup>3</sup>See Montagnon (1986). It has been also estimated that the Stock Market, in 1983, implicitly valued —through bank share prices— loans to major debtors at 79% of their face value. (See Bergsten *et al* (1985), p. 28.) Another regulation and/or accounting standard impinging on treatment of loans to developing countries is the requirement for public disclosure of so-called "Troubled debt restructurings", i.e., loan renegotiations involving concessions not originally envisaged. It need not apply, however, to a weakening of lending terms as long as new terms are still within market practice.

almost 87% was in the form of bank loans, this proportion fell to around 65% for the period 1982-1984 and in the first half of 1985 it was down to only 42% (Bank for International Settlements, 1985, table IV, p. 24).

That shift in international financial markets is not only connected to banks' strategies but it also reflects basic changes in ultimate lenders and borrowers. The syndicated Euroloan reigned at the time when funds originated in OPEC countries —with a preference, at least initially, for bank deposits— and were lent to developing countries with little access to security markets. Now funds originate mainly in some industrialized countries —Japan foremost among them— and have an important outlet in the financing —through bond purchases— of United States Federal Government deficits.

The market has also witnessed the development of 'hybrid' instruments like "note issuance facilities" or "transferable loans", which have blurred the distinctions between loans and bonds while giving commercial banks a chance to do business without long-run commitments of their resources.

The rapid development of new instruments for financial intermediation is only very recently being incorporated into banking regulations. The pursuit of off-balance-sheet operations carrying important risks has led —in the case of the Bank of England— to requirements for up to 50% capital coverage for note issuance facilities and the top of the ratio's scale for letters of credit in the above-mentioned new regulations under discussion by banking authorities in the United States.

The consequence for developing countries, at any rate, is that —as the BIS has analysed— the international financial market has become a highly segmented one. For countries with debt problems, there is the "concerted" or "involuntary" lending market based on the need felt by big banks to look after their huge loan portfolios in those countries. This has represented about half of the syndicated Eurocurrency loan market in 1983-1984, which stood at about 50% of its peak pre-1982 level. For some other developing countries there is still a reduced access to syndicated loans from international banks but lately recourse has been had to the floating rate note market and other forms of securities which

entail lower costs. In fact, a great deal of activity in this sector is related to cancellation of earlier loans and refinancing through new instruments. As with lending in the late 1970s, bank activity in negotiable paper and off-balance-sheet operations is taking place at very reduced margins and with increased accumulation of risks (Bank for International Settlements, 1985, pp. 25-26).

For debt-ridden developing countries the prospects could not be gloomier in this respect. Their low creditworthiness —as gauged by the financial markets— excludes them from sources of international private finance other than "involuntary" or optimistically —if adjustment were successful— "voluntary" bank lending. This will certainly grow, if at all, at an extremely slow pace in the coming years as a consequence of banks' having outgrown their capital base —a process which will take quite a long time to redress.<sup>4</sup> According to the most optimistic projections of the results of the present "adjustment" process of the highly indebted countries, the archetypal risk indicator —i.e., the debt/exports ratio— will for most countries take a long time to get down to a safe level of between 150% and 200%. In fact, for the ten major debtors the average ratio has actually increased from 257% to 308% between 1982 and 1985 (WFM, 1985a, table 6, p. 4).

Simultaneously, banks would be caught in a process of building up their small capital base —the obverse side, one could say, of the high debt ratios of the developing countries— by avoiding committing their own resources to *any* lending, let alone to highly-indebted countries to which their exposure is still extremely high in terms precisely of their capital. The paradox is compounded by the fact that as bank debt is the largest part of the foreign debt of those same countries —almost two-thirds for the 15 Baker Plan countries— debtors are being forced to

<sup>4</sup>Lessard and Williamson (1985, p. 17) estimate the future growth of bank lending to developing countries in the near future at 3% per year, the bulk being trade finance. Exposure to the ten major debtors increased at a rate of 2% per year from end-1982 to March 1985: a figure that may have improved lately after implementation of the fresh-money provision in the Argentine programme beginning in July 1985 (see WFM, 1985a, p. 4 and also comments by a senior banker —Mr. Lawrence S. Brainard— of Bankers Trust Co. (1984)).

make up for the increased real interest burden (which ends up in commercial bank coffers) by having recourse to other international financial sources or by the generation of big trade surpluses entailing a negative resource transfer to industrialized countries.

The building up of debt to bank creditors, although an expedient instrument of development finance and liquidity creation during the 1970s, seems to have come to an end. A new system will have to be set up unless the balance-of-payments position of developing countries is fundamentally transformed in the immediate future. Trends at work before the debt crisis, which were only reinforced by later developments, exclude commercial banks as a major force for the coming years in the financing of debtor countries. What are the prospects for other sources of finance?

Let us first dispose of one source that has been mentioned with insistence, namely, foreign direct investment. The main objection to foreign direct investment is that, for the ten major debtors, at its peak annual average of US\$ 6 303 million (in 1981/1982), it would still represent no more than 15% of those countries' annual interest payments. In fact, foreign direct investment has come down rather abruptly, rather as a natural consequence of the discouragement caused by the economic crisis brought about by the debt problems than because of any alleged irrational antipathies held by governments or public opinion in developing countries. For all its possible advantages in bringing in marketing or technical/managerial knowledge, foreign direct investment would not be a force of any significant weight in balance-of-payments terms.

Somehow connected with foreign direct investment is the question of capital flight. Even in the period 1983-1984 capital outflows from highly-indebted countries —the ten major ones— represented more than half of the newly accumulated debt (WFM, 1985a, table 5). Such a flow is decisively influenced both by long-run trends and by more recent developments. From a long-run point of view, capital flight from debtor countries is just one more instance of a world-wide phenomenon of portfolio diversification by investors taking advantage of the internationalization of financial markets. In more

recent times such a trend has been encouraged by the high rates of return that can be obtained in financial placements as a consequence of high real rates of interest plus institutional changes such as the elimination of withholding taxes. For debtor countries it is difficult to compete against such high rates of return —a problem that is compounded by the recessionary consequences of debt renegotiation plans. There seems to be little chance of any significant return of capital outflows, although sound macroeconomic policies on the part of debtor countries could, by offering better prospects for private investment, increase such a reflux within limits. Domestic tax treatment of this issue is of course highly contentious, particularly in countries where schemes for subsidization of private external debt —intimately connected through back-to-back operations where deposits abroad operated as collateral for borrowing from foreign banks— were introduced during the debt crisis.

We are therefore left only with official or officially-guaranteed sources of funds. Let us first take up the bilateral sources. Due to the increased role of bank lending in balance-of-payments financing for the developing countries, official export credits were losing part of their share throughout the 1970s. As a percentage of developing countries' total receipts, export credits went down from 15% at the beginning of the 1970s to 12% in 1981. Thereafter, they dropped further to only 8% in 1983 (World Bank, 1985, table 7.2, pp. 96-97). To a great extent such a fall is only an expression of the fall in imports by developing countries and, more specifically, of capital-goods imports. There are, however, supply-side reasons to explain the reduction in export credits. Although interest rates charged on export credits have been rising since the April 1978 agreement among OECD countries, the sharp rise of market rates since late 1979 had increased the bill for interest subsidies from US\$ 2 billion in 1978 to US\$ 5.5 billion in 1981. Export credit agencies recovered US\$ 1 billion in 1982 and US\$ 2.5 billion in 1983: i.e., less than outgoings at the very moment when fiscal austerity throughout OECD countries was placing demands on the agencies to be self-sustaining (UNCTAD, 1985, pp. 114-115).

As a consequence of the above, export credit agencies have been criticized for displaying "herd-like behaviour" to a greater extent than have the commercial banks —i.e., their behaviour has been pro-cyclical. Terms of lending have been progressively tightened and, worst of all, cover has been suspended for countries entering debt renegotiations with the Paris Club. Only with great delay has such cover been reinstated after the successful negotiations. As a result, for the ten major debtors —out of which eight have gone to the Paris Club— net official export credits from OECD countries went down from an annual average of US\$ 3.7 billion in 1979-1981 to US\$ 2.74 billion in 1982-1984. For five out of the ten countries net flows were actually negative (WFM, 1985a, table 18, p. 11).

There is a clear need for the role of official export credit agencies to be stepped up both in the long run and in the context of the debt crisis. In fact, some of the plans to sort out the debt problem revolve around radically increased funds from such agencies. Cover is also needed not only for capital goods but for current inputs, as was envisaged in Eximbank operations for Brazil in 1983. But their role is intimately linked with monetary and fiscal policy-making by the OECD countries, and in the present deflationary phase this has conspired against the enhancement of their role.

As for the multilateral institutions, the World Bank stepped up its disbursements to indebted countries, managing a total of almost US\$ 5 billion in the period from end-1982 to June 1985 for the ten major ones. In terms of rate of increase, however, this amount is not very far above the interest rate prevailing in those same years. Criticism of the World Bank's procedures has been prominent in relation with the initiative of the United States Secretary of the Treasury (Mr. James Baker) on the debt problem. Opposition by the United States Government to an increase in the resources of the World Bank remains, thus preventing greater mobilization of funds to the debtor countries in the medium term. In the meantime a greater stumbling block to the role of the World Bank is the additional conditionality and cross-conditionality with IMF that it is trying to impose on its quick-disbursement lending. Debtor countries operating under IMF plans also encounter budget

constraints in trying to fulfil the local counterpart requirements of World Bank loans. But it is above all the attempt to promote an overall ideological viewpoint through loan conditionality which, besides not fully respecting the Bank's statutes, is deterring debtor countries from using more fully their access to such resources.

The role of IMF in the direct provision of resources cannot be denied in the context of the debt crisis. Nearly US\$ 10 billion were lent by it from end-1982 to mid-1985 to the ten major debtor countries (WFM, 1985a, tables 8 and 9, p. 5). For the 15 debtor countries envisaged in the Baker initiative over the period 1982-1984, the Fund provided close to 20% of the external financing.

Apart from disputes about conditionality, the real trouble about continuing this role, lies ahead. Access to IMF resources has been tightened and no initiative seems to be in progress to replenish funds for the enlarged access policy that has superseded the Supplementary Financing Facility. In fact, in spite of the small potential for expansion of private credit to developing countries in the near future, it seems that the policy of the main industrialized countries is to keep the IMF as a lender of last resort and to encourage stabilization and adjustment rather than facilitating extra finance. Consequently, the IMF might very soon become a net recipient of funds. Repayments are climbing very fast as the post-1982 plans unwind, and countries looking for support from the Fund may find that drawings will barely match repayments (WFM, 1985a, table 15, p. 9).

If present policies are followed, therefore, there seems to be very little chance for official institutions to step in again to take up the role being abandoned by commercial banks in providing liquidity and development finance for developing countries. More serious even in the short run is the fact that the net drain of resources occasioned by the rather wide gap between interest payments to banks and "fresh money" provided by them is forcibly being filled by debtor countries through accumulation of positive trade balances entailing a negative real transfer of resources, from the developing to the industrialized countries. In the case of Latin America, for instance, the accumulated net negative transfer of real resources, in the period 1982-

1984, has been above US\$ 106 billion (leaving aside terms-of-trade effects), i.e., on average about 3.2% of the aggregate national income of the region (ECLAC, 1985).

The burden of external debt service has brought to an end an era of easy financing through commercial bank credit, whose terms anyway were never wholly adequate for developing countries. A new financial system is needed to stop the negative transfer of resources from becoming chronic as a consequence of the great debt overhang. Estimates provided by, for instance, UNCTAD point however to the fact that, at present interest rate levels, it is very difficult to imagine any other source of borrow-

ing that would be sufficient to fill the gap; and even if it were available on concessional terms, the whole process could very soon end up with the accumulation of an even more serious debt problem (UNCTAD, 1985, pp. 107-110).

No reform of the international system of liquidity creation and development finance, then, seems to be satisfactory. But, in fact, interest rates are not natural events. Would it be conceivable for interest rates to be low enough to ease substantially the debt burden on developing countries? And what would be the connection between such a possibility and the reform of the international monetary system? To such questions the next section is devoted.

## II

### Economic policy co-ordination among countries, the reform of the international monetary system and the fundamental solution to the external debt problem

Since the beginning of the debt crisis an acrimonious debate has raged over who —bankers or debtor governments— was responsible for the accumulation of debt levels considered to be too high. Some other commentators tend to blame the governments of industrialized countries for having actively encouraged the process as a way to recycle the oil surpluses through private markets. But is it true that debt levels are too high? The burden of debt service (given the "voluntary" or "involuntary" willingness of creditors to roll-over amortization) boils down to the burden of interest service. In turn, interest service depends not only on the size of the principal but also on the rate of interest.

Now, beginning in the last quarter of 1979, nominal interest rates shot up owing to the new monetary policy introduced by the United States Federal Reserve. Emphasis on monetary targets added to the stringency an element of great volatility in nominal and real interest rates. After

that date a great deal of debt accumulation was due to the need to refinance excess interest payments. Consequently a Ponzi system of finance was started, under which the situation, partially at least, escaped control of debtors (and creditors also). New loans are granted simply in order to finance interest payments on the existing debt. Were debt levels up to 1979 excessive? Had debtors and creditors gone irretrievably beyond reasonable debt levels on the basis of historical experience?

On the contrary. Historical experience on interest rates is quite clear. Taking United States prime rate as the nominal interest rate and the index of wholesale prices —now renamed producer's prices— in that country as the indicator for inflation, the average *real* interest rate for the 60-year period 1920-1979 was only slightly above 1% per year. If we do not go so far back in time, and take the 20-year period 1960-1979, the average *real* interest rate would have been 1.3%.

Of course for the 1970s the average real interest rate was slightly negative. But this is not the point, because a prudent debtor country government or banker would not have relied on it staying there.

After 1978, nominal rates of interest kept pace with inflation for about two years, in 1979 and 1980. But with inflation subsiding by 1981, nominal rates (although they declined after 1981, and especially after the mid-1982 debt crisis) have been kept at a level that generates real rates of interest for the four-year period 1981-1984 of around 10% per year. In 1985, there was some reduction in nominal rates, down from the peak 13% of the third quarter of 1984 to 9.5% in the second half of 1985. But real rates have still been in the range of 6 to 7% per year.

Nothing in the pre-1979 experience could have told a decision-taker at the end of the 1970s that real interest rates could reach and stay at so high a level. The only other instances of real rates above 10% per year were the first three years of the 1930s depression and the year 1921, also a crisis year after the post-First World War inflation.<sup>5</sup> Moreover, dispersion around those long-run averages was quite low, with a post-war peak at 4.6% in 1967.

The point, then, is not that decision-makers projected to the future negative real rates of interest (granted a rather exotic circumstance only persistently seen in the 1940s). The point is that, on the basis of historical experience, interest service on external debt could have been quite easily achieved, even without refinancing, through fresh loans, with very little adjustment effort.

Even in 1985, with all the newly accumulated debt and the impact on export proceeds of the lowest export prices seen in the post-war period, current account balances for the 15 problem indebted countries envisaged in the Baker initiative would have been in sizable surplus at historical levels of the real rate of interest. In fact, with inflation as measured by the wholesale price

index of the United States only slightly above 2% plus (to be generous) a 1.5% real rate of interest, plus, say, a spread of 1 point, nominal rates of interest would stand below 5% for a developing country borrower, whereas instead they are actually above 10% at present.

At a nominal interest rate of 5% on an accumulated debt, for those 15 countries at the end of 1984, of US\$ 427 billion, interest service would thus have stood at no more than US\$ 21 billion. But in 1985 the combined trade balances of those 15 countries was above US\$ 39 billion, with increases in reserves and other minor items detracting only some US\$ 5 billion from the trade balance. A surplus of about US\$ 14 billion would thus remain, allowing for extra imports or even a cushion of more than 3 points against increases in real rates of interest.<sup>6</sup>

Of course, no surplus on the trade balance of those countries was available in 1982. But had not the interest rates reached those extraordinary and persistent levels beginning in 1981, a much weaker adjustment on the part of debtors would have allowed a current account equilibrium and hence, with the ensuing better creditworthiness, a continuation—although at lower levels—of private market finance.

Argument about responsibility for the accumulation of debt is therefore misplaced. Both bankers and the debtor countries' governments have been taken by surprise by the absolutely unforeseeable and extraordinary level of real rates of interest. Bankers, by increasing spreads, have only to a minor degree compounded a phenomenon which was not of their own making and which in fact resulted in a situation in which a large proportion of their portfolios, both international and domestic, looked rather shaky.

We have already seen that, at present levels of interest rates, it is inconceivable that other sources could replace commercial banks in generating a sufficient stream of finance to achieve current account balance. We have now seen that it is the extraordinary level of real interest rates that generated the debt crisis and is responsible, to some extent, for the retreat of commercial

<sup>5</sup>For series of prime rate and of the wholesale (later producers') price index going back to 1920, see United States Department of Commerce (1975). For more recent data, see the same source, 1984.

<sup>6</sup>For figures on debt and external financing of the 15 Baker Plan countries, see Institute of International Finance, 1985.

banks from the financing of developing countries. The debt crisis, in fine, originates in the high level of interest rates. In fact, it is just one expression of a disinflation process, as it was at the beginning of the 1930s or in 1921.

The impact on the debtor countries of the deflationary forces put into action in industrialized countries goes beyond their effect on interest rates. Export volumes as well as export prices have also been seriously affected, and this in turn has worsened the balance-of-payments situation of debtor countries. The UNCTAD secretariat has estimated that the cumulative loss of export proceeds over the period 1980-1983 due to commodity price declines reached US\$ 28 billion for a group of 48 developing countries. In 1984, non-oil commodity prices picked up with the recovery of the world economy, but by the third quarter decline had again set in and continued throughout 1985, getting even worse in 1986. The World Bank index for prices of basic products stood in 1985 at its lowest level (81, compared with an average of 100 in the three-year period 1979-1981) since the series was started in the late 1940s (UNCTAD, 1985, p. 78).

As overvaluation of the United States dollar has also been a consequence of the deflationary policies followed after 1979, there is little point in discussing which factor—the OECD level of economic activity or the high dollar—has been responsible for the low prices of basic products. Of course, there are more long-run forces at work having to do with technical substitution of some materials, like copper, which can hardly be subject to policy action. But certainly declines in prices of cereals, beef or sugar are, to a large extent, a direct consequence of subsidy schemes in industrialized countries.

The combination of excessive real interest rates and low commodity prices engendered by the economic policies of the industrialized countries, therefore, has induced a reverse real transfer of resources—i.e., from developing to developed countries—of gigantic proportions. In Latin America, for instance, the loss of income on account of the fall in the terms of trade and the excessive real rates of interest could be in the region of US\$ 30 billion per year, which is more than 3% of the region's gross domestic product.<sup>7</sup> The need, however, to cut imports so as to make room for such a transfer of resources has led to a

cut in the developing countries' purchases abroad which the UNCTAD secretariat estimates has entailed the loss of close to 7 million man-years of employment in Europe and close to 1 million man-years in the United States and Canada during 1982-1984 (UNCTAD, 1985, p. 119 and table 26, p. 120).

Thus, the deflationary policies applied in the industrialized countries have induced a crisis in the developing countries which, in turn, reacts back as a further deflationary force on levels of output and employment in the industrialized countries, notwithstanding any benefit that might have accrued to them in terms of transfer of resources from developing countries.

A growing consensus of opinion among professional economists blames the specific economic policy mix applied by the United States in this period for the high interest rates, and also lays blame on the high dollar, with its effects on commodity prices. Tight money has been followed by fiscal expansion. Starting with the tax reductions and the enhanced rearmament programme of the Reagan Administration, the United States Government has increased its fiscal deficit to the level of almost 5% of GDP. Since there is a rather low domestic savings ratio, the deficit is spilling over the rest of the world as the Administration seeks funds to fill the gap. From 1982 to 1984, the United States capital account experienced a positive swing of around US\$ 90 billion. Within the OECD area Japan accounted for the major part of this increase of net capital flows into the United States. The gap of about US\$ 30 billion which was left was covered by countries outside the OECD area, "notably by a reduction in net capital flows to non-oil developing countries as they reduced their current deficits by some US\$ 40 billion".<sup>8</sup> In fact, the United

<sup>7</sup>See ECLAC (1985) for figures on the 16.5% fall in the terms of trade since 1980 (table 9), which, applied to aggregate exports—at 1985 prices—of US\$ 91.93 billion (table 12), would mean a loss of some US\$ 15 billion. On the other hand, 4-5 points of excess interest rates as applied to a global debt of US\$ 360 billion (table 15) means another loss of US\$ 15 billion; the sum of both items relative to aggregate GDP for the region (US\$ 890 billion) gives 3.3%.

<sup>8</sup>See OECD (1985b) and the analysis of the reorientation of capital flows given there.

States Government has taken the place of the developing countries in this new phase of international financial "recycling", with Japan and some other countries, like the Federal Republic of Germany, now playing the former role of the OPEC countries at the time of the original 1970s "recycling". The wealthiest country is thus absorbing resources from the rest of the world by financing abroad a large proportion of a fiscal deficit which is the consequence of an expanded rearmament programme and tax cuts.

The problem with the United States policy mix to fight inflation through a revaluation of the dollar is that it is essentially asymmetrical. Not all countries can manage to revalue their own currencies, although in a world of non-fixed exchange rates an attempt could be made to do so through a process of competitive revaluations (instead of the classic beggar-my-neighbour policy of competitive devaluations that Bretton Woods was supposed to avoid). Under the influence of the alleged advantages of the floating exchange rate system in granting complete autonomy to the economic policy of each nation, the traditional attempts to co-ordinate international economic policy were abandoned in favour of the presumed work of an "invisible hand" as applied to the community of nations, just as Adam Smith envisaged if for national economies. Thus, in the last few years we have witnessed extreme divergence in economic policy stances, leading to extreme values in some of the market-determined variables such as exchange or interest rates.

This whole attitude has been, in some instances, elevated to the level of dogma. Thus we see Mr. Henry R. Naun—a former official of the United States National Security Council in charge of international economic affairs—lending support for "... an assertive use of U.S. economic power in the marketplace ... and a relatively passive U.S. economic diplomacy", a "combination that could work because the U.S. power in the international marketplace ... remains much greater than its power at the bargaining table" (Bergsten, 1985 and Naun, 1984-1985). However, the wide disequilibria that the world economy is experiencing—of which the debt problem is one more aspect—and some further academic work on optimum policies in an international economy tend to

indicate that it is high time for "unilateralism" to be replaced by a co-ordinated approach. Protectionist pressures in the United States, unleashed by the high dollar, seem to have convinced the United States Administration of the need to start modifying its previous point of view and to accept the idea both of intervening in exchange markets and of doing so in a co-ordinated way, at least in the context of the Western summit countries (Group of Five).<sup>9</sup>

The debt problem will only find a permanent, fundamental solution in a context of world economic growth with reasonable levels of commodity prices and real interest rates. Disputes about the exact magnitude of the elasticities of developing countries' exports to OECD growth rates cannot alter the fact that this growth is needed if exports from debtor countries are to expand so as to be able both to serve the accumulated external debt and to finance a higher and growing level of imports.<sup>10</sup>

Even more important, there is no doubt that a reduction of real rates of interest to historical levels would basically dispose of the debt problem. But for rates of interest to fall, co-ordinated action among the United States, Europe and Japan is needed so that the United States fiscal deficit may continue to be financed. Thus the debt problem is intimately connected with a path towards reform of the international monetary system that would increase mechanisms of surveillance for avoiding "unilateralist" policies and introduce, perhaps through a new exchange rate system, forces making for such co-ordination. The fundamental, long-run solution to the debt crisis would also call for institutional reform of the international monetary system in order to generate enough liquidity and development finance to replace the role played by commercial banks in the 1970s.

<sup>9</sup>For work on how an unco-ordinated set of economic policies is likely not to be efficient, see Oudiz and Sachs (1984). See also Marris (1985).

<sup>10</sup>See Cline (1983), chapter 3. Dornbusch and Fisher (1984) also give alternative estimates of the same elasticities. For the notion that growth of the world economy is absolutely indispensable for the solution of the debt problem, see the speech by James Baker, U.S. Secretary of the Treasury, at the Annual Meeting of the IMF/IBRD in Seoul, in October 1985. See also WFM (1985b).

### III

## The adjustment process in highly-indebted countries, conditionality and the debt problem in the transition to a growing world economy

It will certainly take time to bring back growth with price stability and reduced real interest rates as well as more reasonable levels of commodity prices. Let us hope that it will not involve a "crash landing" for the value of the debtor, in view of the negative consequences this could have for all countries. In the meantime, there is an urgent need to alleviate the debt burden, which has not only brought stagnation and crisis to the developing countries but has proved to be an additional deflationary force in the world economy and is posing a serious threat to the stability of the international financial system.

The measures to be taken should address the fundamental causes of the problem. It is not realistic to imply that the debt problem was brought about by a simultaneous failure of prudent economic management on the part of all the countries in trouble, in view of the differences in their economic policies and their political régimes. After three years of adjustment and of a drastic swing in trade and current account balances, what remains of the debt problem is surely only external to the debtor countries. The debt problem, as it now stands, must be seen for what it is, i.e., an external shock generated by the economic policies followed in the industrialized countries which shifted the values of key economic variables to abnormal levels which there is no reason to believe will not be rectified. It is thus a reversible external shock which, to avoid introducing gratuitous deflation of the world economy, should be treated by the provision of finance to avoid cutbacks in demand. Moreover, a reversible external shock should not induce adjustment in allocation of resources that could afterwards be difficult to undo. That is to say, if present levels of interest rates imply the need for high trade surpluses, there would be little point in inducing accelerated export sector promotion and/or import substitution investment that will not be required once those rates return to a normal range. In terms of market signals,

present-day prices (levels of exchange and interest rates) are not proper guidance for long-run investment decisions, as they are far removed from any conceivable long-run equilibrium.

Up to now, however, the administration of the debt problem has taken a completely different course to the above. Debtor countries have been forced to cut domestic expenditure levels, causing a drastic fall in imports. And the only promise these countries have been offered is that there will be a solution to their predicament in export-led growth, with the corresponding reallocation of resources. Now it is one thing to justify misconceived action on the grounds that credit rationing to developing countries makes it non-viable to choose any other way than the one the debtor countries are being asked to follow, but it is quite another to wrongly ascribe the debt problem mainly to domestic over-expenditure and misallocation of resources which in turn, would imply that the burden should be thrown on the shoulders of the indebted countries. The debt problem calls for external finance accompanied by the little adjustment needed to put an end to over-expenditure—to the extent that it existed—and to induce the trend adjustments and the structural reforms that were needed anyway before the crisis struck in 1982.

The international monetary system must find ways to accommodate such a transition to a more normal growth path. The Group of 24 and the Cartagena Consensus have repeatedly put forward reasoned proposals for action (mainly by the International Monetary Fund) to cope with the immediate aspects of the debt problem. Once the debt crisis is regarded as an external, reversible shock on the balance of payments, the possible solutions become clear enough.

The International Monetary Fund has long accepted the difference between temporary and fundamental disequilibria. For the first kind, facilities like the Compensatory Financing Facility were devised. On very low-conditionality

terms, it provides funds to make up for an exogenous decline in export values or, in recent years, an increase in cereal import prices. During the mid-1970s also, the Oil Facility came into operation, lending—even to some developed countries—on low-conditionality terms to avoid deflationary cuts in spending as a consequence of balance-of-payments deficits generated by the oil price increases. As a few authors have argued, there is no reason why the Compensatory Financing Facility could not be extended to cover other exogenous shocks on the balance of payments of a borrowing country. In particular, William Cline (1981) and Sidney Dell (Dell and Lawrence, 1980) have argued for a compensatory financing facility that could absorb the impact of increases in interest rates. The Group of 24 (1979) has also discussed the possibility of setting up a medium-term facility with repayment periods adequate for the necessary structural reallocation of resources.

Of course, the question arises of the sources of financing for such facilities. There is no question that, except for the United States, the fiscal policies of the industrialized countries are still extremely restrictive. New funds will be difficult to come by. However, countries in surplus—as some oil exporters were a decade ago—could make special contributions and themselves fund some of these facilities. Sometimes too much is made of the effort necessary to increase quotas in IMF. After all, of any increase in quotas only 25% has to be made effective, and on the other 75% interest is earned. The financial cost of a quota increase is therefore much less than the apparent one. In fact, it boils down to the cost of differential interest between the market rates and those applying to 75% of the contribution, which is 0.85 of the SDR rate plus the 25% in Special Drawing Rights or designated foreign exchange. IMF quotas, anyway, have fallen radically in relation to world trade or, worse still, even in relation to current account imbalances.

There are other sources already available that could be applied to alleviate the burden of

high interest rates in the transition to an improved world economic environment. The first one is the 19 billion SDRs in the kitty of the General Agreement to Borrow. At least part of this sum is intended to avoid prospective crises in the international financial system, which certainly would be the case if there are any major interruptions of debt service. Last but not least, there is always the possibility of a major issue of SDRs. Explicit objections to such issues have been based in the last few years on the fear of feeding inflation. With significant unused capacity in all industrialized countries, with full employment adjusted surpluses in fiscal accounts for most countries, with high unemployment rates and a slackening in earnings growth and labour costs, it seems that the time has come to shed concern for inflation and to embrace unhesitatingly the cause of world economic reactivation.<sup>11</sup>

Mobilization of other official institutions would be complementary to the setting up of adequate facilities under the International Monetary Fund.

There is no question that the World Bank's resources and procedures must be improved so that a larger volume of development finance is made available, now that the commercial banks have retreated from the role they played in the 1970s. But it would be wrong to make the World Bank—for lack of adequate resources and procedures under the International Monetary Fund—a balance-of-payments support institution. Such an attempt, which is partially incorporated in the Baker initiative, is doomed to failure as the speed at least, if not the direction, of the structural reforms that the World Bank should encourage bear little relation to the external debt shock of the developing countries.

<sup>11</sup>See WFM (1985b) for figures on adjusted fiscal balances and, more in general, for the argument that expansion is now decisively needed to avoid stronger protectionism and a renewed debt crisis.

## IV

## Concluding comments

The above analysis points to a consensus-seeking, tow-tier strategy to tackle the external debt problem at the world level.

i) Fundamental reform of the international monetary system has to be introduced and an immediate process of co-ordination of economic policies is required to achieve non-inflationary growth with reduced real interest rates and reasonable levels of commodity prices.

ii) Action is urgently needed to provide finance on adequate terms to see the developing countries through the transition period towards the achievement of that growth. Such finance would have to come mainly from official institutions, and the multilateral financial institutions are —after the necessary reforms— the best candidates to replace commercial bank lending. In particular, conditionality should be low, as befits the external, reversible shock character of the balance-of-payments disequilibrium during this period. In this way, no extra deflationary forces would be introduced in the world economy

and no erroneous adjustment to an unsustainable pattern of external balances and relative prices would be induced.

If such measures and reforms are not introduced for lack of political will, due to misconceived self-interest or the failure of political leaders to assemble the various parties in a fruitful dialogue to agree on solutions, the prospects for major disruption in the world financial system are high. Debtor countries would reluctantly —after all the sacrifices made and the utmost responsibility shown in recent years— be forced into unilateral action. In the words of the recent Declaration of Montevideo, issued by the Cartagena Consensus in December 1985: "Should the proposed set of measures not be adopted, the region will face a very serious situation which would necessarily force it to limit its net transfers of resources to avoid greater social and political instability which could reverse the process of consolidating democracy" (Cartagena Consensus, 1985).

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# Origin and magnitude of recessionary adjustment in Latin America

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Notwithstanding the enormous efforts made by the Latin American countries in the last five years to adjust their economies and despite the fact that the citizens of the developed nations are enjoying the benefits of the longest expansionary phase in the postwar period, the great majority of the peoples of the region find themselves immersed in one of the most profound economic crises in their history. They are enduring simultaneously a severe external constraint; levels of production and employment substantially and increasingly below their trend values; and, in many cases, inflations of exceptional virulence, although since mid-1985, several countries have achieved spectacular advances towards price stabilization.

In effect, the adjustment undergone by the Latin American countries has been unnecessarily costly and their recovery unduly and painfully slow. The markedly recessionary character of the adjustment suffered by the peoples of the region is chiefly the result of the acute scarcity of foreign finance. Hence the achievement of efficient adjustment and a timely and vigorous recovery largely depends on reforms of the lending policies of the international financial community that translate into a supply of credit in keeping with the impact of external shocks on deficit countries' balance of payments as well as with their capacity to absorb real falls in domestic expenditure without losses in production. On the other hand, the achievement of a more solid and autonomous development process means that Latin America must reduce its structural dependence on external financing, which depends, in turn, on the adoption of domestic policy reforms.

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## I

### Adjustment and efficiency

The logic of the adjustment process is implacable, for it is rooted in a budgetary constraint: the impossibility of absorbing more goods and services than those available, including, of course, both those produced domestically and those acquired from abroad by means of factor income, foreign loans and domestic holdings of international reserves. The process is automatic as well as inevitable according as the gap between gross domestic expenditure and gross national income becomes untenable, i.e., when international reserves are exhausted and foreign lending, voluntary or otherwise, ceases.<sup>1</sup> It entails the narrowing of the gap between gross domestic investment and gross national saving—or, what amounts to the same thing, the reduction of the deficit on the balance-of-payments current account—to an amount compatible with the availability of external finance. These being the inescapable facts of adjustment, the pertinent question is how to minimize their cost.

The logic of the process is unconnected with the sources of disequilibria, whether the causes be domestic or external, transitory or permanent. Neither can it be counteracted by domestic economic policy. Nonetheless, the questions associated with the origin and duration of shocks are pertinent to the design of international adjustment policies, that is, they help to determine the optimum mix of foreign financing and domestic adjustment.<sup>2</sup> Indeed, a deficit attributable to transitory external shocks should be financed for the sake of efficiency because the cost of eliminating a deficit ascribable to a temporary change in external conditions is generally much greater than the cost of sustaining it.

<sup>1</sup> A condition implicit throughout this analysis.

<sup>2</sup> By the term "shock" we mean phenomena such as the rise in the actual international interest rate, the fall in the actual average price of exports and retrenchment in the actual flow of credit from the international commercial banks in relation to their respective trend values.

The adjustment process imposes an inevitable cost, even in an economy free of imperfections; namely, the loss of welfare caused by the fall in absorption of goods and services involved in the elimination of a current account deficit, whatever the origin of the imbalance. In contrast, the cost of financing a deficit depends on what type of shock has caused it. Thus, whereas the cost of postponing an inevitable adjustment—that is, of sustaining indefinitely a deficit provoked by domestic economic policies or permanent mutations in international market conditions—is always greater than the inevitable cost of adjustment, the cost of financing a deficit stemming from transitory external shocks is less than the inescapable welfare loss inherent in the elimination of the deficit. Consequently, adjustment to deficits caused by transitory external shocks, whether voluntary or forced by a lack of foreign finance, is inefficient and represents an overadjustment.

Now, in economies free of imperfections—that is, in those that belong to the realm of the abstract—adjustment would not cause any production loss; in contrast, in real world economies, affected as they are by imperfections of varied type and intensity, a brusque and complete adjustment to the impact of any type of shock inevitably depresses the actual growth rate of economic activity *vis-à-vis* its potential rate when it does not reduce the actual level of gross domestic product.<sup>3</sup> Therefore, although a current account deficit may be due to domestic

policy shocks or permanent external ones, the minimization of welfare losses demands in addition a speed of adjustment consistent with the capacity of the imperfect economies of the real world to cope with falls in absorption without incurring losses in output.<sup>4</sup> This requisite implies that the impact of permanent external and domestic policy shocks also should be partially and temporarily financed. Indeed, in the absence of an optimum mix of financing and adjustment of the balance-of-payments effects of shocks over time, not only will countries be forced to endure an overadjustment (when foreign finance does not cover the impact of transitory external shocks), but will also have to suffer needless welfare losses (when foreign finance is insufficient to enable the countries to adjust without suffering production losses). Once again, without financing adjustment is inevitable, but adjustment in itself does not require production losses. Indeed, any output foregone during the process of adjustment is unnecessary and unjustified.

Nonetheless, whether the international financial community will be willing to provide the essential resources to forestall a needlessly costly adjustment is quite another matter, even though in the past it often financed deficits which, on efficiency grounds, should have been eliminated. In practice, the criterion that has determined the magnitude, velocity and cost of the adjustment process that deficit Latin American countries have had to endure has not arisen from efficiency considerations.

<sup>3</sup>Two classes of imperfections may be identified. One comprises those inherent to the existence of time and uncertainty. The rigidities and lags they engender prevent instantaneous reallocations of productive resources in the directions and magnitudes required to maintain them fully utilized, even if the economy be free of structural and institutional defects and if domestic economic policies be those full employment requires. The other class embraces the structural and institutional imperfections

that arise over time as a result of flaws in domestic economic policies. This type of imperfection also blocks the full employment of resources.

<sup>4</sup>It also indicates that the cost of adjustment to transitory external shocks is in fact greater than the welfare loss caused by the elimination of the deficit.

## II

## Resource transfers and unnecessary welfare losses

In the last five years the Latin American peoples have suffered and continue to suffer a dramatic adjustment. Thus, in the 1982/1985 period they have generated enormous surpluses on their trade accounts, transferring to the creditor countries US\$ 105 billion (see table 1).

It is evident that this adjustment has been very onerous, since each dollar transferred abroad is a dollar of goods and services that the countries of the region have not consumed or invested. But the really tragic aspect is that it has

been, and still is, unnecessarily costly, from the standpoint of both the logic of adjustment itself and the development potential of the Latin American countries. What is more, although this process has been considered quite an achievement in the North (and why not? —since from their point of view the results might not only have been much less satisfactory, but their own economies are prospering independently of the fate of the developing countries), the Latin American peoples have found themselves obliged to pay their bills many times over.

Table 1

### LATIN AMERICA: GLOBAL SUMMARY OF BALANCE OF PAYMENTS AND EXTERNAL DEBT

(Millions of dollars)

|  | 1978    | 1979    | 1980    | 1981    | 1982    | 1983    | 1984                | 1985                 |
|--|---------|---------|---------|---------|---------|---------|---------------------|----------------------|
| Trade balance                            | -8 480  | -6 211  | -10 121 | -12 613 | -1 354  | 27 003  | 33 969              | 30 935               |
| Net interest payments                    | -6 738  | -9 630  | -13 916 | -22 135 | -33 627 | -30 967 | -32 901             | -31 658 <sup>a</sup> |
| Net factor service payments <sup>b</sup> | -9 912  | -13 462 | -18 031 | -27 552 | -39 597 | -34 630 | -35 876             | -34 139              |
| Balance on current account               | -18 392 | -19 673 | -28 152 | -40 165 | -40 951 | -7 627  | -1 907              | -3 203               |
| Balance on capital account               | 26 208  | 29 092  | 29 546  | 37 287  | 19 881  | 3 220   | 10 206              | 6 043                |
| Long-term capital <sup>c</sup>           | 25 837  | 22 844  | 28 275  | 46 465  | 34 545  | 19 230  | 12 000 <sup>a</sup> | 6 000 <sup>a</sup>   |
| Short-term capital <sup>d</sup>          | 374     | 6 251   | 1 271   | -9 178  | -14 664 | -16 010 | -1 794 <sup>a</sup> | 43 <sup>a</sup>      |
| Variation in international reserves      | 7 757   | 9 787   | 2 231   | -1 843  | -19 191 | -3 755  | 8 298               | 2 840                |
| Resource transfers                       | 15 925  | 15 630  | 11 515  | 8 735   | -19 716 | -31 410 | -25 670             | -28 095              |
| Gross disbursed external debt            | 158 633 | 189 950 | 230 235 | 287 709 | 330 702 | 350 123 | 366 493             | 372 820              |
| Net external debt                        | 120 169 | 141 178 | 176 458 | 241 577 | 298 367 | 319 624 | 329 558             | 339 860              |

Source: ECLAC's data bank.

<sup>a</sup> Estimates.

<sup>b</sup> Includes private unrequited transfers.

<sup>c</sup> Includes official unrequited transfers.

<sup>d</sup> Includes errors and omissions.

Table 2  
LATIN AMERICA: SUMMARY MACROECONOMIC INDICATORS, 1981-1985

| Country               | Per capita gross domestic products <sup>a</sup> |       |       |      |      | Output gap <sup>b</sup> |      |      |      |      | Gross domestic absorption <sup>ac</sup> |       |       |       |       | Foreign currency gap <sup>d</sup> |              |              |                     |       | Inflation <sup>e</sup> |       |       |         |         |
|-----------------------|---|-------|-------|------|------|-------------------------|------|------|------|------|---|-------|-------|-------|-------|-----------------------------------|--------------|--------------|---------------------|-------|------------------------|-------|-------|---------|---------|
|                       | 1981  | 1982  | 1983  | 1984 | 1985 | 1981                    | 1982 | 1983 | 1984 | 1985 | 1981                                    | 1982  | 1983  | 1984  | 1985  | 1981                              | 1982         | 1983         | 1984                | 1985  | 1981                   | 1982  | 1983  | 1984    | 1985    |
| Argentina             | -8.2  | -7.8  | 1.4   | 0.5  | -5.5 | 15.2                    | 21.4 | 22.8 | 23.9 | 28.7 | -8.4                                    | -10.8 | 1.7   | 2.7   | -5.8  | <sup>g</sup>                      | 14.2         | 34.0         | 31.3                | 54.8  | 131.2                  | 208.7 | 433.7 | 688.0   | 385.4   |
| Barbados              | -3.5  | -5.2  | -0.5  | 1.8  | ...  | ...                     | ...  | ...  | ...  | ...  | ...                                     | ...   | ...   | ...   | ...   | ...                               | ...          | ...          | ...                 | ...   | 12.3                   | 6.9   | 5.5   | 5.1     | 3.0     |
| Bolivia               | -2.9  | -0.9  | -9.7  | -5.6 | -4.7 | -2.4                    | 8.0  | 19.1 | 25.1 | 29.7 | 1.2                                     | -11.1 | -6.6  | -3.5  | -16.4 | 31.7                              | 82.2         | 71.8         | 70.5                | 66.4  | 25.2                   | 296.5 | 328.5 | 2 177.2 | 8 170.5 |
| Brazil                | -4.2  | -0.9  | -4.9  | 2.5  | 5.8  | 12.1                    | 17.5 | 25.6 | 27.7 | 28.0 | -4.0                                    | 1.3   | -5.6  | 2.4   | 9.0   | 41.0                              | 43.8         | 74.0         | 20.4                | 100.6 | 91.2                   | 97.9  | 179.2 | 203.3   | 223.0   |
| Colombia              | 0.1   | -1.1  | -1.0  | 1.4  | 0.5  | -0.2                    | 3.8  | 7.6  | 9.4  | 12.1 | 3.5                                     | 2.3   | 1.0   | 1.3   | 10.9  | -76.0                             | -83.3        | -16.3        | 20.4                | 41.6  | 27.5                   | 24.1  | 16.5  | 18.3    | 22.5    |
| Costa Rica            | -5.0  | -9.7  | -     | 4.6  | -1.0 | 16.8                    | 27.8 | 30.8 | 31.3 | 35.6 | -11.5                                   | -10.2 | 28.2  | -12.8 | 0.4   | 67.3                              | 79.8         | 79.0         | 78.2                | 78.8  | 65.1                   | 81.7  | 10.7  | 17.3    | 10.9    |
| Chile                 | 3.6   | -14.4 | -2.1  | 4.5  | 0.8  | -3.4                    | 14.1 | 17.4 | 15.0 | 16.1 | 11.1                                    | -24.5 | -5.2  | 10.0  | -5.7  | -71.5                             | 31.2         | 65.5         | 50.2                | 68.4  | 9.5                    | 20.7  | 23.6  | 23.0    | 26.4    |
| Ecuador               | 0.8   | -1.8  | -4.4  | 1.7  | -0.2 | -11.6                   | -7.6 | 2.3  | 5.1  | 8.2  | 3.1                                     | 0.1   | -9.2  | 3.4   | 11.1  | -132.8                            | -8.6         | 89.8         | 87.5                | 89.7  | 17.9                   | 24.3  | 52.5  | 25.1    | 24.4    |
| El Salvador           | -11.0   | -8.4  | -3.8  | -1.5 | -1.6 | 29.3                    | 36.6 | 40.2 | 42.4 | 44.5 | -5.1                                    | -6.2  | -3.3  | 4.1   | -11.0 | 64.2                              | 75.0         | 78.5         | 76.9                | 76.9  | 11.6                   | 13.8  | 15.5  | 9.8     | 32.1    |
| Guatemala             | -1.8  | -6.1  | -5.5  | -2.6 | -3.7 | -1.7                    | 9.9  | 16.7 | 20.7 | 25.8 | -31.2                                   | -6.8  | -4.6  | 0.3   | -8.1  | 7.5                               | 63.9         | 84.8         | 81.7                | 88.6  | 8.7                    | -2.0  | 15.4  | 5.2     | 31.5    |
| Guyana                | -2.6  | -12.6 | -12.0 | 3.9  | ...  | ...                     | ...  | ...  | ...  | ...  | ...                                     | ...   | ...   | ...   | ...   | ...                               | ...          | ...          | ...                 | ...   | 29.1                   | 20.3  | 13.3  | 27.4    | ...     |
| Haiti <sup>h</sup>    | -3.9  | -6.4  | -2.3  | 0.2  | -1.4 | -1.8                    | 9.1  | 12.5 | 13.7 | 15.9 | -0.2                                    | -7.8  | 0.1   | 3.0   | -3.0  | -21.3                             | 23.7         | 36.7         | 44.5                | 58.9  | 16.4                   | 6.2   | 12.2  | 6.1     | 15.0    |
| Honduras              | -2.8  | -4.0  | -4.5  | -0.8 | -1.7 | -3.7                    | 2.3  | 6.8  | 8.1  | 10.5 | -2.3                                    | -5.2  | -1.0  | 3.0   | 3.0   | 27.0                              | 64.0         | 61.7         | 60.2                | 56.3  | 9.2                    | 8.8   | 7.8   | 3.7     | 4.2     |
| Jamaica               | 1.1   | -1.6  | -     | -1.7 | ...  | ...                     | ...  | ...  | ...  | ...  | ...                                     | ...   | ...   | ...   | ...   | ...                               | ...          | ...          | ...                 | ...   | 4.8                    | 7.0   | 16.7  | 31.2    | 22.8    |
| Mexico                | 5.4   | -2.6  | -7.6  | 0.9  | -    | -3.2                    | 3.8  | 14.5 | 17.0 | 19.4 | 9.1                                     | -5.3  | -9.1  | 4.4   | 12.1  | <sup>g</sup> -146.0               | <sup>g</sup> | <sup>g</sup> | <sup>g</sup> -400.0 | 28.7  | 98.8                   | 80.8  | 59.2  | 63.7    |         |
| Nicaragua             | 2.0   | -4.4  | 1.3   | -4.8 | -5.9 | 36.9                    | 41.0 | 41.6 | 43.9 | 49.8 | 3.6                                     | -4.8  | 3.8   | 0.8   | 2.4   | 39.4                              | 59.8         | 60.0         | 63.7                | 65.5  | 23.2                   | 22.2  | 32.9  | 50.2    | 334.5   |
| Panama                | 1.7   | 2.7   | -2.2  | -2.5 | 1.1  | 4.8                     | 5.7  | 11.1 | 17.6 | 21.4 | 5.2                                     | -4.3  | 4.9   | 0.7   | 11.1  | 63.7                              | 68.1         | 82.6         | 86.2                | 87.9  | 4.8                    | 3.7   | 2.0   | 0.9     | 0.8     |
| Paraguay <sup>i</sup> | 5.4   | -3.6  | -5.9  | 0.2  | 1.1  | -9.3                    | -3.5 | 4.1  | 5.5  | 6.0  | 10.6                                    | -1.0  | -6.1  | 4.0   | 10.3  | 15.6                              | 27.3         | 72.5         | 76.8                | 79.9  | 15.0                   | 4.2   | 14.1  | 29.8    | 24.0    |
| Peru                  | 1.0   | -2.7  | -14.3 | 1.8  | -0.6 | 13.9                    | 17.5 | 29.8 | 29.8 | 31.6 | 6.7                                     | -1.3  | -12.6 | 2.0   | -3.8  | 15.6                              | 38.2         | 69.4         | 90.0                | 94.9  | 72.7                   | 72.9  | 125.1 | 111.5   | 158.3   |
| Dominican Republic    | 1.5   | -1.1  | 2.2   | -1.6 | -4.4 | -1.0                    | 2.1  | 3.8  | 8.5  | 14.4 | 0.4                                     | -0.6  | 4.2   | -1.1  | 8.0   | 46.5                              | 47.5         | 68.6         | 84.2                | 88.8  | 7.4                    | 7.1   | 9.8   | 40.9    | 39.4    |
| Trinidad and Tobago   | -1.5  | 1.6   | -8.0  | -5.5 | ...  | ...                     | ...  | ...  | ...  | ...  | ...                                     | ...   | ...   | ...   | ...   | ...                               | ...          | ...          | ...                 | ...   | 11.6                   | 10.8  | 15.4  | 14.1    | 6.9     |
| Uruguay <sup>j</sup>  | 0.3   | -11.3 | -6.5  | -1.9 | -0.3 | -4.2                    | 8.8  | 16.2 | 20.5 | 23.1 | -1.2                                    | -10.0 | -9.6  | -3.2  | -16.8 | -185.8                            | 51.3         | 92.4         | 89.4                | 85.5  | 29.4                   | 20.5  | 51.5  | 66.1    | 83.0    |
| Venezuela             | -3.9  | -4.1  | -8.2  | -3.7 | -3.8 | 21.0                    | 25.0 | 33.2 | 38.1 | 58.4 | 0.6                                     | 5.7   | -19.5 | -0.1  | -10.3 | <sup>g</sup>                      | <sup>g</sup> | <sup>g</sup> | <sup>g</sup>        | -     | 10.8                   | 7.9   | 7.0   | 13.3    | 5.8     |

Source: On the basis of ECLAC data bank and ECLAC (1985) tables 3 and 5.

<sup>a</sup> Variation between annual averages, in percentages.

<sup>b</sup> One minus actual domestic product ( $Y_a$ ) divided by potential gross domestic product ( $Y_p$ ), all multiplied by 100, i.e.  $(1 - \frac{Y_a}{Y_p}) 100$ . Potential gross domestic product was calculated from the 1950-1978 gross domestic product growth trend. Minus sign (-) indicates surplus.

<sup>c</sup> Of goods and non-factor services.

<sup>d</sup> One minus the actual current account deficit ( $D_a$ ) divided by the potential current account deficit ( $D_p$ ), all multiplied by 100, i.e.  $(1 - \frac{D_a}{D_p}) 100$ . The potential current account deficit is defined

as the current account deficit that would be observed if the quantum of imports of goods and non-factor services equalled its trend value, given the actual values of the other balance-of-payments variables. The 1981-1985 trend values were calculated on the basis of the trend growth rate recorded in the 1950-1978 period. The minus sign (-) indicates surplus.

<sup>e</sup> Percentage change from December to December.

<sup>f</sup> For the twelve months terminating in the last month for which there are data available.

<sup>g</sup> The potential current account deficit is positive.

<sup>h</sup> The 1981-1985 trend values were calculated on the basis of the trend growth rate observed in the period 1968-1978.

<sup>i</sup> Up to 1981 the trend values were calculated on the basis of the trend growth rate recorded in the period 1972-1978; from 1982 to 1985 the trend growth rate estimated from data for the period 1950-1978 was applied.

<sup>j</sup> The 1981-1985 trend values were calculated for the period 1972-1978.

Indeed, whereas in 1981, after 30 years of uninterrupted economic development, over half the Latin American countries recorded production and employment levels above their respective trend values, in 1983 there were production gaps in all the countries of the region. They amounted to 18% in that year, to then expand to 21% and 25% in the two following years (see table 2).<sup>5</sup>

The welfare losses resulting from these output gaps were in the order of US\$ 690 to 810 billion in the four-year period 1982-1985. The former figure is almost equal to, and the second is greater than, the actual value of the total gross domestic product of the region in 1985.<sup>6</sup> For each dollar transferred abroad during that period around 7 or 8 dollars worth of production were

lost. We thus find ourselves faced with a phenomenal wastage of resources; again, production losses are not inherent in the adjustment process.

An adjustment so needlessly costly as the one suffered by Latin America may issue, rather, from an unwarranted dearth of foreign finance, i.e., from international capital market imperfections and procyclical lending policies by the international financial community; from deficient adjustment policies, i.e., from inadequate international conditionality as well as unsuitable economic policies in the countries themselves, or from both an untoward shortage of external finance and deficient adjustment policies.

<sup>5</sup>By definition, the output gap is equal to the difference between actual and potential levels of economic activity. In accordance with the conventional method, potential values of gross domestic product have been estimated on the basis of trend values. In practice, therefore, the output gap equals the shortfall between the actual level of economic activity and that which would have been achieved if the trend rate of growth had obtained. It measures production unrealized or foregone and gives an indication of the overall efficiency of the economy. For greater details on the calculations given here see note <sup>7</sup> below and note b of table 2.

<sup>6</sup>The lower figure was estimated by comparing actual and potential gross domestic product, both calculated on the basis of ECLAC figures on the amount of the regional gross domestic product in dollars at 1970 prices at the parity exchange rate. The difference between actual and potential product were converted to dollars of each year using conversion factors calculated according to the evolution of the United States wholesale price index. For values of the potential gross domestic product those of trend gross domestic product were used; these, in turn, were estimated on the basis of ECLAC data for the 1950-1978 period. (The estimate, carried out by the conventional method, recorded a trend growth rate of 5.63%.) The higher estimate of production losses was obtained by using the World Bank's annual calculations of actual gross national products in dollars and the data on the balance of payments supplied by the IMF and ECLAC, as well as a transformation of the estimate of the trend values of the gross domestic product. To the World Bank data were added the net

factor service payments of the corresponding balances of payments to obtain the actual values of the regional gross domestic product. (However, in the absence of World Bank statistics for 1985, a figure had to be obtained by multiplying its data for 1984 by the growth rate calculated by ECLAC for 1985.) To generate comparable values for the potential gross domestic product, the figures estimated with ECLAC data were converted by means of a factor of conversion to the value of the actual gross domestic product estimated on the basis of the World Bank data for that year. This conversion factor was calculated in accordance with the ratio observed between actual output (ECLAC data) and the trend values for 1982. To obtain those of the following years the trend growth rate estimated with ECLAC statistics was applied. The difference between the two estimates is mainly due to the fact that the World Bank calculations reflect the rises in the real exchange rates of the Latin American economies and therefore show an appreciable fall in the value of their gross domestic product measured in dollars, while those of ECLAC do not take these rises into account and record, therefore, a less unfavourable evolution of the regional gross domestic product. (The ECLAC figures for the gross domestic product in the period 1950-1985 were obtained from their data bank. The data for the net factor service payments were taken from ECLAC (1985a, 23, 30 and 31) and (1985b, 44 and 46).) For the World Bank data see World Bank (1985, 174-175) and (1984, 240-241).

### III

## Causes of inefficient adjustment in Latin America

### 1. *External causes*

#### a) *Scarcity of foreign finance*

The international financial community has shown itself reluctant to finance exceptionally large current account deficits for more than a few years, and even less disposition to do so for indefinite periods, even though such deficits may be attributable to transitory external shocks. Experience shows that several years of large deficits generally sees a retrenchment by the international financial community, apart from any consideration of efficiency from the standpoint of any one country or the system as a whole. Furthermore, although it may be highly detrimental to the international economy and the countries directly affected, such a retrenchment usually originates in rational decisions adopted by each individual bank.<sup>7</sup> International capital market imperfections are indeed responsible for a large part of the unnecessary welfare losses experienced by the Latin American countries in recent years.

If the international economy raises adjustment costs unnecessarily or shows itself incapable of coping efficiently with shocks, it is the duty of governments to implement compensatory measures. It was precisely considerations of this kind that led the governments to create the International Monetary Fund. Nevertheless, over time the lending capacity of the IMF was allowed to lag far

behind world trade and international capital flows.

Thus, while the ratio between the total value of IMF quotas and the value of world trade in the period 1950-1969 fluctuated between 9% and 11%, in the 1980s it was allowed to fall to an average of around 4% (IMF, several years). The value of the quotas of the countries in the IMF, which largely determines the amount of financing to which they have access, likewise fell markedly in relation to the value of their foreign trade and capital movements. It is not surprising, then, that in recent years, characterized by enormous shocks, there has been an irrational rationing of foreign credit. In fact, confronted by an acute shortage of funds in relation to developing country demand for credit, the IMF was forced to condition the use of its funds to the realization of huge adjustments by deficit countries. Although it is true that these adjustments would have occurred in any case in view of the retrenchment of the commercial banks, the Fund also promoted far-reaching adjustments in developing countries in the 1980s, apparently convinced that the drastic fall in their terms of trade was likely to be permanent (de Larosière, 1982).

After 1981, as a result of the restriction of commercial bank credit and the lack of a compensatory policy on the part of the international financial community, the actual capital flow to the non-oil-exporting Latin American countries eventually even fell below its trend value, in circumstances in which the impact of shocks continued to increase appreciably<sup>8</sup> (Ground 1986, table 7). As a result,

<sup>7</sup>As Sachs (1984) observes, "Recent theorizing has shown how such "herd behaviour" (the widespread paralyzation of new loans that occurred in 1982) can result from the rational decisions of individual banks. ...The main point of this theorizing is that each bank's loan decision is properly affected by the loan decisions of other banks. Since no bank alone can extend all of the credit that Mexico or Brazil needs to stay afloat, it is prudent for each bank to lend new money only if other banks are making new loans as well. Because of this interdependence of the banks' decisions, aggregate bank lending may stop not because the country's position has changed, but because each individual bank believes that all of the other banks have decided to stop lending. The prophecy of a loan cutoff can then become self-fulfilling". (The parentheses were added by the author; the content is from the article cited.)

<sup>8</sup>Actual long-term net foreign financing (including private unrequited transfers) ranged from US\$ 25 837 million in 1978 to 22 844 in 1979, 28 275 in 1980, 46 475 in 1981, 34 545 in 1982, 19 230 in 1983, 12 000 in 1984 and 6 000 in 1985. In its turn, the overall surplus on the capital account (including the net movement of short-term capital and errors and omissions) fluctuated from US\$ 26 208 million in 1978 to 29 092 in 1979, 29 546 in 1980, 37 287 in 1981, 19 881 in 1982, 3 220 in 1983, 10 206 in 1984 and 6 043 in 1985 (see table 1).

Table 3

**LATIN AMERICA: ESTIMATE OF THE DEFICIT (FINANCING) OWED AND THE ACTUAL  
FOREIGN FINANCING OF THE NON-OIL-EXPORTING COUNTRIES<sup>a</sup>**

| Country               | Estimate of warranted current<br>account deficit <sup>b</sup> |         |         |         |                   | Actual net foreign financing <sup>c</sup> |        |        |        |                   |              |      |       |       |                   |
|-----------------------|---|---------|---------|---------|-------------------|---|--------|--------|--------|-------------------|--------------|------|-------|-------|-------------------|
|                       |   |         |         |         |                   | Total                                     |        |        |        |                   | From the IMF |      |       |       |                   |
|                       | 1981  | 1982    | 1983    | 1984    | 1985 <sup>d</sup> | 1981                                      | 1982   | 1983   | 1984   | 1985 <sup>d</sup> | 1981         | 1982 | 1983  | 1984  | 1985 <sup>e</sup> |
| Argentina             | 3 522   | -4 242  | -7 424  | -3 371  | -5 318            | 1 261                                     | 1 592  | 1 102  | 2 561  | 2 700             | -            | -    | 1 238 | -     | 993               |
| Brazil                | -23 076   | -36 242 | -33 396 | -24 236 | -32 180           | 12 357                                    | 12 798 | 7 411  | 7 268  | 1 500             | -            | 551  | 2 167 | 1 788 | -66               |
| Colombia              | -1 286  | -2 687  | -2 932  | -2 794  | -2 368            | 2 104                                     | 2 125  | 981    | 593    | 885               | -            | -    | -     | -     | -                 |
| Costa Rica            | -1 533  | -1 340  | -919    | -1 469  | -1 389            | 347                                       | 384    | 418    | 465    | 460               | 51           | -4   | 106   | 25    | 19                |
| Chile                 | -5 099  | -5 442  | -4 807  | -5 706  | -6 269            | 4 592                                     | 970    | 1 248  | 2 376  | 1 230             | -68          | -40  | 613   | 221   | 198               |
| El Salvador           | -556  | -632    | -611    | -772    | -973              | 266                                       | 308    | 306    | 315    | 410               | 39           | 65   | 18    | -5    | -26               |
| Guatemala             | -407  | -431    | -780    | -949    | -973              | 279                                       | 362    | 323    | 378    | 160               | 113          | -    | 41    | 20    | -36               |
| Haiti                 | -324  | -263    | -487    | -511    | -392              | 231                                       | 110    | 182    | 195    | 170               | 18           | 12   | 31    | 14    | -10               |
| Honduras              | -470  | -609    | -688    | -697    | -821              | 272                                       | 261    | 261    | 325    | 360               | 24           | 68   | 50    | 2     | -15               |
| Nicaragua             | -622  | -1 001  | -704    | -708    | -912              | 610                                       | 574    | 536    | 539    | 580               | -21          | -3   | -5    | -4    | -9                |
| Panama                | -788  | -250    | -1 411  | -1 734  | -2 016            | 495                                       | 519    | 441    | 330    | 356               | 73           | -4   | 116   | 95    | 6                 |
| Paraguay              | -501  | -556    | -559    | -385    | -767              | 421                                       | 324    | 193    | 68     | 70                | -            | -    | -     | -     | -                 |
| Dominican<br>Republic | -879  | -1 386  | -1 405  | -1 201  | -1 586            | 425                                       | 346    | 475    | 292    | 290               | -21          | 49   | 183   | -9    | -4                |
| Uruguay               | -45   | -201    | -190    | -479    | -1 224            | 510                                       | -162   | 111    | 295    | 125               | -            | 96   | 150   | -     | -93               |
| Subtotal <sup>f</sup> | -8 988  | -19 040 | -22 917 | -20 776 | -25 008           | 11 813                                    | 7 713  | 6 577  | 8 732  | 7 796             | 211          | 238  | 2 538 | 2 147 | -36               |
| Total                 | -32 064   | -55 282 | -56 313 | -45 012 | -57 188           | 24 170                                    | 20 511 | 13 988 | 16 000 | 9 296             | 211          | 789  | 4 705 | 2 147 | 957               |

Source: Ground (1986), on the basis of statistics from the ECLAC data bank and from *International Financial Statistics* of the IMF.

<sup>a</sup>Provisional figures, subject to revision.

<sup>b</sup>The warranted deficit is equal to the sum of the actual deficit and the total impact of the transitory external shocks on the balance of payments. It is also equal to warranted external financing (with minus sign).

<sup>c</sup>We define: actual net foreign financing is equal to the sum of the actual deficit on current account and the variation in total gross international reserves.

<sup>d</sup>Preliminary figures.

<sup>e</sup>January-November.

<sup>f</sup>Excluding Brazil.

Table 4

## TYPOLOGY OF SHOCKS

| Balance-of-payments variables <sup>a</sup>               | Adjustment   |   | Financing  |                            |
|--|--|---|--|----------------------------|
|  | Exogenous domestic shocks  | External shocks                         |  | Endogenous domestic shocks |
|  |  | Permanent                               | Transitory   |                            |
| Export quantum <sup>b</sup><br>a < t                     | — Depressed real effective exchange rate                                   |   | — Recession in industrialized countries  | — Natural disasters        |
| Average price of exports<br>a < t                        |  |   | — Recession in industrialized countries<br>— Abnormally high real international interest rates |                            |
| Import quantum <sup>b</sup><br>a > t                     | — Depressed real effective exchange rate<br>— Excess public sector deficit |   |  | — Natural disasters        |
| Average price of imports excluding oil<br>a > t          |  | — Inflation in industrialized countries | — Depreciation of United States dollar   |                            |
| Average price of oil<br>a > t                            |  | — OPEC 1 <sup>c</sup>                   | — OPEC 2 <sup>c</sup>  |                            |
| Net factor service payments <sup>d</sup><br>a > t        | — Excess net external indebtedness   |   | — Excess net foreign financing<br>— Abnormally high real international interest rates          |                            |
| Long-term capital account surplus <sup>e</sup><br>a < t  |  |   | — Reduction of credit supply by commercial banks   |                            |
| Short-term capital account surplus <sup>f</sup><br>a < t | — Depressed actual real exchange rate<br>— Excessive public-sector deficit |   |  |                            |

Source: Revised version of table 2 in Ground (1986).

<sup>a</sup> Deviation of actual values "a" from trend values "t".

<sup>b</sup> Of goods and non-factor services.

<sup>c</sup> For an oil-exporting country the permanent income gain from OPEC 1 (i.e., the 1973/1974 oil price shock) would justify a positive adjustment, that is, a structural increase of domestic absorption, while the windfall from OPEC 2 (i.e., the 1979/1980 oil price shock) would call for an accumulation of international reserves.

<sup>d</sup> Includes unrequited private transfers.

<sup>e</sup> Includes unrequited official transfers.

<sup>f</sup> Includes the item "errors and omissions".

the shortage of foreign credit suffered by the non-oil-exporting Latin American economies in the years 1982 to 1985 amounted to 63%, 75%, 64% and 84%, respectively, of the amounts they would have needed to achieve efficient adjustment processes —on the assumption that their economies were free of rigidities and lags. In other words, the external credit they received and retained covered, in the years indicated, only 37%, 25%, 36% and 16%, respectively, of the effects produced by transitory external shocks on their balances of payments (see table 3).<sup>9</sup> According to our calculations, these Latin American countries were obliged to effect an enormous overadjustment, although in 1982, as in 1983, a large part of the scarcity of credit was due to substantial deficits on the short-term capital account (including "errors and omissions").<sup>10</sup> Since their economies do in fact contain imperfections, this shortage of external credit was bound to lead to production gaps and consequently to the unnecessary welfare losses that the region has endured.

Although the oil-exporting countries maintained a surplus of foreign exchange during the early years of the 1980s the shortage of external finance suffered in 1985 by the Latin American economies as a whole reached an average of close on 70% of the amount they would have needed to cover their potential deficits on current account, that is, the deficits consistent with the maintenance of the economic growth rates that they achieved during the expansionary cycle of the postwar period (1950-1978), given the numerous shocks that their economies have endured in recent years (see table 4).<sup>11</sup> All in all, considering the heavy falls in their import quanta caused by the dwindling of foreign lending and, in some cases,

the pronounced rise in domestic demand for external assets (capital flight), the production losses suffered by the Latin American countries in recent years were, in fact, considerably lower than might have been expected, in the light of the close relation that existed between the growth in import quantum and the growth in gross domestic product in almost all the countries during the great postwar expansion (see table 5).

This result was of course decisively influenced by the application of domestic economic policies that fostered the production of tradeable goods and services. Thus, between 1980 and 1985 thirteen of the nineteen countries for which data are available increased their export quanta despite the decline (of 5%) in the value of world exports.<sup>12</sup>

What is more, eight of them achieved it in a higher proportion than the expansion (9%) of the quantum of world exports and six appreciably increased their share in the quantum of world exports. At the same time almost all the countries increased their production of importable goods and services.

#### b) *Transitory shocks or permanent shocks?*

Procyclical international credit policies —that is, those which result in excessive expansions of credit when countries are growing (as occurred in the 1970s) and inordinate contractions when they are in recession (as is happening now)— also are due to errors of judgment and differences of opinion regarding the nature of the causes of current account deficits of the developing countries.

In practice, the determination of the true nature of shocks is very problematic, since it involves judgments on the future course of

<sup>9</sup>The calculation of the effects of shocks is based on a systematic comparison of the actual and trend values of the balance-of-payments variables and the construction of a typology of shocks (see table 4). The methodology is given in Ground (1986).

<sup>10</sup>The marked negative balances recorded in 1981, 1982 and 1983 in the short-term capital account reflected the results of Argentina, Mexico and Venezuela. In fact, in 1981 the negative balances in Argentina and Venezuela equalled 146% of that recorded in the region as a whole, and in 1982 and 1983 the deficits sustained in Argentina, Mexico and Venezuela totalled 137% and 89%, respectively, of the regional deficits. (The cited statistics are from the ECLAC data bank.)

<sup>11</sup>The above-mentioned concept of scarcity of external finance, or what we may call the foreign exchange "gap", is calculated on the basis of the ratio between the actual current account and the potential current account deficit, where the latter is defined as the deficit that would be observed if the quantum of imports of goods and non-factor services equalled its trend value, given the actual values of the other balance-of-payments variables. For further details see note <sup>d</sup> on table 2.

<sup>12</sup>The figures for world exports refer to goods only (IMF, several years).

Table 5

**LATIN AMERICA: GROWTH RATE OF IMPORT QUANTUM AND  
OF GROSS DOMESTIC PRODUCT, 1950-1985**

| Country            | Trend growth rates,<br>1950-1978 |                              |                | Actual accumulated<br>variations, 1980-1985 |                              |                                |
|--------------------|----------------------------------|------------------------------|----------------|---|------------------------------|--------------------------------|
|                    | Import<br>quantum <sup>a</sup>   | Gross<br>domestic<br>product | R <sup>2</sup> | Import<br>quantum <sup>a</sup>              | Gross<br>domestic<br>product | Export<br>quantum <sup>a</sup> |
| Argentina          | 2.00                             | 3.56                         | .655           | -60.2                                       | -12.0                        | 49.5                           |
| Bolivia            | 5.01                             | 3.94                         | .902           | -28.0                                       | -11.2                        | -30.9                          |
| Brazil             | 5.39                             | 7.48                         | .684           | -40.0                                       | 10.0                         | 56.8                           |
| Colombia           | 3.40                             | 5.11                         | .813           | 0.2   | 11.1                         | 3.3                            |
| Costa Rica         | 7.98                             | 6.78                         | .981           | -23.3                                       | 1.4                          | 15.7                           |
| Chile              | 4.45                             | 3.34                         | .831           | -48.5 <sup>b</sup>                          | -6.0 <sup>b</sup>            | 26.1 <sup>b</sup>              |
| Ecuador            | 3.74                             | 6.00                         | .959           | -26.3                                       | 13.0                         | 33.7                           |
| El Salvador        | 5.98                             | 5.30                         | .953           | 4.2   | -10.6                        | -24.8                          |
| Guatemala          | 5.43                             | 5.25                         | .912           | -32.0 <sup>b</sup>                          | -6.7 <sup>b</sup>            | -9.8 <sup>b</sup>              |
| Haiti              | 2.93                             | 1.65                         | .781           | 5.3   | -1.8                         | 12.2                           |
| Honduras           | 5.45                             | 4.27                         | .959           | -2.5  | 3.1                          | 2.6                            |
| Mexico             | 4.50                             | 6.62                         | .906           | -45.7                                       | 0.6                          | 24.7                           |
| Nicaragua          | 4.03                             | 5.71                         | .954           | -0.1  | 4.8                          | -23.5                          |
| Panama             | 7.17                             | 6.51                         | .987           | -14.0                                       | 12.3                         | -3.4                           |
| Paraguay           | 5.53                             | 4.62                         | .946           | -7.7  | 12.5                         | 3.3                            |
| Peru               | 5.45                             | 4.78                         | .914           | -31.2                                       | -2.9                         | 4.6                            |
| Dominican Republic | 6.78                             | 5.77                         | .944           | -23.0                                       | 8.2                          | 33.3                           |
| Uruguay            | 0.89                             | 1.40                         | .129           | -50.2                                       | -16.8                        | 6.5                            |
| Venezuela          | 3.65                             | 6.07                         | .485           | -39.8                                       | -9.6                         | -20.6                          |

Source: Prepared on the basis of data from ECLAC's data bank.

<sup>a</sup>Of goods and non-factor services.

<sup>b</sup>Actual accumulated variations 1981-1985.

events. In fact, it is impossible not to make mistakes when it is a question of predicting whether shocks are permanent or only transitory.

A good example of the negative results of mistaken predictions is provided by the case of the oil price shocks. Whereas the first jump in the relative price of crude has persisted for more than a decade and seems likely to remain in force for an indefinite period, the second has eroded completely. However, the international financial community initially judged that the

first oil shock would be transitory and the second permanent and acted accordingly.<sup>13</sup>

<sup>13</sup> For example, in 1981 the World Bank (1981) adopted as its "...central price assumption... an annual increase of about 3% in real terms (in the price of oil) from 1980 to 1990, i.e., from US\$ 20.50 to US\$ 42 in constant 1980 dollars. Given this long-term perspective, the projections should remain unaffected by factors such as the softening of prices in mid-1981" (World Bank, 1981, 40). (Brackets added by author.) In the following year the institution maintained its prediction of a significant increase in the real long-term price of oil, although at a lower rate than that forecast in its previous report (although it extended it to 1995):

Thus in 1974, under the aegis of the IMF, a special service was created for the granting of non-conditioned loans to help to cover the deficits caused by the first oil crisis. At the same time, by means of the so-called recycling process, the international commercial banks helped to finance the impact of the large increase in the relative price of hydrocarbons. In contrast, after the second oil crisis of 1979-1980, not only were no new facilities created to soften the impact of the new rise in the real price of oil on the balances of payments of the importing countries, but from 1982 onwards, the granting of credits was drastically reduced, just when the deficit countries found themselves affected by a new series of powerful external shocks. In short, from an efficiency point of view, the international financial community provided a generous amount of credit when circumstances did not warrant it and, after the retrenchment of the commercial banks, it did not lend a cent in circumstances which really called for it.<sup>14</sup>

It also may be noted that the dichotomy between permanent and transitory shocks usually is not interpreted with due precision. For example, if we adhere to the strict meaning of a permanent change in international market conditions, permanent shocks are unusual from

a historical standpoint; even secular relative price shocks are infrequent.

In this connection, mainstream economists used to argue that there are no secular relative price shocks, much less permanent ones. Witness all the abuse heaped on Raúl Prebisch when he maintained, in 1949, that Latin American countries' terms of trade had suffered a secular deterioration since the 1860s and argued that these countries should therefore actively promote structural adjustments in their economies in order to return to their potential growth paths (Haberler, 1960; Prebisch, 1949).

In contrast, in the decade of the 1980s the developing economies are obliged to adjust to the impact of these shocks, frequently almost instantaneously. It is as though international shocks suddenly had become permanent phenomena.<sup>15</sup>

In the light of these considerations and in view of the costs inevitably involved in a brusque adjustment process in economies affected by rigidities and lags, it may be that in the interests of efficiency virtually all external shocks should

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"After rising until mid-1981 the real price of oil fell for a period, as it did from 1975 to 1978; but this fall is not likely to affect the long-term upward price trend. This trend is determined by demand and supply conditions, which have not substantially changed over the past year. ...A real increase in the price of oil of some 2% annually from 1982 to 1995 seems most likely..., although it is impossible to be precise about the trajectory" (World Bank, 1982, 34).

<sup>14</sup>It should be remembered, however, that if efficiency considerations indicate that adjustment should take place, they also would call for it to be that phased in, according as the economy is affected by imperfections. From this standpoint, a temporary supply of external credit would have been justified after both oil crises. On the other hand, the trajectory of the international price of oil may not be independent of the willingness of the international financial community to accommodate or not system-wide, petroleum-related current account deficits. A decision to cover such deficits indefinitely might prolong petroleum price shocks, whereas a decision not to finance them might shorten their duration, inasmuch as the extent of the rise in the domestic relative price of oil at the country level varies inversely with the degree of accommodation of the system-wide balance-of-payments impact of petroleum price shocks. Once again, a phased in but progressive adjustment might constitute the most efficient response, irrespective of whether these shocks are regarded as transitory or permanent.

<sup>15</sup>Consider, for example, the response made by Mr. de Larosière to a question about whether IMF conditionality was tightened in mid-1981: "If a country runs a balance-of-payments deficit amounting, let us say, to 8% of its gross domestic product (GDP), and if in that particular case its sustainable deficit is considered to be in the order of 2% of its GDP, an adequate three-year adjustment programme would imply an adjustment of some 2 percentage points a year in the deficit of that country. But suppose now, for the sake of the argument, that this same country has moved into a worse balance-of-payments position; for instance, a deficit of 12% instead of 8% of GDP because of an irreversible deterioration in its terms of trade and/or because of a slippage in its domestic financial policies. Its long-term sustainable financeable position has not by the same token changed and it is still, in my example, at 2% of GDP. The necessary adjustment would imply a reduction of a little more than 3 percentage points a year in the course of the three-year programme. Now, in such a situation, which in fact often happens and has occurred in 1980 and 1981 with the worsening of international recession, the perception might have arisen that conditionality had tightened. But what has really happened is not a tightening of conditionality *per se*; it is a worsening of the external conditions of the country in question and the need for more adjustments" (de Larosière, 1982, 4-5). Did the then Managing Director of the IMF mean to imply that the international recession would be a permanent phenomenon or that it was a result of the domestic policies of developing countries? Did the IMF base its policies on such premises? Moreover, in the last sentence of the quotation no reference is made to the need to distinguish between transitory and permanent shocks, rather, it is stated that countries should adjust when external conditions deteriorate.

be regarded as transitory and, in consequence, their effects eligible for temporary financing.

Yet, transitory shocks are not uniform in character: they may be strictly cyclical, i.e., the counterpart of a past or future change in the opposite direction; or they may be asymmetrical, i.e., a change which, although transitory, is not and never will be the reflection of a movement in the opposite direction.<sup>16</sup>

Although the deficits caused by cyclical transitory shocks could be sustained without external borrowing —through the use of the international reserves accumulated during the favourable phase of the cycle— the financing of deficits caused by asymmetrical shocks implies the accumulation of external debt. It is possible to envisage cases in which transitory external shocks require a certain degree of adjustment in the interests of efficiency.

### c) *The shortcoming of international conditionality*

The belief that the International Monetary Fund's adjustment programmes impose unnecessary losses is widespread in developing countries. Although the recessionary bias of these programmes is basically due to the untoward shortage of foreign finance, the IMF's adjustment policies also involve unnecessary costs.<sup>17</sup>

## 2. *Domestic causes*

### a) *Domestic versus external shocks*

The implementation of countercyclical policies, during the recessionary phase of the cycle implies the application of countercyclical policies during the expansionary phase as well. If the domestic policy stance is instead procyclical during the growth phases as well as expansionary during the recessionary phases —a pattern that more or less describes the postwar experience of most of the Latin American

countries until the advent of the present crisis—the external debt grows progressively, thus weakening in the long run the country's growth capacity and room for manoeuvre. Such a pattern eventually erodes the very rationale for countercyclical policies, international as well as domestic. However, phenomena such as the insufficient growth of the production of tradeable goods and services, excess external indebtedness, the retrenchment of commercial banks and capital flight are conditioned by shocks emanating from the international economy as well as by shocks stemming from untoward domestic economic policies.

*Excess external indebtedness.* One of the manifestations of the shocks deriving from domestic economic policies is the excessive expansion of the import quantum.<sup>18</sup> During the 1970s and up to the early 1980s numerous Latin American countries immoderately expanded the domestic absorption of goods and services (real domestic expenditure). Although from 1982 onwards the reverse occurred as import quanta were slashed drastically the legacy of its inordinate previous growth remained, in the shape of an excess stock of external debt.

However, these spending sprees were due as much to supply side shocks as to domestic economic policy shocks. Money (i.e., nominal) domestic demand can evolve independently of supply, but the domestic absorption of goods and services is necessarily the result of the interaction of nominal domestic demand and supply, including of course both domestic production and net imports (foreign savings or finance).

The eagerness of the international commercial banks to fuel this prodigality—to finance current account deficits which, from the standpoint of efficiency, should not have been sustained—apparently reflected the banks' drive to adjust their portfolios after decades of little activity in the developing countries, as well as the international capital market imperfections that impelled bank lending to Latin America beyond the optimum or desired

<sup>16</sup>The oil crisis of 1979/1980 might be an example of this last type of transitory shock.

<sup>17</sup>For an analysis of the deficiencies of IMF adjustment policies see Ground (1984). See also Williamson (1983) and Killick (1984).

<sup>18</sup>Here the words excessive and excess and their synonyms refer to the difference between actual and trend values of the variables in question.

amount (Devlin, 1984a and 1984b; Sachs 1984).<sup>19</sup>

In any event, "takes two to tango". The responsibility for the immoderate expansion of domestic spending or the untoward postponement of adjustment devolves as much on the international commercial banking community—which lent the money—as on the countries themselves—which borrowed it. From this observation issues the criterion of shared responsibility (or, as Prebisch said, "shared irresponsibility").

Although domestic policy shocks as well as permanent external shocks do call for adjustment, the burden inherited through not having adjusted to these shocks in the past—i.e., the (net) interest payments generated by the corresponding excess (net) external debt—is a joint responsibility. Consequently, half these interest payments should be financed by the international banks.<sup>20</sup>

As this has not occurred, the Latin American nations have found themselves faced with the dilemma of enduring an even more intensive adjustment or failing to completely fulfil their foreign commitments. In the event, the countries have chosen to make an effort disproportionate to their responsibility in the handling of the debt problem. Indeed, after sharing the financing of interest payments with external sources in 1982, the region as a whole financed 89% of its interest payments in 1983, 78% in 1984 and 89% in 1985 (see table 1).

*The reduction of foreign financing.* A fall in the net inflow of long-term capital below trend, may well be a response to domestic policy shocks. Yet, as the pervasiveness of the curtailment of foreign finance in recent years suggests, factors beyond the purview of developing countries frequently exercise more influence than do their domestic policies on the

decisions of the international financial community to lend them money. Even if a decline in the net inflow of capital below trend were to coincide with domestic policy shocks or a permanent deterioration in external conditions, the fact is that this decline necessarily involves a greater adjustment than that required by such shocks *per se*. Indeed, unless the country has access to additional foreign financing, shocks inevitably entail a proportionate reduction in the current account deficit. Hence, from the efficiency standpoint, whether a fall in the surplus on the long-term capital account below trend warrants compensatory foreign financing from sources such as the IMF depends solely on whether the fall is considered transitory or permanent.<sup>21</sup>

*Capital flight.* When external shocks are large domestic demand for foreign financial assets may surpass trend, in spite of the absence of domestic policy shocks.<sup>22</sup> Nevertheless, when capital flight is unleashed domestic policies cannot be considered adequate however much the phenomenon may have been ignited by transitory external factors. Indeed, while developing countries cannot always obtain all the foreign finance they need, even if their domestic policies are adequate, they can certainly halt capital flight by applying appropriate exchange rate, fiscal and monetary policies.

The Latin American nations can hardly expect the international financial community to provide them with an adequate volume of credit

<sup>19</sup>A patent example of the procyclical bias of the international capital market was the overindebtedness of the oil-exporting countries during this period.

<sup>20</sup>Note that excess net external indebtedness may reflect policy responses to the impact of transitory external shocks. For efficiency's sake one hundred per cent of the corresponding net interest payments should be financed (first with excess holdings of international reserves and when these are exhausted with foreign credit).

<sup>21</sup>However, if shocks emanate from domestic policies or the economy has been subject to permanent external shocks, the provision of foreign financing to compensate for a temporary decline in the net inflow of long-term capital below trend should be made to depend on the implementation of appropriate domestic policies.

<sup>22</sup>In fact, as Carlos Díaz-Alejandro (1984) observed: "Both capital flight and tax evasion by foreigners are openly encouraged by private and public actors in OECD countries. During 1984 there were reports that United States banks were engaged in high-powered campaigns to sell their certificates of deposit in several Latin American countries. The United States Treasury has announced plans to sell securities to foreign investors, who will not have to reveal their names; new regulations will also allow United States corporations to sell bearer bonds overseas without resorting to offshore subsidiaries, and security concerns hope to sell to overseas investors bearer bonds backed by United States Treasury bonds. Behaviour not permitted to domestic citizens is encouraged among foreigners ... Increasingly, the international system offers Latin American middle and upper classes comfortable possibilities for capital and personal exit ..."

if their own citizens are sending their savings out of the region. And even if the international commercial banks were willing to finance capital flight, the accumulation of external debt for this purpose, like the accumulation of external debt to compensate the balance-of-payments effects of any domestic policy shock, are expedients which in the long run are more costly than the alternative of adjustment. In consequence, when capital flight occurs adjustment, rather than foreign finance, should be resorted to.

b) *Domestic structural and institutional imperfections*

The inefficient adjustment of the Latin American economies also is rooted in domestic structural and institutional defects, which hamper the full employment of their productive factors, impart an inflationary bias to the price

level and help to create a chronic dependence on external credit. In contrast to excess external indebtedness, these imperfections constitute a legacy attributable solely to flaws, in past domestic policies. Nonetheless, like excess external indebtedness, this is a phenomenon that can only be overcome in the medium and long term. Consequently, although the minimization of the cost of adjustment implies a phased process—since otherwise it will involve needless welfare losses—the rationale for the temporary financing of the impact of shocks also would call for the implementation of far-reaching policy reforms designed to mitigate the domestic structural and institutional defects that help to create an overdependence on foreign financing to sustain economic growth during the expansionary phase of the cycle and to avoid gratuitous welfare losses during the trough of the cycle.

## IV

### Proposals for reform

#### *1. The strengthening and flexibilization of the lending capacity of the IMF*

In the last five years the international financial community has denied Latin America transitory financing of the balance-of-payments impact of shocks and therefore time for an efficient adjustment. From this incongruency issues, from a normative point of view, a large part of the needless welfare losses suffered by the Latin American peoples during recent years.

An ideal reform of the international capital market would reconcile the supply of resources available to the IMF, plus those it catalyzes from other sources, with the changing international demand for liquidity, and harmonize the amount of resources to which each country has access with each country's changing demand for foreign finance, on the basis of the efficiency criterion.

It is evident that this reform would involve an enormous increase in the IMF's lending capacity and therefore in the quotas of the institution's member countries. For instance, if we generalize from the 1982-1985 experience of the non-oil-exporting Latin American countries in respect of the effect on their balances of payments of the transitory external shocks and the capacity shown by the IMF to catalyze and mobilize resources from the rest of the international financial community for these countries (see table 3), we would be speaking of an increase of over 350% in IMF quotas. This would have an approximate gross cost of over US\$ 8 billion for the member countries of the Fund.<sup>23</sup> In this connection, it may be recalled that our estimates of the unnecessary welfare losses suffered by Latin America in the 1982-1985 period ranged from US\$ 690 to 810 billion.

<sup>23</sup>This estimate was calculated from data on the gross cost that the latest rise (45%) in the quotas of the IMF agreed in December 1983 would signify for the United States (Cline, 1983). It should be noted that if the rise in the quotas results in a higher level of world activity, its net cost is proportionately reduced.

It must be recognized, however, that to offset the imperfections of the international capital market it is not feasible to transform the efficiency criterion into a fixed international policy rule. Indeed, it is impossible to determine beforehand or even in the event the magnitude that the IMF's financing capacity should attain in order to avoid needlessly costly adjustments for the simple reason that it is impossible to predict which international shocks will be strictly cyclical, i.e., the counterpart of a movement in the opposite direction; which will be transitory but not cyclical, and which will be permanent.

In view of the extent of our ignorance and the costs that any brusque adjustment necessarily entails for the imperfect economies of the real world, our proposal is that all current account deficits attributable to external shocks should be financed for a certain period, irrespective of whether they are considered transitory or permanent. In other words, the (external) shocks themselves would determine the degree of potential access of each country to compensatory external finance, rather than the system of fixed quotas set without regard to the potential size of shocks which is currently used in the IMF.

Said period might be fixed on the basis of the average historical duration of cyclical troughs in the international economy; the ideal would be to take into account the optimum velocity of adjustment of each economy. Every deficit country would have the option of phasing in its adjustment in the course of this period, that is, of being assured, let us say during a four-year period, of compensatory foreign finance equivalent, for example, to 80% of the total impact of the external shocks in the first year, 60% in the second, 40% in the third and 20% in the last. A more gradual process would be justified in the case of economies that could show that they were not in a position to adjust themselves efficiently within the conventional period.

The implementation of this reform would foster efficiency, at the country level by reducing the cost of adjustment and discouraging domestic policy shocks, since no external finance would be provided to compensate the impact of such shocks. At the same time it would tend to limit the accumulation of external debt to finance the impact of mutations in international market conditions and thereby would improve the performance of the developing economies in the long run. It likewise would allow the achievement of international levels of activity and trade higher than otherwise would be obtained; in particular, it would tend to diminish the intensity and shorten the duration of certain international shocks, such as the fall in commodity prices and interruptions in private capital flows to deficit countries.

Although it is equally impossible to calculate with any precision the lending capacity that the IMF would need to implement this reform, since the future magnitude of external shocks cannot be forecast with any certainty, it is possible to estimate in the event the influence they exercise on the balance of payments. The other element in our proposal for reform of current international adjustment policy is, then, the endowment of the IMF with a mechanism that will enable it to mobilize resources according to the changing magnitude of external shocks rather than to a rigid formula.

In this connection, the new adjustment programme agreed to between the Government of Mexico and the International Monetary Fund represents a very encouraging advance. Indeed, the programme proposed by the Mexican authorities to the IMF in their Letter of Intent of 22 July 1986<sup>24</sup> is designed in function of an economic growth target, the magnitude of future shocks and the capacity of the economy to adjust, instead of in function of a fixed supply of foreign finance, as had been customary in traditional IMF adjustment programmes. Hence the financing needs, as well as the performance criteria and policy understandings, are made subject to the trajectory of the price of oil, to an estimate of the

economy's capacity to sustain cutbacks in absorption without production losses, and to the evolution of economic activity in relation to the target for its recovery. As a result of a more effective use of the considerable bargaining power Mexico possesses thanks to the enormous size of its external debt and the interdependence of the United States and Mexican economies, the country is slated to obtain credit in the amount of at least US\$ 12 billion between August 1986 and December 1987 compared with the US\$ 4 billion originally proposed by the international financial community. What is more, if the international price of oil should fall below nine dollars a barrel, provision is made for additional credit to finance fully its balance-of-payments effects up to a sum of US\$ 2.5 billion for three quarters. Subsequently, the economy would adjust gradually to the effects of any such decline in the price of hydrocarbons over the course of five quarters. Conversely, if the international price of oil were to exceed 14 dollars a barrel, the amount of external finance would be reduced in proportion to Mexico's increased income from petroleum exports. Furthermore, the supply of credit would be raised automatically by US\$ 500 million to cover a supplementary public investment programme should the economic growth target not be achieved in the first half of 1987. Finally, by virtue of the priority assigned to the recovery of economic activity, no attempt will be made to stabilize and adjust the economy simultaneously.

A precedent thus has been established by the international financial community for the use of a normative, efficiency-based approach to deal with adjustment. Nevertheless, the extension of this new international policy approach to adjustment in all the deficit countries will require a persistent campaign to institutionalize it through the introduction of reforms of the type indicated. Otherwise, after the spectre of a Mexican moratorium fades, the international financial community will go back to the traditional approach.

## *2. The adaptation of domestic adjustment policies*

Without prejudice to the need for systemic reforms in the international capital market

<sup>24</sup>Published in *Excelsior* on 28 July of that year. It was announced on 29 September that the adjustment programme and the amounts of financing had been ratified by the IMF and the 500 creditor banks of Mexico.

geared to minimize the avoidable costs of the adjustment process, the gratuitous welfare losses suffered by the deficit countries also could be reduced with appropriate reforms in domestic adjustment policies, both in those promoted by the international financial institutions and those implemented through the initiative of the countries themselves.

In this connection, significant and positive innovations have taken place in the content and mix of economic policies implemented in some recent adjustment programmes in which the IMF has participated. Thus in 1984 the Fund approved —apparently for the first time— a countercyclical fiscal policy for the second year of a Stand-by Arrangement with the Government of Chile (10 January 1983). Indeed, the target for the non-financial public sector deficit was raised from the figure of 2.3% of gross domestic product actually registered in 1983 to 4.5% of projected GDP in 1984, with a provision for a further increase equal to 0.8% of GDP if additional external finance equivalent to that amount were to materialize. In contrast, the IMF traditionally has insisted that the adjustment programmes it supports include major cutbacks in the non-financial public sector deficit in relation to gross domestic product. In September 1984, during the course of this same Stand-by Arrangement, the IMF also accepted —once again, apparently for the first time— a rise in tariffs from 20% to 35% of the CIF value of imports, despite the fact that the measure appeared to run contrary to one of the articles of the agreement.

Elsewhere, towards the middle of 1985 the IMF agreed to the introduction of generalized price controls in one of the adjustment programmes in which it was participating, namely the Stand-by Arrangement concluded with the Argentine Government (28 December 1984). The acceptance of this measure, which aimed at reconciling the population's inflationary expectations with the authorities' monetary targets in order to minimize the recessionary effect of the stabilization plan (Austral Plan), marked another policy precedent in IMF-supported adjustment programmes.

Finally, the adjustment programme agreed to between the Mexican Government and the IMF also contains innovations in the economic

policy field. In effect, it combines a new approach to financial programming with structural and institutional reforms. Moreover, in contrast with traditional adjustment programmes, it does not seek to stabilize and adjust the economy simultaneously. In consequence, and thanks to the compensatory mechanisms agreed to as regards foreign financing, the targets for the criteria of execution will be provisional, depending on oil-price variations and the evolution of the gross domestic product, instead of fixed, as had been the norm. Moreover, a decidedly countercyclical exchange rate policy will continue to be applied. At the same time work will go forward on the structures of production and expenditure through far-reaching reforms of trade and taxation policy, the reduction and rationalization of the public sector and the active promotion of direct foreign investment. Finally, the target for the non-financial public sector deficit for 1987, representing 10% of projected gross domestic product, implies a reduction of no more than three percentage points from the estimated 1986 figure. This modest reduction is in line with the decision not to attempt to stabilize the price level while the economy is adjusting. For targeting purposes the effect of inflation on interest payments on the government's domestic debt will be excluded from the non-financial public sector deficit —another first for an IMF-supported adjustment programme.

Once again it is open to question whether these innovations constitute a new approach to adjustment policy, involve conjunctural deviations from the traditional paradigm, or whether they show that the IMF is in fact willing to adapt its policies to prevailing objective conditions, as it always has affirmed. On the other hand, they show that deficit countries are capable of putting over their points of view. At all events, there still may be room for improvement in the efficiency of the adjustment programmes sponsored by the IMF.<sup>25</sup>

<sup>25</sup>In another article the author presents a series of proposals for the palliation of the recessionary bias of IMF conditionality (Ground, 1987).

There is, at the same time, ample room for rectifying the cyclical stance of the domestic policies of the Latin American countries. Indeed, this is imperative to the achievement of their growth potential. In many countries, however, this would not suffice to reduce within a reasonable period of time the gap between the actual and potential rates of economic growth, due precisely to the legacy of past incongruences in the economic policy, i.e., the excessive accumulation of external debt and domestic structural and institutional defects.

It must be emphasized, therefore, that the criterion of shared responsibility for excess external debt as well as the existing untoward scarcity of foreign credit fully justify Latin America's vindication that the international

financial community should either provide more credit for interest payments on the external debt or reduce debt service payments. The region has considerable bargaining power since in the last three years (1983-1985) it has financed 85% of its interest payments on the external debt through domestic adjustments and production losses. This is a much higher proportion than it would have to assume if the costs of the excess build-up of external debt were distributed according to the principal of shared responsibility. On the other hand, the rationale for a true sharing of the costs of the excess external debt, as well as for temporary external financing of the impact of any external shock, implies at the same time reforms to mitigate domestic structural and institutional reforms.

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# Turning page in relations between Latin America and the European Communities

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The decisive factor which set Europe on the road to unity was a political one and not the result of a calculation about economic convenience. The absence of this factor explains the failure of the efforts made in Latin America to achieve effective co-operation in intra-regional trade or to unite national efforts around something more effective than joint statements.

The author argues that if it is to change its trade relations with the European Economic Community and with the rest of the industrialized world, the region will have to diversify its exports, especially by incorporating manufactures. This requires a policy of import substitution which takes that final goal into consideration, effective co-operation in intra-regional trade, and disciplined use of joint imports to improve access to world markets.

Up till now the region has believed that the export of raw materials would be sufficient to cope with its growth problems and to provide industry with the input and machinery it needs for its operation. However, the increasing difficulty of placing commodities in the industrialized countries, together with the heavy burden of external debt, has undermined the growth strategy based on this approach. Therefore, unless Latin America establishes a financial and trade relationship with the developed countries which satisfies its development requirements, very profound political changes may be brought about. Or perhaps, as in Europe, these upheavals may produce the necessary energy for the adoption of a new growth strategy based on regional integration.

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There is no lack of opinions —very respectable ones indeed— which hold that it is not worth the trouble to return once again to the relations between Latin America and the European Communities since these relations are beset with insuperable obstacles such as the common agricultural policy. Without denying the validity of this viewpoint, it is worth exploring, on the basis of this reality, the road which Latin America should take now that the post-colonial stage in its relations with the Old World has been completed.

The issue goes beyond farming, since for some years now it has not been only the countries exporters of foodstuffs which have been encountering difficulties in placing their products and indeed in obtaining reasonable prices; instead the problem has extended to almost all raw materials, including now oil. Nor are the disappointments limited to trade, for Latin America is concerned about, and even hurt by, the knowledge that Europe gives the region the lowest of priorities in its relations with the rest of the world.

Whereas the United States has never discriminated in its imports of tropical farm products, Europe does do so in favour of its recent colonies in Asia, Africa, and the Caribbean, although it was from Europe that the colonizers of Latin America set out and it was Europe which for many decades provided the main market for our region's exports. In contrast, the United States for better or for worse has always maintained its relations with Latin America at a high level.

## I

### The creation of the European Communities

The unification of Europe at the end of the Second World War inspired Latin America to do the same. The failure of this initiative did not lead to a better understanding among the parties: in the EEC Commission it is often said that one of the difficulties of communicating with Latin America is that it does not speak with one voice.

The reasons which made possible the establishment of the European Economic Community on 1 January 1958 were political. The emergence in the postwar period of two superpowers, the Soviet Union and the United States, relegated the European nations to the second rank. The fact that for centuries Europe had led the world in political, trade and military matters underlined the need to overcome old hostilities and forget the bloodshed in order to advance towards a unity which would restore the lost importance. To this was added the fear that communism would spread from Eastern Europe to the rest of the continent.

Another motive for European unity was the concern that, acting individually, each country would seek in a bilateral alliance with the United States a guarantee against the communist threat. The countries would thus become aligned, some with the USSR and others with the United States, and this bipolarity would increase the danger of a new war. In contrast, if Europe made itself into a third power capable of speaking as an equal with each of the sides, it would be able to act as a moderator in the conflicts, a role which it has in fact played all these years.

It was the desire for peace and not for economic advantages which produced the European common market. The reason for the repeated failure of similar initiatives in Latin America is precisely that the only driving-force has been an interest in the commercial benefits which might result from an expanded market.

The fundamental purpose in Europe was, on the one hand, to negotiate on an equal footing with the USSR with an eye on the advance of communism and, on the other, to make an alliance with the United States—which explains why that country from the outset supported the formation of the European Economic Community.

That the creation of the Community was not viewed with disapproval by the United States can be seen from the speech made by President Kennedy on 4 July 1962 when he proposed an association between "... the new union now emerging in Europe and the old union founded in North America 175 years ago". He added: "The United States views this vast undertaking with hope and admiration. We do not see a strong and united Europe as a rival but as an ally.

To co-operate in this undertaking has been the basic goal of our foreign policy for 17 years". For the Soviet Union, however, the European Economic Community has never ceased to be the commercial arm of NATO and, although this is quite contrary to its interests, it has still not recognized the Community's existence nor has an agreement been signed with COMECON.

An essential condition for a country to be a member of the European Economic Community is that it must have a democratically elected government. Although Article 237 of the Treaty of Rome establishes the right of all European countries to join the EEC, once the admission agreement is approved by the parliaments concerned, a doctrine is applied which corrects what the Treaty provides and gave birth to the so-called "Birkelbach Report" which states, *inter alia*, that "States whose Governments lack democratic legitimacy and whose peoples do not participate in the decisions of the Government either directly or through freely elected representatives may not seek to join the Community".

The application of this doctrine prevented Greece, Spain and Portugal from joining the EEC for many years, for their Governments were not democratic even though they were of the right. Here again can be seen the different weight of the political element in the integration process of Latin America, for not only has Latin America not demanded that a government be democratic as a qualification for entry but also, on the occasion of the rejection of Cuba's request for admission to LAFTA, the arguments brandished about were not political but related to the technical incompatibility of the centralized Cuban economic system with the system of tariff preferences which operated in LAFTA.

Latin America has never had the purpose of achieving true integration nor has it had political objectives in view, in contrast to what happened in Europe where the United Kingdom refused to join the Coal and Steel Community when it could not accept the supranational powers conferred on that body. In other words, compromises were made on many points in order to achieve a united Europe and the various parties yielded in their positions in order to reach agreement, but no dealing was accepted whenever vital considerations were at stake, such as the supranationality of the authorities of the integration organs

which is designed to make Europe one day into a single country or the political systems of the countries of Europe, which had to ensure respect for human rights.

Two aspects of the creation of the European Economic Community were negative for Latin America: the common agricultural policy and the special link with the old colonies. However, the creation of the EEC would not be thought necessarily to have harmed Latin American

interests. On the contrary, a world controlled by a single superpower is an inhospitable one for medium-sized and small countries, for it leaves them no other choice than to align themselves with it. The existence of two superpowers compels bipolarity, while the emergence of a third great trading force such as the EEC gives these countries greater mobility and brings the world closer to effective multilateralism.

## II

### The colonial legacy

The desire to give priority to its relations with its former colonies in Asia, Africa, and the Caribbean (ACP countries) offers a partial explanation for the European Economic Community's lack of interest in Latin America. This attitude originated in the concern of France, when the discussions about the formation of the Community began in 1957, that the colonial empire which it had at that time should have some access to the united Europe that was coming into being. France then possessed territories in Africa; Belgium had the Congo and administered Rwanda and Burundi, under a trusteeship agreement with the United Nations, in the same way that Italy administered Somalia.

France argued successfully in the EEC for a system under which in exchange for financial and trade advantages granted by the colonies to the new united Europe, Europe would contribute to their economic and social development with cash subventions, technical assistance and tariff preferences for the import of certain products, and these terms remained in place when shortly afterwards the colonies achieved their independence.

Early in the 1970s, when the United Kingdom joined the European common market, similar treatment was obtained for a part of what remained of its colonial empire, together with a guarantee that the preferences would be maintained for some imports from former colonies, such as beef and butter from New Zealand. This

being the case, when Spain began to negotiate for entry the Commission of the European Community requested it to clarify its relationship with Latin America, in order to prevent obstacles from arising later to the application of the common trade policy. In other words, the Community made sure that Spain would not request, as France, Belgium and the United Kingdom had done, special treatment for countries which once formed part of its empire.

The first convention between the EEC and 18 of its former colonies was concluded at Yaoundé on 20 June 1963 and the second at Lomé on 28 February 1975 with the signature of 46 former colonies. The next convention was ratified on 30 October 1979 with 64 former colonies. The convention in force since 1985 covers 65 former colonies.

One of the benefits enjoyed by the signatories of the Lomé Convention is that the greater part of their exports enter the EEC tariff-free, an exception being made in the case of products covered by the common agricultural policy. In this latter case the advantages are limited by quotas. These preferences have helped to improve the economic situation of the former colonies; it may be noted, for example, that rice enters the EEC on payment of a very low import duty, less than half the duty levied on other countries, including those of Latin America.

However, the preferences do have limitations which impede a greater improvement in

the economies of the countries concerned. For instance, there is no preferential treatment for raw materials and fuels since they are not taxed in the EEC; generally speaking, the growth of exports of foodstuffs is limited by quotas, and the treatment accorded to manufactures is not very favourable: for example, imports of cocoa butter is subject to a duty of 16% when they come from the ACP countries, whereas grain enters duty-free.

This colonial relationship has had a strong influence on the low priority which Europe accords to Latin America, for it reserves its best efforts for the 65 ACP countries. France is particularly zealous in this respect, to the point of making it a rule to prevent any funds being furnished or efforts being made with respect to non-ACP countries. Some weight also seems to be given to the idea that co-operation with Latin America amounts to competition with the United States and that therefore Europe should keep its distance. It is often not clear whether this is done out of respect for what is considered to be the sphere of influence of the United States or out of fear of giving the United States grounds for intervening in the affairs of the 65 ACP countries.

For example, in September 1980 the Community's Directorate General of External Affairs proposed to the Commission a revision of the EEC's policy towards Latin America. In support of this change it prepared a lengthy document stressing Latin America's importance now and up to the end of the century, stating: "The Community would be letting slip one of the great opportunities of the past quarter of a century if it did not give due attention to its relations with Latin America". It then presented a fairly modest plan for establishing links which did not go so far as to recommend more staff members to deal with the problems, although it did suggest some plans for visits and meetings. After examining the proposal the Commission rejected it despite its low cost.

A second example of discrimination against Latin America is provided by an initiative taken by the region and supported by some Europeans, mainly Italians, with a view to finding some fruitful area of co-operation between the EEC and Latin America. The chosen area was the campaign against foot-and-mouth disease. In May

1979 the diplomatic missions of Argentina, Brazil, Colombia and Uruguay submitted a report on this topic, subsequently supported by Bolivia, Ecuador, Paraguay and Peru. This report stated that foot-and-mouth disease affected the meat-producing countries, mainly beef producers (but also producers of pork and lamb), blocking their access to main world markets for fresh, chilled, and frozen meat and limiting it in the others; this means a reduction of 25% in production, both of meat and of milk, and that the export prices of beef are usually, every time supply exceeds demand, up to 50% lower than those for other countries free of foot-and-mouth disease. The report added that, since the EEC countries had made great progress in the eradication of foot-and-mouth disease from their own territory and in so doing had acquired very valuable experience (from specific vaccines for each case to effective inspection systems), there were broad possibilities for co-operation between the EEC and several countries of Latin America.

The Commission decided that the programme provided a suitable working basis and it decided that six experts should visit the countries concerned during the period October to December 1980 in order to produce a report and propose appropriate measures. The Commission's veterinary services then convened a meeting with diplomatic representatives of the countries interested in examining the results of the mission to discuss the methods which should be pursued. After this preliminary stage an actual anti-foot-and-mouth programme was to begin. As time was passing and there was no news, enquiries were made at one of the periodic meetings of the Heads of Mission of the Latin American countries with the Commission's services. The reply was that the Community would not undertake a major programme with Latin America in this or in any other area.

Reference was made earlier to the importance of the help which the former colonies of the EEC receive for their export products, but in fact almost the only thing which they can export without restrictions is raw materials. For this reason, as has happened with Latin America, their share in the Community's imports is declining: from 8.3% in 1970 to only 5.5% in 1984.

This experience of the ACP countries in their relations with their former metropolitan coun-

tries merely confirms the conviction that the time has come for Latin America to try to achieve a turnaround in its co-operation with the EEC. This does not mean that the assistance which the Community furnishes at times of disaster or to very poor regions is not appreciated, but when the amounts used for these purposes

—between US\$ 50 and US\$ 150 million over the years— are compared with the US\$ 30 000 million which the Latin American countries paid out in 1985 in interest on their external debt, it can be understood that this is not a matter which warrants the attention of governments.

### III

## Agriculture

The difficulties experienced by the EEC countries with other foodstuffs exporters, including those of Latin America, could have been avoided if at the time of the formation of the Community farm products had been excluded from the Treaty, as was later done by the countries which set up the European Free Trade Association. This did not happen because of France's great desire, supported by Italy and the Netherlands, to be able to export its agricultural production to the rest of the Community and because all the parties recognized the need to prevent a situation in which very large differences in food prices would have a different effect on the labour costs of industries which were supposed to be free from inter-community competition.

Article 39 of the Treaty of Rome states the purposes of the common agricultural policy: to increase production; to promote a fair standard of living for the rural population; to establish markets; to guarantee supplies; and to ensure reasonable consumer prices. It can be said that the EEC has achieved all its proposed objectives except for the last one, for the prices which consumers pay are somewhat higher than those prevailing in other countries, such as the United States.

From the strategic standpoint it is argued that it is not proper for Europe to depend excessively on overseas supplies, in the light of its bitter experience in the two world wars. During both wars Germany suffered food shortages as a result of the British naval blockade and it put the United Kingdom in the same situation with its submarines. For these past reasons and to avoid

future difficulties, the Europeans think it necessary to have a degree of self-sufficiency where food supplies are concerned.

There are also economic arguments in favour of agricultural subsidies. Although it is true that in Europe food costs more than in the international market, it is equally true that this did not have any social repercussions when in January 1961 the common agricultural policy was set in motion, for at that time all the industrialized countries were enjoying economic expansion unprecedented both in its intensity and in its duration. During the 1950s and 1960s living conditions in Europe improved to the point that the consumer could absorb the price increase without feeling it. It may be that now, when Europe's unemployment level shows no signs of declining because of its high labour costs, the price of food has some economic importance, but the public has already accepted it and in any event the governments are not taking action either with respect to the other reasons for the very high wages.

The common agricultural policy might have been established at lower prices if the Federal Republic of Germany, whose agriculture is less efficient than that of France and other EEC countries, had not succeeded in 1964 in increasing the grain prices contained in the Mansholt Plan. Now that the EEC would like to reduce grain production it was again West Germany which, in May 1985, vetoed a small reduction in the guaranteed price to farmers and obliged the Community to abandon a policy of discouraging surplus production.

The great industrial expansion which Europe experienced from the end of the 1950s up to 1973-1974 required large numbers of workers in the towns. It was feared at that time that the countryside would be depopulated and efforts were made to prevent this, at whatever cost, for it was believed that the countryside had a stock of human values not always found in the towns. One of these values is connected with the fact that, as the European producer usually owns his land, his outlook is more conservative than that of the industrial worker; it is therefore thought that keeping the largest possible proportion in the countryside enhances political equilibrium.

Another consideration taken into account in the policy is that neither in Europe nor anywhere else do consumers usually react in an organized manner against price increases. The agricultural producer, in contrast, protests when his remuneration is not what he expects, and in Europe they know how to do this very effectively by blocking the highway with tractors, tipping produce on to the roads, conducting a cow into the Commission building and also using their votes with determination to ensure that parliamentarians attend zealously to their interests. It is thus understandable that European politicians should be more concerned with the agricultural vote in their districts than with what is thought of the excesses of the common agricultural policy in the United States or Latin America.

With guaranteed and increasingly high farm prices, in a continent with good rainfall, with efficient machinery, with high quality chemical inputs and, above all, with the revolutionary seeds which genetics has made possible, it is natural that over these years capable producers like the Europeans should have exceeded all supply forecasts and should have achieved self-sufficiency in many cases, obliging the Commission to store the surpluses which it later dumps on the international market at subsidized prices.

At first the problems caused by the common agricultural policy affected almost exclusively the producers of milk and beef, so that they harmed the interests of only a few Latin American countries: Argentina, Paraguay and Uruguay; but when the subsidies transformed the EEC into a large-scale exporter of sugar and grain the damage spread.

Of course grain, excluding rice, is an important export only for Argentina, but the competition in the grain-based food markets is so fierce that it influences other products exported by Latin American countries, such as oil seeds and soya. Many countries are affected by the decline in the price of sugar; they are usually very poor countries with tropical climates which have few possibilities of cultivating other crops. The international price has declined in recent months to barely a third of production costs, with the result that the most efficient countries are being displaced from the international market despite the fact that the EEC pays its farmers five times the international price and the United States four and a half times that price.

An example of the damage caused by these subsidies is provided by Brazil, the world's principal sugar producer and the third exporter after Cuba and France. Brazil's production price is approximately half that of the EEC, but owing to the fall in prices resulting from the subsidies paid by the industrialized countries, it has not been able to increase the volume of its exports. Brazil's foreign-exchange earnings on the sugar account declined from US\$ 1 266 million in 1980 to US\$ 570 million in 1983.

Despite these conditions Latin America will continue to export farm products, for it has no other alternative. In doing this it has the unenviable advantage of desperation, whereas the protectionist farm policies of countries such as the United States, the EEC, Canada and Australia are a response to electoral demands rather than to a foreign-exchange problem. For several Latin American countries agriculture is the only means of economic development and they need to export their harvests in order to survive. This will lead in all probability to a considerable expansion of the production of certain grains, especially soya and maize in Brazil and Argentina, and of wheat in the latter country.

The decline in international prices is producing very important changes in the supply structure in the developing countries. For example the international price of beef in recent years has reached such a low level that Argentina's producers have opted to put their best land under cereals, the prices for which are also declining but still more profitable than for livestock. The gap left by Argentina in the international beef market has been filled by other countries, such as

Brazil and Uruguay, where the land is not always suitable for grain production. It might also happen, if grain prices fall even further, that the relationship between mean and grain will be reversed, and the cattle will return to the pampas.

In its economic relations with the EEC up till now Latin America has focussed its efforts on trade negotiations designed to avoid or circumvent the barriers erected by the Community against Latin American exports of farm products. Nothing effective has been achieved despite the considerable efforts made, which to a large extent have impeded the development of

much more realistic political and economic relations.

These claims are just, for the Community measures have interrupted the development of a commercial relationship which might be much more agreeable for Latin American interests, and they are causing the collapse of international prices. Since they are just, these protests will certainly continue to be made, but it should not be forgotten that they are hardly likely to be of any use since the Community's common agricultural policy has proved to be irreversible. The solution will therefore have to be sought through other channels.

## IV

### The export of manufactures

The basic economic difficulty of the countries of Latin America is that only Brazil and Mexico have managed to become relatively important exporters of manufactures, and these countries do not find their main advantage in technology, novelty or monopoly but in their low labour costs. Up to the 1970s the situation was much more favourable, for the industrialized countries were enjoying unprecedented economic expansion. The developing countries, including those of Latin America, benefitted from this growth with its increased demand for raw materials, foodstuffs, energy and even light manufactured goods. During those years the most important thing was the hope, almost the certainty, that it would be possible to emerge from poverty towed by the very intense and apparently endless prosperity of the developed countries.

Since that time the world has been turned upside down: the boom times have not returned, the demand for raw materials has ceased growing and their prices have declined. In addition, consumers in the industrialized countries instead of opting for more goods, prefer to have more services, such as holidays, health and education, the production of which requires few metals or other commodities. Something similar is happening with the rapid expansion of the electronics industry which is creating incomes

and jobs but with a weak demand for what the developing countries export. Agriculture offers an even more gloomy picture, as was seen above. The principle that when the industrialized countries grow the other countries do likewise has thus ceased to operate.

In addition to concentrating on its opportunities to export farm products, raw materials and fuels, Latin America will have to press for a reasonable policy of substitution of industrial imports and promote its regional economic integration. However, if it is effectively to overcome problems of the external sector, it will have to become a major exporter of manufactures, primarily to the industrialized countries.

Goods for export should include first and foremost those which involve technology, novelty or monopoly, although it must be acknowledged that in no circumstances can our peoples produce goods which can be sold on their manufacture or design merits, for that requires conditions which only flourish when there is sufficient political stability, observance of the law by governors and governed, proper order in economic and administrative matters, serious cultural and technological training and a minimum accumulation of public and private capital, conditions which do not always obtain in the region.

## V

## The problems of the EEC

One of the largest markets which Latin America could have for its manufactures is the European Community. However, the main economic problem now affecting the countries of the Community is unemployment, so that imports of industrial goods are not always welcome.

A high level of unemployment is not peculiar to the EEC, for the United States is suffering the same misfortune. But the average unemployment rate in the Community is 11% of the labour force, while in the United States it is only 7%. This difference is due to the unequal creation of new jobs, for between 1972 and 1983 wages in the United States declined by 37% in relation to the cost of capital, whereas in Europe there was no change. This is why European companies seek whenever possible to replace workers with larger capital investments and they have thus achieved a large increase in industrial productivity with very low employment growth. This high rate of unemployment leads to forms of protectionism which limit and to some extent eliminate the possibility of exports of industrial goods from countries such as those of Latin America.

In justification of protectionism it is argued that certain manufactures from the third world are very competitive because they are produced with very low labour costs combined with simple technology. In the developed countries these imports cause greater unemployment among poorly qualified manpower and they most affect those sectors of industry with the more obsolete machinery and working techniques. It is also asserted that in Europe workers enjoy good protection of their interests, whereas many enterprises in developing countries do not even apply the international rules adopted by the International Labour Organisation.

Of course those who think that labour is too cheap in the developing countries have some justification; but the great differences in the prices of some products also result from the fact that the wages and social benefits of European workers are quite out of keeping with their productivity.

Some developing countries have been successful in exporting simple manufactures, and this has prompted the industrialized countries to adopt doubly restrictive measures in comparison with the ones which hinder trade among these countries themselves; but there are reasons for these differences of treatment. The industries in which the developing countries have achieved efficiency are those which in Europe and the United States employ large numbers of workers with little specialized training. When a factory closes in the electronics sector, the workers and technicians who worked in it have the training which makes it easy for them to find work in other businesses in the same sector, which is expanding throughout the world. But this does not happen when workers in the textiles or footwear industries find themselves without work, for employees here are very numerous and their poor qualifications make it difficult for them to relocate. The fact that the people who lose their jobs are very numerous and poorly trained only increases the political pressure on the government to provide protection.

Another reason for the increase in protectionism is the generally widespread geographical distribution of the simpler industrial activities. As they are operating in various areas of a country, businessmen and trade unions are able to bring pressure to bear on a larger number of deputies and senators than can a more specialized industry located in only one place in the country. Nor should it be forgotten that big importers such as the United States and Japan have a greater capacity than individual developing countries to take counter measures against protectionism. In addition, the European countries have succeeded in organizing themselves in an economic community which gives them a combined strength which they would never have had acting alone, whereas the developing countries always act individually, so that they are hardly in a position to call for understanding on the part of purchasers.

## VI

### Latin America as a unit

Just as the EEC has acquired great weight in international trade discussions by virtue of the fact that 12 countries speak with one voice, Latin America could also improve its negotiating capacity if its nations joined forces. This would not be so important if GATT recovered its former standing, but since the beginning of the 1970s cases of transgression of its rules have multiplied, and the worst thing is that those most guilty of this are its founding members.

In November 1985 the United States and the EEC reached an agreement under which the EEC "voluntarily" agreed to limit its steel exports to the United States. However, the United Kingdom rejected the part of the arrangement which obliged the EEC to reduce its exports of semi-finished steel by half. The United States, in an attempt to overcome the resistance of the United Kingdom, announced that unless the United Kingdom accepted its position it would close its market for this product completely by the end of the year. In turn, the EEC threatened the United States with reprisals if it did not restore the original quota.

Trade reprisals, as a means of obtaining advantages in international trade, are not used only between the big countries but also against the others. Last year Canada decided that its beef imports from the EEC should be cut from 23 000 to 2 700 tons per year. The Community made different calculations which gave it 10 668 tons and it convinced Canada that the Community's arithmetic was better, threatening it with an increase in import duties for several products, including processed foodstuffs and whisky.

This is the world in which the countries of Latin America are trying to solve their problems by means of individual arrangements, either appealing for understanding or trying to make up for their lack of economic weight by talking louder.

The region had an opportunity to remedy this situation when its governments decided in SELA to convene a meeting to deal with relations between Latin America and the EEC. They also

arranged to hold a meeting of experts at Punta del Este from 20 to 24 November 1978 to make preparations for the ministerial meeting which was to take place the following year in Caracas.

At this meeting the Argentine delegation submitted a proposal that Latin America, or some of its countries, should consider a method of reacting jointly whenever the EEC requested "voluntary" restrictions or some other procedure which violated the spirit or letter of GATT. The fundamental reason for the proposal was that on 29 June 1978 the permanent representatives of the EEC countries and of the Latin American countries accredited to the Community had approved a series of conclusions, including the following: "If the evolution of the imports of agricultural products from the EEC is taken into account, Latin America would be able to increase its share in the total of Community imports only by diversifying its exports, especially of industrial products".

This was the first recognition of the need to turn the page in the relations between the EEC and Latin America, put an end to the claims of a past which would not return, and initiate a relationship in which trade in manufactures would occupy a relevant position.

However, protectionist pressures in the EEC continued to limit the export opportunities for industrial products, and this affected textiles, clothing, iron and steel products, footwear and shipbuilding. It was also clear that the resistance of Latin American countries acting in isolation was not sufficient to halt the advance of protectionism. In the period 1975-1977 the country with the largest imports from the EEC (Brazil) accounted for only 1.58% of the Community's total exports to the world. In contrast, the combined exports of the EEC to Latin America were large, as can be seen from the following table:

EEC exports to Latin America (5.7% of the total) were equal to almost half of the EEC exports to the United States, and almost three times its exports to Japan. It was also thought that, while it was desirable for a larger number of

EEC<sup>a</sup>: EXPORTS BY COUNTRY

(1975-1977 average)

| Countries   | Millions of dollars | Percentage   |
|---|---------------------|--------------|
| Latin America                                     | 9 463               | 5.7          |
| United States                                     | 19 321              | 11.7         |
| Soviet Union                                      | 6 184               | 3.7          |
| Japan   | 3 110               | 1.9          |
| Developing countries<br>(excluding Latin America) | 51 071              | 30.9         |
| Rest of the world                                 | 76 078              | 46.1         |
| <b>Total</b>                                      | <b>165 227</b>      | <b>100.0</b> |

Source: EUROSTAT.

<sup>a</sup>These are exports to countries outside the EEC by the nine-member European Economic Community (before the admission of Greece, Spain and Portugal).

Latin American countries to join together, it was not essential for each and every one of them to do so, for six countries (Argentina, Brazil, Colombia, Mexico, Peru and Venezuela) accounted for 80% of the exports of the EEC to Latin America.

The proposal, which was given the name of "symmetric treatment" provided that when the EEC requested the self-limitation of some industrial products exported from the countries of Latin America or wished to extend an agreement beyond the expiry date, the countries should agree to enter into negotiations but announce that at the same time they would choose one or several of the Community's exports to Latin America which, taken together, had a similar value in the base year as well as a similar rate of

growth; and the countries of Latin America would request a self-limitation of the export of these products on the part of the EEC similar to the limitation which the Community was requesting from them. It was explained that if the region or part of it approved such a policy towards the EEC it would have to do likewise with respect to any other of the world's developed countries in similar circumstances.

In the following year the Latin American Council of SELA approved Decision 44 which included the concept of symmetric treatment, not in the precise and direct language of the original but in a diluted version and accompanied with requests for co-operation and assistance that had nothing to do with the protection of the region's exports. The Decision thus dropped into oblivion, despite the fact that protectionism continued to spread in the industrialized countries and the situation of Latin America continued to deteriorate.

It was not possible to adopt any useful decision because in SELA any decision requires the agreement of all the member countries, and this often leads to application of the lowest common denominator method. If there had been the will to adopt an effective procedure, at least a group of countries could have tried this approach at the margin of the system. It is clear that, with respect both to economic integration and to the possibility of Latin America speaking about its interests with a common voice, even the requirements of political necessity which once prompted Europe to abandon its national positions to advance towards unity are still not present in Latin America.

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## The international division of industrial labour and the core-periphery concept

*Kimmo Kiljunen\**

The crisis has helped to increase the Latin American discussion of foreign trade, both as regards the underlying causes of the region's problems in this field and the most suitable policy measures for tackling them. In this context, this article is useful because it gives an overall summary picture of the main theories regarding the division of labour and trade at the world level.

The author begins by presenting the concept of comparative advantages in its different versions—classical Ricardian and neo-classical— together with some of the criteria put forward with a view to overcoming its limitations, such as those relating to factor proportions, product cycles, and stages of industrial growth. He then examines the theories opposing the idea of production specialization based on comparative advantages, particularly List's arguments on protection of infant industries, structuralist theories and their core-periphery concept, and the different forms of the dependency approach.

Towards the end of the paper, the author puts forward his own theories on the interpretation of the international division of industrial labour, based on a redefinition of the concepts used by the proponents of some of the foregoing theories, especially those of a structuralist nature: the role that a country plays in the international division of labour depends on the breadth and depth of its industrialization and, ultimately, its capacity to compete abroad. In shaping these conditions, a decisive role is played by the relative autonomy *vis-à-vis* the exterior as regards inputs and markets, the diversity of the industrial structure, the dispersion of a country's trading partners, the intensive use of skilled labour, and the value added in industrial production.

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Why do people trade? Basically, because it is to their advantage to do so. Different people and different nations possess different production abilities and resources and may want to consume goods in different proportions, and this opens up the possibility of profitable trade.

Progress in production, particularly in industrial production, is gradually reshaping the spatial division of labour, i.e., local, national and international patterns of economic specialization. This has involved changes in the set of goods produced and consumed (WHAT), changes in the process of production (HOW), as well as changes in the geographical distribution of productive capacities and activities (WHERE). These related questions form the foundation upon which both international trade theory and location theory have tried to build.

By definition, industrialization implies a deepening of the social division of labour and diversification of the production structure, which lead to expanding exchange relations. Hence, there are links between industrialization and the expansion of trade, including foreign trade. Overall growth of manufacturing activities has both facilitated and induced more trade.

But what causes a country or a region to specialize in producing particular types of goods? Why does one country buy certain goods from another, and who gains from the exchange?

### I

## The case for comparative advantages

In answer to the question concerning which goods are traded and why they are traded, economists since the time of Adam Smith have sought the answer in terms of international differences in costs of production and respective prices. Adam Smith demonstrated that two countries will gain from a division of labour via specialization and mutual trade when one is more efficient than the other at producing one type of product, but less efficient than its partner at producing another product. Consequently, a country will specialize in those activities in which it has lower absolute unit costs than the trading partner.

It was David Ricardo, though, who proved that there might be a gain through specialization and mutual trade even when one country is better than its partner at producing both products, if its advantage is greater in one product than in the other. This argument was based on the principle of comparative cost advantage, which has subsequently become the cornerstone of international trade theory.

### 1. *The classical approach*

The rational nucleus of the Ricardian principle is that through foreign trade a country may realize some relative advantages even when it has an absolute inferiority to its partners in every branch of production. It is only necessary that the degree of inferiority should be different in the various branches. Hence, in order to optimize gains through international trade, countries should specialize in the export of those products which they can produce at the lowest relative cost. It is this phenomenon of differences in comparative advantage that gives rise to profitable trade even among the most unequal of trading partners.

The principle of comparative advantage, as it evolved during the nineteenth century and became the basis for the conventional theory of international trade, was made to serve two distinct but interrelated purposes. First, it has been used to explain what determines the pattern and the actual flows of international trade. In this regard the theory may be considered to be "positive", in that it aims to explain what actually takes place. In the original Ricardian example, the most important factor affecting the pattern of international trade was the difference in labour time costs, i.e., in labour productivity between countries.

Secondly and more significantly, the theory of comparative advantage has been used to indicate that the international division of labour and the consequent international trade are beneficial. In this respect the theory is used in a "normative" sense as a proof of the advantages of free trade and as an explanation of what constitutes the best pattern of international trade.

Free trade, based on the principle of comparative advantage and promoting the international division of labour, has several major theoretical

advantages. The first is that trade enables all countries to escape from the limitations of their factor endowments and consume commodities in combinations that lie outside the limits of their production possibilities. All countries will benefit, although the gains may be disproportionately distributed. The second implication is that free trade will improve the efficiency of resource allocation and thus maximize output by permitting every country to specialize in what it does best —i.e., by focusing production on those goods in which the country has a comparative advantage. Thirdly, under free trade conditions the benefits of economies of scale may be optimized. Fourthly, there are some gains in efficiency, since competition from abroad encourages more efficient utilization of the factors of production within each firm and industry as well as making markets more efficient by increasing competition. Altogether, according to the theory, international specialization and trade can lead to global output increases for all traded commodities and secure the highest possible degree of economic welfare.

### 2. *The neo-classical approach*

Classical trade theory is based on the notion that differences in comparative real costs determine comparative advantage. The contemporary twentieth century application of the principle of comparative advantage, however, is in terms of opportunity rather than real costs. In this respect the modern version is essentially a simplified form of static neo-classical general equilibrium theory.

With a given factor endowment, a country can produce various combinations of commodities. The optimum pattern of specialization is determined by comparing the opportunity cost of producing a given commodity with the price at which the commodity can be imported or exported. At equilibrium, no commodity is produced that could be imported at a lower cost, and exports are expanded until marginal revenue equals marginal costs. The theory demonstrated that where production possibilities and the consequent opportunity costs differ, countries will gain from freer trade.

But why do production possibilities differ between countries? An explanation for this was

offered by two Swedish economists, Eli Heckscher (1919) and Bertil Ohlin (1935). According to them, differences in factor supplies (labour and capital as well as land and natural resources) between countries are the prerequisite for international specialization and profitable trade. Countries are endowed with different factor supplies; hence, relative factor prices will differ (e.g., labour will be relatively cheap in labour-abundant countries) and so too will domestic commodity price ratios and factor combinations. Since different commodities require production factors in different relative proportions, a country with a relatively good labour supply, for example, has a comparative advantage in the production of commodities which make abundant use of labour. This country tends, therefore, to focus on exports of labour-intensive goods in return for imports of capital-intensive goods from a country with relatively ample supplies of capital. Hence, each country will benefit from international specialization and trade by producing commodities that use more of its relatively abundant factors of production.

The Heckscher-Ohlin theorem, representing the basis of neo-classical trade theory, is an offshoot of the classical (Ricardian) theory of comparative advantage.

Both approaches lead to the same basic conclusion: free trade maximizes global output, with all participating countries sharing in the gains from specialization and trade. By enabling coun-

tries to obtain goods with which they are relatively less endowed at lower world market prices, trade is stimulating overall economic growth. It enlarges a country's consumption capacities and provides access to scarce resources and to worldwide markets.

Furthermore, free trade tends to equalize factor prices among trading nations —e.g., by raising relative wages in labour-abundant countries and lowering them in labour-scarce ones— so that international income inequalities decrease. This tendency towards factor price equalization implies that trade in goods substitutes for factor movements, because in a non-trade situation capital as well as labour would tend to move from areas where it is relatively plentiful to areas where it is relatively scarce. Thus, for example, relative wage rates in labour-abundant countries can rise either because of an increase in the demand for products with a high labour content or because of a movement of labour to a country where it is relatively less abundant. Hence, pure trade theory demonstrates that factor movements and commodity trade are substitutes.

The more mobility the factors are assumed to have between countries —as they are assumed to have within one country— the greater the applicability of industrial location theory in determining the patterns of the international division of labour. As B. Ohlin himself indicated, international trade theory reveals, in fact, one aspect of general location theory that is special only because frontiers are involved.

## II

### Qualification regarding the determination of comparative advantages

The conventional model for international specialization and trade, based on comparative advantage, is a static and simplified one. With its two countries, two commodities, two factors, perfect competition in product and factor markets, international immobility and national mobility of factors, identical production func-

tions and qualitative similarity of production factors between countries, it has been possible to demonstrate that there are advantages to be gained from specialization and free trade. But the required assumptions are too hypothetical and seemingly contrary to the reality of contemporary international economic relations. Hence,

the theory has to be accepted on its plausibility and internal consistency alone. Under the qualifying conditions mentioned, it is able to explain a hypothetical foreign trade structure, but hardly the actual trade patterns observed in the real world. With free trade, far from factor price equalization, there has been a tendency to factor price divergence, and thus international income inequalities have been increasing. Similarly, the theory leads to conclusions about the distribution of benefits from international specialization and free trade that are too simplistic.

The critical elements are particularly evident with regard to the explanation of the international division of industrial labour and the consequent trade patterns in manufactures. In primary products, the most obvious factors that explain international trade are natural resources (land of different quality, mineral deposits, climatic conditions; etc.). No sophisticated theory is required to show that the location of primary production is largely determined by natural factors and that the location of consumption depends largely on income levels. The pattern of international trade in manufactured goods is much more complex and more difficult to explain, because of a variety of options in the location of production. In what follows, the main concern is with the spatial distribution of production and the direction of trade in manufactured goods.

### 1. *New approaches to factor proportions*

The central thesis of the traditional Heckscher-Ohlin factor endowment theory has been questioned by Wassily Leontief (1954, 1956) and his followers. The famous "Leontief's paradox" demonstrated that United States exports have been more labour-intensive than its import-competing sector, despite the fact that the United States has been well endowed with capital and poorly endowed with labour, relative to other countries. Leontief tried to explain the paradox by the fact that the United States labour was three times more productive than foreign labour. He concluded that, although the working population in the United States might appear to be numerically small in relation to the capital stock, the quality of the labour is such that the effective supply is relatively great, i.e., capital is

relatively scarce in relation to the great skill and productivity of labour. Leontief has thus detached labour productivity from the supply of capital in order to support the neo-classical theory.

On the basis of the apparent paradox pointed out by Leontief, several attempts have been made to elaborate a trade theory. The major efforts have focused upon the incorporation of either technology (e.g., measured by R & D activity) or human capital (skilled labour) as additional explanatory factors in models of comparative advantage (Posner, 1961; Hufbauer, 1966; Keesing, 1967 and Vernon, 1970).

In the traditional model, technology and skills are assumed to be stable and universally available. Producers, regardless of their location, are assumed to be familiar with all technological options available, and they choose that technology which best suits their country's factor endowment. This approach, however, ignores technological change as well as differences in innovation and adaptation capabilities between countries.

The so-called "neo-technology" or "technology gap" theories, in contrast, emphasize that inter-country differences in innovative activities have become a critical factor in explaining patterns of international trade, especially as regards the exports of the industrially advanced countries. Leads and lags in technological innovation among countries determine the pattern of their specialization and the composition of their trade. The capacity for technical innovation is considered to be an essential factor in a country's competitiveness. For example, the United States competitive advantage is explainable in terms of a temporary monopoly given by the incorporation of new technology into a product or production process. This process of creating and incorporating the technology is relatively labour-intensive, hence explaining "Leontief's paradox".

The concept of "technological superiority" may include not only product or production technology, but overall "skill-endowment" such as entrepreneurial abilities, scientific capacities, the technical skills of the labour force, marketing skills, etc. In this respect, human capital may be treated as a separate factor of production, distinct from physical capital, in explaining

trade patterns. Altogether, these new approaches to factor proportions retain the structure and methodology of the traditional neo-classical trade models based on factor endowment, though they do suggest the incorporation of one or two additional variables.

## 2. *Product cycle theory*

Explanations of trade flows based on new approaches to factor proportions represent major qualifications to the traditional comparative advantage approach. These new explanations have been further analysed and integrated in the product cycle theory, which attempts to explain the international division of labour and trade patterns in manufactured goods on the basis of stages in a product's life (Vernon, 1966, Hirsch, 1967 and Wells, 1972). The theory proceeds from the premise that products typically pass through Early, Growth and Mature phases during their life cycle. These phases tend to be accompanied by changes in the relative importance of the various factors of production —skilled and unskilled labour, scientific and engineering know-how and capital and management ability. These changes have profound implications for international competitiveness, both in sectoral and spatial terms.

In the early phase of a product cycle, when new products or processes are introduced, the production is characterized by high skill-intensity, and it is the availability of skills which determines the location of manufacturing production.

In the growth phase, mass production and mass distribution are introduced. The product information and production know-how spread rapidly.

Finally, in the mature phase, product specifications are standardized and the production technology is stable and internationally widespread. The relative importance of external economies and of scientific and engineering inputs declines. The location of industry is, hence, more flexible.

The differences between trade models based on the product cycle and the traditional conventional trade theory are manifold. The latter is offered as an all-encompassing model, whereas

the former provides only partial explanations for trade flows in manufactured goods. Being theoretically less elegant, the product cycle approach is, however, more realistic in its basic assumptions. The conventional Heckscher-Ohlin factor proportions theorem is based on free availability of information and technology, perfect markets, and identical production functions and consumption patterns in all countries. The product cycle theory, on the contrary, is based on the assumptions that the flow of information and technology is restricted, particularly in R & D —intensive sectors, and that products undergo predictable changes in their production and marketing characteristics over time. For example, the production function changes with time in such a way that early in the life of the product it is more labour— and skill-intensive than later. Moreover, the production process is characterized by economies of scale, and consumption patterns differ by income levels in different countries.

The product cycle approach emphasizes that it is the skill content of production which primarily determines comparative advantage. The assertion that technology is not universally available and that the capacity for innovation is not equally distributed between countries is apparently quite realistic. High-income countries are better endowed than low-income ones with the factors which facilitate innovation: on the supply side, they have a developed technological infrastructure as well as an abundance of engineers and scientists; and on the demand side, potential markets for high-quality goods which are, in addition, large enough to justify the vast investments necessary to develop new products or technologies. Consequently, high-income countries can be regarded as enjoying a comparative advantage in industries which are characterized by a high rate of innovation and are producing goods in an early stage of their life. On the other hand, low-income countries with low labour costs have an advantage in mature standardized products. The production may even be transferred from high-income to low-income countries via the investments of transnational firms as a product passes through its life cycle. Hence, as the phase of the product life cycle changes, the relative importance of the various

location factors shifts, influencing the spatial distribution of production.

The product cycle theory contributes in two major ways to the analysis of the international division of labour and the consequent trade patterns. On the one hand, it indicates a gradually emerging eclectic view of international trade theory which suggests that there is no single explanation for the pattern of international trade. Different theoretical explanations are required to shed light on different types of trade relations, with respect to products or trading partners or both. The product cycle theory, in fact, accepts the conventional Heckscher-Ohlin factor proportions explanation for trade in mature products. Accordingly, as manufactured goods become more standardized and skill intensity decreases, the conventional major production factors —labour and capital— assume increasing importance in determining comparative advantages. Similarly, with regard to trade in primary products, comparative advantages are primarily determined by the natural resource endowment of the country.<sup>1</sup>

On the other hand, the product cycle approach introduces a dynamic element into trade theory. It offers a model for explaining and predicting changes over time in the composition and direction of trade. The theory shows why changes in the spatial division of labour are taking place and how the location of production is shifting between countries in different stages of economic development. New products are introduced in the technologically advanced countries. With mass production, technology becomes standardized and is diffused to intermediate countries, where capital has become more abundant and skills have been upgraded. Finally, countries in the early phase of industrialization concentrate on labour-intensive standard products.

Furthermore, the product cycle hypothesis may be used to shed light on development cycles in the industrial growth process itself. Hence, countries would be moving up from the early to the intermediate stage and subsequently to the advanced stage as industrialization proceeds, per

capita income rises and the demand pattern changes. Mature industries become less dynamic and less competitive, while new technology and skill-intensive industries emerge. These assumptions emphasize the need to make an explicit analysis of the industrial growth process itself before the factors behind comparative advantage can be explained.

### 3. *Industrial growth theories*

Historically, industrialization has by no means been a single uninterrupted, unitary, nationwide, nor even a world-wide process. On the contrary, different industries have developed unevenly in time and space. Nevertheless, despite this divergence in timing, industrialization is frequently considered to be an identifiable uniform process of growth and change whose main features are historically the same in all countries. Furthermore, just because of this divergence in timing, the uneven geographical distribution of industrial activities has paved the way for a spatial division of labour and induced the consequent trade relations.

Conventional industrial growth theories are based on the implicit assumption that there is a standard global pattern of industrial growth, progressing from one stage to another with homogeneous industrial structures and income levels. Following the pioneering work of Simon Kuznets (1959, 1971), who summarized this process in the term "modern economic growth", several economists and particularly economic historians have attempted to quantify the rate of structural and sectoral change inherent in the industrial growth process. Kuznets was particularly interested in investigating the relationship between levels of income and industrial output. Per capita income became the most important and universally applicable single measure to indicate the level of economic development. Historical studies have also shown considerable uniformity in the rise of manufacturing industry as growth proceeds. The possibility of a regular pattern of industrialization has been analysed by measuring the distribution of the national product and the labour force between major sectors as well as within the industrial sector.

Colin Clark (1940) introduced the division of each economy into three major sectors: primary

<sup>1</sup>Finger (1975) and Hirsch (1975) highlight the usefulness of the product cycle theory and the Heckscher-Ohlin theorem for explaining international trade patterns.

(agriculture and extractive industries), secondary (manufacturing and construction) and tertiary (services and trade). Accordingly, the main identifiable feature of modern economic development is the shift from primary production, through manufacturing, to tertiary industry. The three-sector model has been applied to all countries—irrespective of their size, level of development or structural features—and has indicated each country's location on the same universal growth line. Hence, economic development means the advance of national units along a single route, in which rapid industrialization is considered to be the main characteristic of progress. This type of conceptualization is common to general linear, "stage" models of development, of which the most influential representative has been W. W. Rostow (1960), with his "stages of growth" theory.

As the industrialization process proceeds, the structural transformation of the economy is no longer manifested in quantitative terms by the share of industry in production as a whole, but rather by sectoral shifts within industry. The product cycle hypothesis predicted that within manufacturing a general tendency is emerging in which mature and technologically simpler industries requiring primarily unskilled manpower lag behind, while R & D and skill-intensive industries are on the increase, as income levels rise. The first systematic study of how the sectoral pattern of manufacturing industry actually varies according to the level of development was made by W.G. Hoffmann (1958). He divided the industrial sector into consumer and capital goods and concluded that each country passes through four stages in its development, each showing a higher ratio of capital goods to consumer goods than the previous one. Hence, a single figure representing this ratio locates a country along the universal industrial growth path. Only the speed of passing through each phase may vary according to natural endowment or other factors, but otherwise countries experience similar patterns of industrialization.

A more sophisticated investigation with analogous assumptions has been represented by Hollis Chenery (1960) and Chenery and Taylor (1968). He criticized Hoffmann's choice of industries for being arbitrarily limited and for omitting several important sectors, and instead

he classified industrial sectors into three categories: capital goods, intermediate goods and consumer goods. The industrial growth patterns Chenery described were measured in terms of the income elasticity of growth. The lowest growth elasticities are mainly in consumer goods, while the highest are in capital goods and the principal intermediate goods used to produce them. Hence, Chenery came to the conclusion—similar to that of W. Hoffmann—that there is a strong connection between industrial development and the lead taken by capital and some intermediate goods industries over the consumer goods industries.

Exportable natural resources provide the principal basis for international specialization in pre-industrial economies. Correspondingly, in the very early stage of industrialization, resource endowment (including an abundance of labour) tends to be more important than other factors of production in determining the initial structure of comparative advantages. As industrialization proceeds towards the "transition" or "take-off" stage, relative endowments of physical resources (geographic conditions, area, population and raw materials) lose their significance, and differences in the capacities to use physical resources (the quality of the labour force, technology, capital, organizational structures) begin to have primary influence on the pattern of industrial growth.

The pattern of the international division of labour changes accordingly; there is a shift away from vertical trade—exchange of primary products for manufactures—towards horizontal trade—exchange of manufactures for manufactures. This underlines inter-country differences in specialization within the manufacturing sector. Here the contribution of industrial growth theories plays a role. These theories have attempted to investigate which products in the course of development of an economy are the first to be manufactured and which follow later and in which order. Taking into account country variations in levels of development and in the respective factor endowments, an optimal pattern for the international division of labour may be constructed on this basis.

Industrial growth theories offer a "stages approach" to the comparative advantage theorem. The pattern of international specialization

thus constructed suggests that less developed economies, being as they are in the early stage of industrialization, have a natural advantage in the production and export of mature, low-skill, resource-based and/or labour-intensive goods. The role of intermediate countries would be to concentrate on standardized industries with a relatively high capital-intensity, while the major prospects of advanced industrialized economies lie in technologically sophisticated goods with a high skill-intensity and a high value-added content. This type of international specialization pattern would be beneficial for all countries concerned. To achieve this, the "market principle" must be allowed to function without intervention.

There are, however, some problems related to the universal applicability of industrial growth theories and of the stages approach to comparative advantage. First, the industrialization process has obviously had certain common features both historically and spatially. Nevertheless, there is a major reason why patterns of industrial growth in less advanced countries may be expected to deviate from the observed historical patterns in already industrialized countries: namely, the very existence of the latter countries, whose earlier industrialization has substantially changed the external environment faced by later industrializers.

The economic historian A. Gerschenkron (1962) has formulated the thesis that the more backward a country is at the beginning of its industrialization process, the more likely it is to follow a different development path from that of its forerunners. The relative backwardness is explained by the absence of one or more of the required production factors, for which the country concerned has to "substitute" various alternatives. The path of the latecomers has therefore not been identical with that of the pioneering countries or even with other late industrializers: substitution has created different paths.

Secondly, and more importantly, different patterns of specialization have different long-run consequences for economic development. There are items which can rather easily be substituted or traded and others whose presence is vital for the overall industrialization process. Hence, the difference between marginal and fundamental trade should be brought into the analysis. Furthermore, structural differences between economies may lead to asymmetrical exchange relations and domination of a weaker partner by a stronger one, which thus may undermine the possibility of mutual gains from international specialization and trade. These types of problems are brought out by the structuralist approach to international economic relations.

### III

#### Theories opposing the idea of specialization based on comparative advantages

The trade and industrial growth theories presented in the previous sections have a common feature: they aim both to explain and to explore desirable patterns of the international division of labour, primarily in terms of the relative factor endowments and the respective comparative advantages. Depending on the approach, the location of production and the consequent trade flows are determined by specific resource requirements, by the relative availability of labour and capital, or by the availability of

human capital, including technological know-how. In addition, the availability of these production factors is determined by the stage of the industrialization process in each country.

There are, however, difficulties in using factor endowment as an independent and sole explanation of trade and specialization patterns. Furthermore, even more problematic is the conclusion that the predicted pattern of production and trade would be the optimal mix in the inter-industry allocation of resources between coun-

tries. Both the positive (determination of the pattern of trade) and the normative (gains derived from trade) propositions inherent in the factor proportions approaches are frequently criticized.

1. *The structuralist critique of the factor proportions approach*

According to the structuralist view, the international division of labour is primarily a function of relations rather than a function of scarcity. An empirical investigation of the international division of labour might confirm that what is abundant in the developed countries (skilled labour, capital, technology, know-how, etc.) is truly scarce in the less developed ones, and that this divergence is manifested in the respective specialization patterns. Nevertheless, the controversial elements in this concept are due less to the basic empirical phenomenon than to its causes. For structural analysis, the examination of national capabilities alone is not satisfactory. It focuses on the relationships between actors and emphasizes that the nature of the interaction has a strong influence on the observed differences in factor endowment as well as in levels of general development.

It is commonly accepted that differences in the availability of production factors affect the patterns of international trade and production. But structuralists seek to elaborate a theory of dynamic comparative advantages by stressing that the role of production factors cannot be abstracted from the overall social and economic development and external relations of a country (Helleiner, 1981 and Kiss, 1971). Factor endowment is not fixed, but is itself a product of socio-economic development, including past and present trade relations, international movements of capital and labour, as well as policy intervention. Hence, factor endowment cannot be taken as a given quantity, but must be regarded as one of the variables which may and have been affected by policy. For example, the different continental and country-specific combinations of production factors in developing countries today result from the historically coerced incorporation of these societies into the international colonial division of labour. Similarly, a country may be able to gear itself up to be

internationally competitive in industries in which it might not appear to have an inherent comparative advantage in static terms.

Furthermore, factor endowment only partially explains the current pattern of the international division of labour. The volume and pattern of trade also depend very significantly upon other elements such as marketing efforts and economies of scale, as well as upon international market concentration and intra-firm trade relations. Moreover, a crucial role is played by various institutional factors such as existing tariff and non-tariff barriers, trade preferences, special promotion measures, and State trading, including bilateral and barter trade arrangements. The comparative advantage approach—even with qualifications—thus does not provide an adequate explanation of the trade that does in fact take place. Analogously, it would be unadvisable to use the present factor endowment as the sole basis for trade policy recommendations.

The advocates of the comparative advantage theorem would, however, argue that from the point of view of the efficient world division of labour it represents a desirable rather than an actual pattern of specialization. If restrictive trade policies do inhibit an optimal division of labour, the required solution is to reject not the theory, but the distorting policies. In other words, the comparative advantage principle may be inadequate in "positive" terms to explain what actually takes place, but it still persists in a "normative" sense as proof of the advantages that can be derived from specialization and free trade.

The argument for international specialization put forward under the comparative advantage principle centres on the comparison of a trading situation with a non-trade situation. Each country would gain from trade by specializing in what it is relatively efficient at and exchanging these goods for what it is relatively inefficient at. No country will be adversely affected by trade, since each will attain at least the level of well-being that it would reach without external transactions. Hence, opening up a country to foreign trade is the best way to make use of the benefits of international specialization according to that country's comparative advantages.

That there is an aggregate benefit from specialization is incontrovertible. But the major question is: How is it shared and what are the long-term cumulative effects of a particular pattern of specialization? In a purely static sense, arrangements restricting specialization and foreign trade reduce the income and welfare of the world as a whole. But the classical argument that optimum allocation of resources is secured by free trade has not indicated the distribution of world welfare and income.

Depending on the nature of exchange and the structural conditions between trading partners, the benefits from trade may be distributed quite unevenly. This is the case, in particular, between countries with very large differences in production structure and level of development—the typical exchange situation between advanced industrial and less developed countries. Here the complementary nature of the trade relation does not need special explanation, but its advantageousness, on the other hand, is problematic. In this context, structural analysis is questioning not so much the composition of trade suggested by the comparative advantage principle, but the predicted consequences of such trade.

The factor proportions models are typically built up on a cross-sectional type of static account, whereas the international division of labour, according to the structuralist view, results from a historical process with differential, long-term, dynamic and stagnating effects for the participants. The question is what specific impact would be exerted on the production structure, overall industrial development, income distribution and consumption profiles by different types of specialization patterns. All participants may benefit from international trade and specialization provided their initial situations are fairly symmetrical. The problem arises in the case where the trading partners have unequal initial levels. If this question is raised, the fundamental difference between trading structures of a symmetrical and an asymmetrical nature becomes evident.

## 2. *The case for protection*

The German economist Friedrich List (1977) was the first who systematically challenged

—more than 140 years ago— the theory of classical English economics about the immediate advantages obtainable through the international division of labour and trade. List's concern was not to make a critical refinement of the comparative advantage and free trade principles as such, but rather to secure their applicability to all economies, especially with regard to those having a lower level of industrial development than the British economy, whose productivity surpassed that of all others at that time.

List considered the international economy to be hierarchical in structure, consisting of three tiers of countries. Great Britain was at the top of this hierarchy with an advanced industrial structure, thus putting ruinous competitive pressure on less advanced economies still in the initial phase of the industrialization process. On the second tier, List placed those countries which he assumed to be capable of attaining a degree of industrial maturity comparable to that of Great Britain, provided they applied appropriate economic and foreign trade policies to offset the negative influence of the British economy. Among these second-tier countries he included the United States, France and, in particular, Germany. On the third tier were the countries of the so-called torrid zones—corresponding to the Third World—which for natural, and especially climatic, reasons were incapable of generating a proper industrialization process. Their role in the international division of labour would be to remain producers of agricultural goods and raw materials and they would benefit from free trade.

List's criticism of the global free trade doctrine was particularly based on his concern for the fate of the second-tier countries. He emphasized that the comparative advantage principle has validity in the short run: every participant in trade gains by specialization. The long-run consequences of asymmetrical trade relations, however, would be the further development of the productive power of the pioneering and advanced countries, while the development potential of the industrial latecomers would be restricted. Hence, the latter must protect their nascent industries from the competition of more developed economies, while still maintaining free imports of raw materials.

List gave priority to the comprehensive generation of domestic productive forces, i.e., "pro-

duction of productive power", knowing that the introduction of protective tariffs, for instance, would cause the loss of the apparent, immediate advantages. To buy manufactures from abroad is usually far less expensive than to develop the pre-conditions for producing such goods locally. There would, however, be a problematic trade-off: the more an initially inferior economy buys from abroad, the more domestic manufacturing development is inhibited. Successful industrialization has depended not just on imports of advanced technology and capital goods, but also on the acquisition of the ability to generate technical progress and to produce the countries' own tools and equipment.

List introduced the famous infant industry argument for protection. This has been traditionally considered among free traders as one of the most acceptable justifications for interference in free trade. The argument is that in a free trade situation a country may never have a chance to develop the production and export of certain products in which it has a potential comparative advantage, because established foreign producers have an early start. Thus, the infant industry argument claims that in the long run the world as a whole will benefit from a selective temporary tariff. Logically, the argument implies an eventual phasing out of the degree of protection as the basis of industry is consolidated.

There are several other arguments opposing the free trade doctrine and the consequent international specialization pattern. The implicit cost/benefit calculation of the free traders is questioned by stressing the hidden social costs of international competition and internal reallocation of resources. There is a trade-off between economic growth and rising incomes through free trade, on the one hand, and internal economic integration and social security through protection, on the other. Hence, protection is frequently favoured in order to secure balanced income distribution within a country, to maintain full employment and a diversified industrial structure, to improve a country's terms of trade and balance of payments, or to safeguard some strategic sectors. It may be that the world as a whole is worse off as the result of such protection, but the country concerned aims to improve its own welfare position and to safeguard a more

equal distribution of gains from trade. Protection is thus considered to be a tool of structural policy having the same function as an active industrial and technology policy designed to support national industries against international competition.

### 3. *Structuralist theories*

The basic structure of the international economy which Friedrich List analysed still has similar features today, although the disparities within the world economy have become far more accentuated in the meantime. List analysed the development constraints of "second-tier" countries, whereas the structuralists—such as R. Prebisch, H. Singer, G. Myrdal, A. Hirschman, R. Nurkse, A. Lewis and F. Perroux—have primarily examined the effects of trade and specialization in "third-tier" countries and at a regional level within advanced economies. They have questioned the principle of specialization on the basis of static comparative advantages, which assumes that specialization is beneficial to all participants. The doubts have been particularly accentuated in asymmetrically structured relationships, such as those between less developed and highly industrialized economies. The possibility of an unequal international division of labour has been introduced, the central concept being the "core-periphery" imbalance. Furthermore, the tendency of international trade to reproduce spatial inequalities has been emphasized.

The structuralists have shown that the existing international pattern of specialization and trade is of much greater benefit to the core (where manufacturing production is concentrated) than to the periphery (which is destined to produce primary products). They have expressed the view that the benefits of international exchanges are different depending on the nature of the products traded. The existing division of labour is an obstacle to the economic development of the periphery, as was primarily demonstrated by H. Singer (1950) and R. Prebisch (1949).

They argue that one-sided specialization in primary products has made the peripheral economy very vulnerable to external cyclical fluctuations, the purchasing power of its exports is declining, it lacks the secondary and cumulative

effects of manufacturing production, and it has less scope for technical progress and productivity increases. As a consequence, there arise the problems endemic to a peripheral economy: a chronic trade deficit, increasing external indebtedness, price instability, low relative wage levels, structural unemployment, and frequently emigration.

While the main thrust of the Prebisch-Singer thesis focuses on the undiversified composition of the primary producers' trade, it could also be applied to the international division of industrial labour. One-sided industrialization without an internally integrated vital production structure may be very unfavourable as, for example, the Canadian staple theorists (Innis, 1938 and MacKintosh, 1939) have indicated by the concept of "staple traps". Concentration on exports of standardized resource-based products or on unskilled labour-intensive manufactures may create a vulnerable lopsided economic structure with few inter-industry linkages which is sensitive to business cycles and to the changes in technology and the tastes of core areas. These products also typically have a low income elasticity of demand, and thus the terms of trade tend to deteriorate in the long run.

Consequently, what is needed is a production structure with a wide variety of industries which would support each other on both the demand and the supply sides. Following this argument, several economists such as P. Rosenstein-Rodan (1943), R. Nurkse (1953) and A. Lewis (1955) have elaborated a strategy of "balanced growth", by which is meant simultaneous expansion of a number of manufacturing sectors and amplification of the size of the domestic market. The aim is to set off a general chain-reaction within an economy through the internal horizontal and vertical interdependence of industries.

The feasibility of a balanced growth strategy—particularly in small peripheral economies—has been questioned, however, by several authors, notably by A. Hirschman (1958) and F. Perroux (1955). Where are the resources for investments supposed to come from? How can the required administrative capacity be obtained? What is the optimal combination of industrial sectors and in what size of economy? Consequently, assuming fixed investment resources and limited administrative as well as

entrepreneurial capacity, the optimal pattern of investment would be one which concentrated first on one sector and then on another, with a balance being approached only in the long run. Thus, A. Hirschman proposed "unbalanced growth" and F. Perroux a "growth pole" as an alternative to the balanced growth strategy.

As far as industrialization in less developed economies is concerned, the normative implications of the static comparative advantage principle suggest specialization in exports of standardized labour-intensive or resource-based manufactures and imports of skill-intensive technologically sophisticated goods. This proposed division of labour would, however, petrify the existing disparities in the world economy between more developed and less developed economies according to both the balanced growth and the unbalanced growth models, since it does not provide the dynamic impetus for an internally coherent industrialization process in the latter economies. The peripheral economy may find itself locked into a stagnant situation which perpetuates its comparative advantage in the respective labour-intensive or resource-based production activities. This in turn will inhibit the domestic growth of the required physical and human capital as well as technical skills, particularly since the economy is surrounded by advanced industrial economies, which are capable of and highly competitive in supplying all the essentials needed. A cumulative process is therefore set in motion in which trade exacerbates the already unequal trading relationships.

G. Myrdal (1957) and A. Hirschman (1958) introduced the concepts of "backwash effects" and "polarization effects" to illustrate the spatial consequences of unbalanced growth generated by free trade in asymmetrically structured relationships. In contrast to "backwash effects", there are also "spread effects" or "trickling-down effects" of expansion from core areas to peripheral areas. As G. Myrdal stresses, though, the outcome is spatially unbalanced growth—a process of structural enrichment (in cores) and structural impoverishment (in peripheries)—if market forces alone are left to decide the allocation of resources. Hence, the role of the State—particularly in peripheral economies—is cru-

cial in offsetting trends towards disequilibrium and creating the basis for a viable economy.

#### 4. *The dependency approach*

The core-periphery conceptualization used by the structuralist theorists expresses an unequal relationship between different economies: the core countries benefit from international trade, whereas the peripheries suffer, and thus the world economy is characterized by uneven development. The dependency school, on the other hand, has gone one step further—a step already indicated by G. Myrdal—by arguing that the concepts of core and periphery involve more than a simple idea of initial differentiation and the consequent external constraints; it is maintained that they gradually took shape due to the same historical process of expansion via the “backwash effects” of the core economies. Hence, the problems of peripheral economies are interpreted not as features of the development process of late industrializers conditioned by an advanced external environment, but as the consequence of integration into an unequal international division of labour, which has been dominated by the capitalistic core economies. The unity of the international economic system is thus stressed.

The core is viewed as capable of self-expansive development and as the main beneficiary of the global interactions. On the other hand, the periphery is seen as having a reflex type of development: one which is both constrained by its incorporation into the global system and which results from its adaptation to the requirements of the expansion of the core. The core has specialized in advanced manufacturing supported by the peripheral areas, which are providing the necessary primary goods as well as auxiliary markets. The core accumulates capital at the expense of the periphery. The world system is considered as interdependent, but with a specific asymmetry in which different units perform different functions with different socio-economic consequences.

The history of the periphery is an integral part of the history of the core, both of them reflecting different aspects of the same universal process. Hence, structural features in the periphery cannot be considered as an original

condition in an evolutionary process, but must be considered as a created condition influenced, in particular, by external factors. The central argument of the dependency school has been that dependence—manifested in the unequal international division of labour and in the distorted internal production structure—generates underdevelopment in the periphery.

Criticism of the dependency approach has to a large extent been focused on its overemphasis on external factors as well as on its use as a “theory of underdevelopment”. Particularly in the earlier writings of A. Frank (1967, 1969), the notions of external conditions mechanically determining internal ones and development being incompatible with dependence were explicitly proposed. Nevertheless, most authors of the dependency school emphasize the interactions between external and internal factors, although the former are considered to be dominant. Analogously, the possibility of capitalist development and industrial growth in the periphery is acknowledged by most “dependen-tistas”, but its specific structural features are stressed. These elements are expressed in the well-known formal definition of dependence made by Theotonio Dos Santos (1977). The key element of his concept of dependence is the lack of opportunities for autonomous and self-reliant development in a peripheral economy. He has also, however, emphasized the interaction between external and internal factors by saying that the accumulation process of dependent countries is conditioned by the position they occupy in the world economy but determined by their own laws of internal development. The result will, nevertheless, be a dependent economy, unable to break the chains binding it to the metropolitan cores and achieve its full development.

A similar type of definition of dependence has been made by F. H. Cardoso (1973) and Faletto (1974), who refer to the lack of internal capacity to generate new technology, to launch new products, to produce capital goods and to create markets. However, the economic and social structures are changing in the periphery. Rapid economic growth could even take place together with industrialization, though generated by external forces. In this context Cardoso makes an important distinction between depen-

dependency in enclave situations and dependency where the production system is nationally controlled. In the former, foreign capital dominates the economy, which, by its functions, is directly related to global capital accumulation. In the latter, however, since natural resources and production activities are controlled locally, the accumulation of capital is internally initiated, though requiring international markets for its realization. The system is not self-expansive nor self-reliant, and its dynamics are externally determined. Cardoso calls this "dependent development".

According to the dependency approach, in order to build up a viable self-reliant economy in the periphery, a necessary condition is the generation of a comprehensive industrialization process. But this process cannot be expected to take place spontaneously, for it would be inhibited by the existing international division of labour, which tends to petrify the differences between core and peripheral economies. Within this division of labour, the core economies may constitute a veritable "engine of growth" for the periphery, but in the latter the expansion of the world economy will lead to a lopsided pattern of development. To escape from this dependence, a selective dissociation of the peripheral economies from the world market is necessary (Senghaas, 1978; Díaz-Alejandro, 1978; Galtung and others, 1980).

Nevertheless, in several "dependent economies" it has been the development of export sectors that are resource-based or intensive in unskilled labour that has laid the groundwork for the structural transformation of industry. The question, therefore, is not whether exports of primary products or simple manufactures in themselves lead to unfavourable external interactions, but rather whether the countries become trapped in the role of exporter of primary or semi-processed goods in the international division of labour, or else are able to progress from there to build up a viable economic structure.

The ability to respond successfully to the competition of already industrialized core economies and to build up a developed industrial structure is, naturally, a result of the complex interaction of a number of factors. The wealth of a country's factor endowment, its communications network, its chances of domestic capital

accumulation instead of direct foreign control of production, the capability to accelerate the domestic acquisition of technological capacities, the national generation of linkages and external economies, and, last but not least, government policy are all decisive factors in paving the way for successful industrialization and for restructuring the pattern of the international division of labour. The role of State intervention is particularly important both in the formulation of economic policies oriented towards these ends and as a direct productive agent.

Altogether, the dependency approach stresses that the nature of the industrialization process and the consequent pattern of international specialization is determined not by static comparative advantages, but by dynamic ones. It thus seeks to incorporate into the analysis the overall socio-economic environment, including asymmetrical relationships and the unequal distribution of gains from trade, which lead to pressures for change.

##### *5. A global system: core, periphery and semi-periphery*

The core-periphery metaphor has been applied by both structuralists and dependency theorists when describing development disparities in the world economy. This pair of opposites is not defined by geographical or geometrical distances or by specific internal properties alone, but by the nature of the interaction between these two poles. There is a distinct differentiation between the functions of the two poles in the context of the world economy, which is primarily manifested in the vertical international division of labour. Integration is vertical when it takes place across a gap in processing levels, and the consequence of this is that a high level of processing generates economic linkages and external economies (i.e., integrated industrial structures) for the core areas, while denying them in the peripheral economies.

Underlying this differentiation of functions, there is a basic diversity of structures: in the core the production structure is diversified and homogeneous, whereas in the periphery, in contrast, it is specialized and heterogeneous. Diversity implies an economy with a variety of industrial sectors, and homogeneity means that these sec-

tors have mutual linkages leading to structural cohesiveness. The consumption profiles match the complexity of the production facilities and technology. An advanced form of production has numerous positive secondary effects within the economy.

In the periphery, in contrast, the economy is highly specialized, having unilaterally developed an "enclave" type of export sector with limited internal backward and forward linkage effects, while demand is largely met with imports as it increases and becomes more diversified. On the other hand, the economy is heterogeneous, or fragmented, and characterized by the absence of vertically integrated industrial structures, i.e., the lack of complete production chains. In particular, the production of technology and equipment takes place abroad, and frequently the export products have low value-added contents. This structure is, furthermore, heterogeneous in the sense that economic activities with significant differences in productivity exist side by side, the two extremes being represented by an export sector with high productivity due to imported technology and capital goods, and subsistence agriculture using outdated technologies and thus having a very low level of labour productivity.

Both types of economies —although described as separate poles— are structurally linked so that the system reproduces itself at the global level. This is the starting point of Samir Amin's analysis of the global accumulation of capital, which creates peripheral capitalism with specific structural features. According to Amin (1974, 1976), there are three criteria which define the periphery: unevenness in productivity between sectors, its disjointed economic system, and domination from outside. He has particularly stressed that the presence or the absence of links between different economic sectors explains why some countries are developed and others underdeveloped. The core economies —particularly the small countries among them— are not necessarily economically self-sufficient either, but they are self-reliant, since they have integrated industrial structures. For Amin, the determining interrelation in a self-reliant system is that which links the sector producing mass-consumption goods with the sector producing capital goods. In peripheral economies this link is absent, primarily due to the lack of a capital goods sector.

The role of capital goods production is particularly accentuated in this determination. It is the foundation of the industrial structure and of the international competitiveness of an economy. The capital goods industry is the principal vehicle of technical progress, which in turn has a direct impact on labour productivity and investment. Likewise, it sustains autonomous industrial development, since it generates the equipment necessary to install other sectors of production. As long as capital goods production is lacking in a peripheral economy, the potential dynamism derived from internal economic expansion and investments will pass to the core countries, and the world economy will be characterized by unequal specialization.

Immanuel Wallerstein (1979) has further developed Samir Amin's analysis in his so-called world-system approach (see also Hopkins and Wallerstein, 1980). According to this, on a global scale the process of the division of labour has created an integrated and polarized world economy manifested in core-periphery relations. A world system, according to Wallerstein, "is a unit with a single division of labour comprising multiple cultural systems, multiple political entities and even different modes of surplus appropriation". Wallerstein describes the world system as being capitalistic and argues that once capitalism emerged in the sixteenth century, regional specialization and the worldwide division of labour developed. Before that, the world was made up of a number of relatively independent "mini-systems". As these "external areas" became subjected to the world system's expansion, i.e., were incorporated in the process of the global accumulation of capital (in Amin's terminology), they were "peripheralized" and lost their autonomous development potential.

The particular pattern of integration of production that is frequently noted on a world scale —primary products from the periphery, manufactures from the core— is incidental, not essential, to the concept of a core-periphery division of labour. It is primarily a division among integrated production processes, not among particular products. Typically, the poor internal integration in the peripheral economies is manifested in production that is both externally oriented and highly specialized in semi-processed goods with low skill-intensity.

The world system is in a constant process of change in which its various poles manifest themselves differently. The polarization between the core and periphery does not, however, produce a bi-modal but rather a tri-modal distribution of countries over the core-periphery spectrum.

Thus, in addition to the core and periphery, there is in the middle a structurally distinguishable group of countries which make up the semi-periphery. Accordingly, the following typology may be constructed categorizing countries according to their role in the international division of labour.

|                                      |                     | Horizontal division of labour                |                              |
|--------------------------------------|---------------------|--|------------------------------|
|                                      |                     | homogeneous/<br>integrated                   | heterogeneous/<br>fragmented |
| Vertical<br>division<br>of<br>labour | primary<br>products | subsistence<br>economy<br>'external<br>area' | periphery                    |
|                                      | manu-<br>factures   | core   | semi-<br>periphery           |

The basic difference in development dynamics between core and peripheral and semi-peripheral economies is that the core is viewed as capable of self-generating development responsive to internal needs, while the other two have a reflex type of development with fragmented, specialized production structures. The fourth category, "external area" or "mini-systems", which has not yet been affected by core penetration and thus has a self-contained internal division of labour, does not exist any longer in the world. In the periphery the structure of production is specialized in a double sense: only primary products are exported and the economy is internally poorly integrated. In the semi-periphery, for its part, although some manufactures are exported, the export production is also highly specialized, having only a few linkages within the national economy.

The concept of the semi-periphery does not comprise a stable category of countries, although its international function may have been histori-

cally quite the same. In their role in the global division of labour, the semi-peripheral economies face a dichotomy: they have two different sets of "comparative advantages", one characteristic of the core countries, to whose status they aspire, and one typical of the peripheral economies, whose status they seek to leave behind them. Hence, they exchange different kinds of products with each of these types of countries, importing advanced technology from the core and exporting semi-processed goods back to them, while obtaining raw materials from the periphery and exporting finished manufactures there. In part, the semi-peripheral countries act as a peripheral zone for core areas, but as a core for some peripheral areas.

The international system is frequently described as comprising a three-tier hierarchy in which the intermediate stage has been called "second tier" (F. List), "sub-imperialism" (R.M. Marini), "dependent development" (F.H. Cardoso) or "semi-periphery" (I. Wallerstein). All these international stratification models are empirically rather loose and lack unambiguous operational criteria for identifying the countries belonging to each category. Clear quantitative measures of the cut-off points that demarcate the semi-periphery from the core at one end and the periphery at the other have not yet been established. Some empirical efforts have, however, been made based either on capacity factors (size, industrial development, income level, military strength) or on transaction data (trade flows, diplomatic exchange, military interventions). Whatever criterion of semi-peripherality one is using, the result has been a heterogeneous group of countries.

It is necessary to emphasize that the international economic system should be seen in terms of a pyramidal structure of socio-economic hegemony and dependency—a scale—rather than unique categories of core, periphery and semi-periphery. Hence, the concept of semi-periphery may be used primarily as a tool of analysis, rather than as a detailed categorization of countries belonging to it. Core, periphery and semi-periphery are all concepts in terms of which only relative rather than absolute statements are plausible.

## IV

## Towards the determination of an international division of industrial labour

The relative shares of primary products and manufactured goods in a country's foreign trade have traditionally been used as the main indicator defining its position in the international division of labour. However, a clear demarcation between raw material producers and exporters of manufactures is gradually becoming rarer and rarer in the world economy. Traditional international trade patterns are being replaced by new trends. Developing countries are increasingly processing their raw materials and diversifying their production of substitutes for a wide range of previously imported industrial goods. Thus, the traditional complementary trade is being substituted by more competitive trade relations in which countries exchange manufactures for manufactures. The complementarity in trade relations is, in fact, manifested at a new level. In the world economy a new type of productive specialization has been accentuated, in which a country's relative position is defined in terms of its role in the international division of *industrial* labour.

When comparing industrial structures and the consequent trade patterns within the core-periphery spectrum, there are five distinctive features which characterize the depth and scope of industrialization, and hence each country's external competitive position. These are the degree of *external orientation* and the *diversity* of the industrial structure, the *partner concentration of trade*, and the *skill-intensity* and *value-added level* of industrial production.

Typically, a late-coming, peripheral industrializer is greatly dependent on external relations both in terms of markets and supplies of inputs. Furthermore, the exports are focused on a few industrial products, as well as usually being highly concentrated in terms of partners. These features are interrelated, since the dependence upon external forces is likely to be greater if foreign trade is characterized by high geographic and commodity concentration. A common explanation for these features is the beginner's

initial scarcity of industrial resources and of effective internal demand, as well as the overall competitive weakness of industry *vis-à-vis* the more advanced external industrial and technical environment. These defects create a sort of vicious circle, since the fragmented, enclave-like export production has only a few inter-industrial linkages, and hence the economy does not benefit enough from potential multiplier effects, which instead tend to leak abroad. Domestic demand is supplied by imports on too large a scale, the trade being particularly concentrated with the dominant core economies.

The external orientation, low level of diversity and highly specialized export structure are partly related to the size of the economy. There is an inverse relation between country size and both trade dependence and trade concentration. A relatively small domestic market has made small countries —irrespective of their level of development— dependent on specializing and exporting in order to exploit the benefits from economies of scale. In contrast, the large countries can rely far more on internal markets and volumes of domestic resources in their industrialization process. But these obvious observations do not reveal the possible variety of specialization or the problems of concentration on specific branches.

Different patterns of specialization have different long-run consequences for economic development, and should thus be brought into the analysis. It is not primarily the scope, but the depth of industrialization that matters. Small advanced industrialized countries may well be highly specialized in their export production, but it is typically concentrated on technically advanced, skill-intensive products with a high value-added content. This specialized production is vertically integrated within the national economy, which has strong backward and forward linkages, and it consequently has various multiplicatory impacts on overall economic development. Sectoral specialization may thus

accelerate the process of comprehensive industrialization, provided a vertically integrated industrial structure is created. For example, the strategic role of steel in industrial development is based on this kind of series of linkages: from ore mining through smelting and refining to fabrication of metal products and, finally, capital goods.

The analysis presented above emphasizes the distinction between the division of labour based on sectoral specialization *vis-à-vis* functional specialization. Although the pattern of sectoral specialization is relevant, the spatial differentiation in terms of stages and kinds of production seems to be just as important for the investigation of the present international division of industrial labour, which is based not only on a sectoral geographical division but also on an intra-sectoral division of labour.

The argument might be made that the degree of processing and the skill-intensity of industrial production are more important factors than the relative external orientation or diversity, in determining each country's relative competitive position in world trade. According to these two criteria, the following fourfold typology of manufacturing branches may be constructed:

|                     |                | Human capital intensity  |   |
|---------------------|----------------|--|---|
|                     |                | low skill/<br>standardized   | high skill/<br>innovative                                       |
| Value-added content | Inter-mediate  | leather, wood, textiles non-metallic minerals, pulp, paper, iron and steel   | rubber, chemicals   |
|                     | Final products | furniture, clothing footwear, miscellaneous basic metal, transport equipment | pharmaceuticals, instruments, industrial mach. electrical mach. |

By and large, a country's specific role and position in the international division of industrial labour is determined by its pattern of specialization according to this type of categorization of industries. The industrial dominance and the competitiveness of core economies is based on the acquisition of the most sophisticated knowledge-intensive and technology-deepening industries, i.e., the "early stage" of the product cycle. Apart from requiring high skills, these industries are often relatively labour-intensive as well as having high value-added contents. Moreover, that type of "tailor-made" production is less sensitive to price competition, because the market emphasis is more on product quality and design. The most typical example is capital goods production.

In peripheral economies the dominant industries are mainly in mature, non-science-based sectors benefitting either from local natural resources or cheap labour. There the capacity to innovate and to lead technological development is limited. Design and production methods are standardized and productivity growth is slow. The major form of competition is price competition, depending predominantly on labour costs or natural resource availability.

Semi-peripheral economies are somewhere "in-between". They have striven toward more capital- and skill-intensive industries with a higher processing level than peripheral economies. Still the capital-goods sector, including research and the application of new productive techniques, continues to be dominated by the core economies. The specific competitive characteristics of a national economy are particularly dependent on the existence of indigenous investment goods production, because this determines the depth of the industrialization process in each country. The size of the capital goods sector may thus be considered as one of the major determinants in differentiating core and semi-peripheral economies from each other.

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## Services: a disquieting link between Latin America and the world economy

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In recent years the international dimension of services has come to have a steadily increasing weight in the complicated agenda of international economic negotiations. Owing to the persistence of a number of industrialized countries, the recent ministerial meeting of GATT, held in Punta del Este last September, decided to launch a series of negotiations on international trade in services.

The subject of services has given rise to heated debates and, for many, has become a new and sensitive source of confrontation between the central countries and the developing countries. Since many services permeate almost the entire economic and social structure of a country, the policies adopted on them will have notable effects on the future international division of labour, the place of the peripheral countries in the world economic setting and the actual forms of development to which these countries can aspire in the coming years.

The author examines some of the characteristics of services, especially those related to their internationalization, and points out the special features of services in relation to the merchandise economy, to the impact of new technologies (particularly regarding informatics), and to the role of the transnational corporations in the internationalization of this sector.

He then seeks to clarify the background to the international initiatives on the subject, and concludes with the preliminary identification of some elements that will enable Latin America and the Caribbean to formulate strategies that minimize the risks of these initiatives and make it possible to use the services sector to achieve a more favourable insertion of the region in the world economy.

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## I

### Background

Telecommunications, banking, data processing, cinema and television, insurance, advertising, auditing, education and health services, transport: all these make up a group of economic activities which are not included in the goods-producing sectors and are today the subject of unusual and increasing interest in different centres of the globe. Academics and governments, sociologists, political scientists, international agencies and legislators, executives of large enterprises, together with the specialized press and other media of written communication in different countries, are devoting an increasing amount of time and resources to the study and understanding of the economic, social and political function of this hitherto neglected sector. This growing awareness would appear to be due to the convergence of various factors, all of which seem to be creating international concern about services.

There has been a sudden and perhaps belated perception of the enormous economic, social and technological dimensions attained by the tertiary sector, both in developed and developing economies. Services contribute more than half of the global value-added and employ around 60% of the labour force available in the world. In their turn, prodigious technological advances are revolutionizing a series of "spearhead services" such as the handling and trans-frontier transmission of data, the banking system, insurance, transport and others. These changes occur at a speed which often prevents us from realizing the impact they can make on economic and social development, as well as on the economic and political relations between countries, particularly between developing and industrialized countries.

The contemporary world is experiencing profound frustration and perplexity at the persistence of serious economic and social problems in most of the countries of the world, and especially at the incapacity of the conventional development models to alleviate grave human problems in many parts of the world. The awareness of these facts demands a search for new development options based on a more thorough knowledge of sectors hitherto overlooked, such as services.

There is an intense and still unfinished debate, both in the developed market-economy countries and in the developing countries, on the real role of services in economic and social development. For some, the tertiarization of the economy is a sign of weakness, distortion and low productivity in the economic system, while for others the availability of modern, efficient and inexpensive services in activities such as transport, banking, insurance, informatics and the like is a basic requisite of national development and of a more favourable insertion in the international economy.

It is therefore not surprising that the industrialized countries, headed by the United States, are promoting the adoption of a series of multilateral commitments designed to facilitate the expansion of their service activities through the internationalization of their big enterprises in that sector: an expansion which requires an extensive geographical space cleared of impediments. To achieve this the United States has for several years been pursuing very specific objectives bilaterally (through the Trade and Tariff Law of 1984), regionally (in the framework of its commitments with the other OECD industrialized countries), and multilaterally (in proposing the inclusion of services within the General Agreement on Tariffs and Trade (GATT)).

The perception that services might be one of the key elements in development and international economic relations, together with the realization that there is a growing dependence on the exterior in connection with the provision of "new strategic services", such as those linked with the international information networks, has caused the developing countries to view with increasing and very reasonable apprehension the recent international initiatives regarding services. There is a growing awareness that, behind these initiatives, issues much more complex and profound than mere questions of trade may be at stake. Nor are the developing countries convinced of the advantages they might obtain from the application of the systems proposed: they rather foresee a progressive weakening of their economic importance in the world. Finally, even GATT is not regarded favourably by the developing countries, owing to the long history of frustrations and restrictions that has characterized the relations between industrial-

ized and developing countries within that organization.

On the multilateral level, this position has been reflected in the prolonged resistance of the developing countries to the discussion of services in a forum such as GATT. On the other hand, these countries have shown great interest in enlarging the international debate to include the repercussions of services on their development and to take these effects into account in national and international policies on services. Thus, in March 1985 the UNCTAD Trade and Development Board adopted a programme of work<sup>1</sup> in which new resources were allotted to research on the role of services in trade and development and to the study of international co-operation machinery capable of maximizing that sector's contribution to the benefit of developing countries.

At the regional level efforts are being made, through a joint UNCTAD/ECLAC/UNDP project, to support the Latin American and Caribbean countries in the quest for regional co-operation mechanisms in the services sector, as well as in the preparation of studies that will help to clarify the components of an international co-operation system for services which will fully comply with the interests of these countries.

Similarly, in 1983 the Latin American Council of SELA adopted Decision 153 which, *inter alia*, acknowledges the desire of the countries to present a united front in the international debate on services and to make every effort to improve knowledge of the role played by services in development, as the best means of identifying the real regional interests in this field. These proposals were restated at the Second High-Level Co-ordination Meeting on Services (Brasilia, May 1986), at which several additional aspects of national, regional and international policies on services were defined.

In spite of all the problems involved, at the last ministerial meeting of GATT, held in Punta del Este in September 1986, a solution was reached which to some extent satisfied the interests of the different groups of countries. In effect, the countries agreed to negotiate on the international trade in services, although these

<sup>1</sup>Decision 309 (XXX).

negotiations would be independent of the round of negotiations on the trade in goods which was launched concurrently in Uruguay. Since both negotiations will be carried out under the proce-

dures and practices of GATT (GATT, 1986), we may expect arduous and prolonged negotiations aimed at maintaining an effective separation between the two fields of discussion.

## II

### Some important aspects of the international economy and services

In a previous report (ECLAC, 1984), the ECLAC Secretariat made a preliminary attempt to assess the complex repercussions that might result from certain initiatives of international negotiation on services. There, it was emphasized that a careful distinction should be made between strictly trading aspects and other topics such as that of direct foreign investment, which it seemed arbitrary to consider along with trade in services (since it excluded other international movements of production factors, such as labour) and which went beyond the practical possibilities of action in a forum hitherto conceived as a regulator of international trade in goods and limited to that aspect.

There are two important elements, of relatively recent date, that may help to clarify the analysis: the new Trade and Tariff Act of the United States, and the official presentation of the United States proposal for a new round of trade negotiations in GATT, made in July 1985 to the Group of 18. These have been two of the determining factors in the growing interest in the subject of services. Fortunately these elements, together with other factors, have since that time notably extended and enriched the international debate on the subject both at the political and academic level.

#### 1. *Structure of international trade in services*

##### a) *World production of services and international trade*

Traditionally, development was conceived as a process which, by stages, would gradually lead the countries from agriculture to industrializa-

tion and thence to a post-industrial stage which would be the so-called "service society". This conception prevented academics and planners from assessing, in its full dimension, the real contribution of services to national growth and development.

More recent studies have assigned special importance to the interconnections which appear to exist between certain service activities and the rest of the economic and social structure of the countries. These interconnections would seem to generate externalities of such a size that they would not only make the efficient and low-cost supply of certain services one of the conditioners of the rate of development, but would also be a determining element in shaping the styles and patterns of development desired by the countries.

Empirical observations confirm that services form a group of activities which makes the biggest contribution in terms of value-added in almost all the countries of the world. Towards 1982, the services sector in almost every country contributed more to the gross domestic product than the sum of agriculture, mining and manufacturing. Activities linked with wholesale and retail trade have been the major component of the tertiary sector, but as per capita income increases, the so-called "services to producers" (advertising, management, guidance, financial services, data services and others) tend to acquire much more importance. It is precisely these services that promote the optimum use of factors of production and maximize the efficiency of the production of a society's goods and services, while at the same time generating the greatest externalities through the complex network of

interconnections with which they are linked with the rest of the economy. Various comparative studies confirm the existence of a positive correlation between a country's level of per capita income and the contribution of services to total output and employment. While in the low-income countries services average 48% of the GDP and 18% of employment, in the industrialized countries the corresponding figures are 66% and 67% (Riddle, 1986a). In several European countries "services to producers", as well as some of those included in the category "other services" have registered the highest growth rates in respect of their contribution to the GDP and to job creation. In the United States it is estimated that business services alone contribute more than a quarter of the GDP of that country (UNCTAD, 1986) and that more than 95% of the 25 million jobs created since 1970 were in the services sector. Moreover, it is calculated that since 1945, for each new job in the manufacturing sector, 15 new places were created in services (*Fortune*, 1985).

Since many services are difficult to store and transport, the proportion of services internationally tradeable averages barely 8% of the world output of services, compared with 45% for agriculture and 55% for mining and industry, despite the considerable dimensions of the sector in practically all the economies. It is possible that this low percentage also reflects the imperfections of the traditional systems of registering invisibles in the balance of payments.

In connection with this topic, it should be borne in mind that the question of the international negotiability of services is still the subject of intense argument in different circles, so much so that the definition of a typology of what really constitutes "international trade in services" is one of the main concerns of the present international debate on the subject. Various criteria have been adopted for the design of a typology, although the majority adhere to the criterion of "residence" or "location" or to that of "ownership". The dispute arises precisely because the particular features of many services make it difficult, if not impossible, to apply the same guidelines as those used to define a typology of international trade in goods: i.e., transport of the merchandise in question across national frontiers and ensuing international payments in

respect of this transport. In the case of services, the situation is much less clear; thus, it seems more appropriate to speak of "internationalization of services" than of trade as such. At all events, for the purposes of this article a typology based on the concept of "residence" will be used, in the sense understood by Sampson and Snape (1985).

The first category is the most conventional, since it occurs *without* displacement of the factors of production or of the recipients of the service, that is, without physical proximity between the supplier of the service and the recipient of it. Examples of this category are services involving data transmitted across frontiers, advisory and design services, certain categories of insurance such as life insurance, and some banking and advertising services. This category comes closest to conventional merchandise trade, since the services (incorporated or not in physical goods) cross the frontiers of the exporting and importing countries.

Secondly, transactions may occur as a result of the international movement of one or more production factors. This and the following categories are those that present the greatest difficulties in establishing analogies with trade in goods. The conventional theory of trade assumes the international immovability of production factors such as land, labour and capital. However, the financial flows associated with international movements of factors are becoming increasingly important, as in the case of temporary workers (guest workers) or of capital equipment which enters third countries temporarily through leasing agreements or other forms of special contracts.

A third category involves those transactions stemming from the international displacement of the recipient of the service. The typical example is the tourist who *temporarily* moves to another country, carrying out different transactions which affect the balance of payments both of his own country and of that which he is visiting. A similar situation occurs with those who travel to receive special educational or medical services. It should be borne in mind that some of the services mentioned can also be internationalized in different ways. For example, if the doctors or academics move to other countries, the situation is similar to that described above. On

the other hand, they may be internationalized in conditions similar to the first category if such services can be incorporated into a physical good (video-cassettes with lectures) or can make use of international telecommunication networks (classes given by television and transmitted by satellite).

The last category comprises those cases in which both the factors of production and the recipients of the service shift internationally. In a sense, international transport is a service which is largely supplied and received in geographical areas outside the countries importing and exporting the service.

In all the cases described we have assumed that the international movements that take place, whether relating to services as such, the factors needed to supply them or the recipients of the service, are giving rise to international payments which involve both residents and non-residents of a country.

#### b) *Trade flows in services*

In 1980 the world trade in services amounted to US\$ 436 billion. Between 1970 and 1980 this trade grew at an annual average rate of 18.8%, somewhat less than the rate for goods (20.8%). The developed countries are the main exporters (86.5%) and importers (82.5%) of services, and throughout the 1970s there was a constant rise in the surpluses on their trade in services. For the United States, the surplus of US\$ 6.6 billion on services in 1980 was sufficient to compensate for a quarter of its merchandise trade deficit (US\$ 27.4 billion). The item "other services" has been the main generator of surpluses for the industrialized countries. Despite the great importance of this trade for the United States, the countries of the European Economic Community are in fact the main exporters of services, with close on 50% of world exports.

The surplus on trade in services obtained by the United Kingdom is greater than that of the United States and the persistence of a surplus on services in the EEC external accounts has largely alleviated its now chronic deficits on goods trade. In this connection it should be borne in mind that a large part of the surplus on services trade obtained by the Community is the result of its trade with the United States (Riddle and Springer, 1985).

For their part, the developing countries have only a minority share in the world trade in services (13.5% of exports and 17.5% of imports) and are showing considerable and increasing deficits in this trade, transport being the most important item.

Some developed countries likewise display serious imbalances in their trade in services (for instance, the Federal Republic of Germany, as a result of the deficits on the "travel" account), while some developing countries have major surpluses (for example, Mexico, thanks to tourism) (UNCTAD, 1984).

#### c) *Income from investments in services and their internationalization*

Although the volume of world trade in services is considerable, its economic importance is low compared with the rest of the flows that result from the internationalized services sector. The difficulties in marketing services internationally caused the large service enterprises to develop and perfect new forms of international management and control. This phenomenon, based on the astounding technological advances in information sciences, means that once these enterprises succeed in establishing an international network for data transmission they can greatly expand the frontiers of their markets and internationalize their operations even in countries remote from the parent companies.

This situation has given rise to financial flows which are much more important than those associated with the export and import of services in the strict sense. Although global data on this subject have not been sufficiently worked out, the United States is undoubtedly a case in point. In 1980 that country recorded a surplus on movements stemming from its interests in service companies operating overseas which was of the order of US\$ 31.5 billion. To put it in perspective, this figure was practically five times the surplus for that year on the country's trade in services (US\$ 6.6 billion), while it exceeded by almost US\$ 11 billion the deficit on trade in goods (US\$ 27.4 billion).

For many United States enterprises, the income received from their overseas operations may be vital, and, judging from partial indicators, the importance of these operations as a

source of revenue is rapidly increasing. For instance, it has been calculated that the advertising companies of the United States obtain 37% of their gross income from their overseas operations. The equivalent percentage for audit enterprises is 25% and for advisory and consultancy firms 43% (Aronson and Cowhey, 1984).

If the information for the United States were indicative of more general trends, it would mean that for this country the ratio between sales of services through affiliates and exports of services was almost 3:1 in 1974, and rose to 6:1 in 1977. The comparable ratio for the manufacturing sector is only 3:1. Furthermore, during the 1970s the sectoral composition of United States investment abroad reversed in favour of services, which, after having contributed 18% of the total in 1973, represented 29% in 1979. In the Federal Republic of Germany the share of services rose from 20% (1973) to 25% (1983) and in Japan from 34% in 1974 to 45% in 1983.

Although there is no reliable breakdown of information on the composition of direct foreign investment in services, partial indicators show a high concentration in wholesale and retail trading activities, as well as in banking and insurance. Moreover, as happens with direct foreign investment in general (both as regards movements and stocks), foreign investment in services is concentrated in the industrialized countries (UNCTC, 1985).

d) *Trade in services and the international division of labour*

In the structures of world trade, two large groups of countries can be distinguished in which merchandise trade reflects a particular complementarity. The first is composed of the large industrialized countries, for which trade in intermediate and capital goods provides a surplus on current account, and the second consists of those countries (particularly developing countries) in which these same products produce a deficit on current account.

Besides this, there are countries in which services and other invisibles represent a positive contribution to the current account balance and others in which this contribution is negative. "The former sell their services to the rest of the world to offset their trade deficit, whereas the latter use their trade surpluses to accommodate

their deficits on services" (Brender and Oliveira, 1985).

In these conditions, the industrialized countries would tend to dominate the world output and trade in services while the developing countries would attempt to defend already weak positions in the marketing of a small number of products. The world macroeconomic totals would merely accentuate the factors of inequity in the current international division of labour.

The countries that now dominate the world trade in and supply of the most dynamic services will continue to consolidate a productive structure that will enable them to retain and increase a growing economic advantage. In contrast, the developing countries will find themselves obliged to base their economies on a chronically minority share of world trade: a share founded on the export of goods of low income-elasticity and declining relative prices. Thus, the industrialized countries will strengthen their productive capacity in sectors with high value-added, such as high-technology goods and spearhead services based on information, while shifting to the developing countries activities which pollute the environment or have scant possibility of increasing their aggregate export value.

As has been noted by SELA (1986), the technological innovations developed in the centres give rise to the manufacture of increasingly sophisticated goods, which incorporate a growing quantity of inputs in the form of services, while material inputs are losing weight in the structure of costs. These changes obviously influence the composition and dynamics of international trade, since goods intensive in high technology and information-intensive services are displacing other goods and services.

e) *Latin America and services*

The services sector in Latin America has also achieved appreciable economic, social and technological dimensions. On average, it contributes around 60% of the total value-added of the region and employs at least 46% of its labour force. As impact on employment may be even greater in view of the labour density and the weight of service activities in the extensive informal sector of these economies.

In comparison with the recently industrialized countries, the region has registered a rela-

tively low rate of growth in its service activities, even in those countries which achieved high overall growth rates in recent years. What is more, in these countries activities such as transport and communications, as well as business services, grew much less than in the recently industrialized countries of Southeast Asia. As regards employment, Riddle (1986b) calculates that close on 80% of the labour force displaced from agriculture has been absorbed in services.

The region shares in the world trade in services in similar proportions to its share in the world trade in goods (around 5%). Nevertheless, the trade flows in services showed a constant and increasing imbalance throughout the whole of the 1970s, with this deficit reaching some US\$ 11 billion in 1982. The deficit items of greatest value were "transport" and "other services". Exports of services as a whole represented 21% of exports of goods, while imports came to 30% of total imports: figures which are much higher than the world averages and could be reflecting a services sector relatively unprotected and more open than those of other regions of the world.

Owing to the intense adjustment processes launched by them in recent years, the Latin American economies succeeded in reducing their imbalances on services trade to less than half by 1983, which was largely the result of the reduction of imports of services by almost US\$ 11 billion between 1981 and 1983. To put this in perspective, this meant that while imports of goods fell from US\$ 102 billion in 1981 to some US\$ 60 billion in 1983 (-42%), imports of services dropped from US\$ 32.7 billion in 1981 to US\$ 21.1 billion in 1983 (-35%). The items most affected were transport and insurance, together with travel. Even so, the imbalance on services remained an appreciable element for the countries of the region, representing some US\$ 5 billion in 1983, especially if it is borne in mind that by that year the region had overcome its disequilibria on goods and generated a surplus of over US\$ 30 billion in its merchandise trade (Durán, 1986).

Unfortunately, there are no reliable estimates as to the proportion of the remittances of profits shown in the regional balance of payments that corresponds to the operations of foreign-owned service enterprises. However,

the figures may well be high in view of the share of transnational corporations in the total supply of services such as auditing and advertising, banking and insurance, data processing and hotel management (ECLAC, 1985).

In 1982, remittances of profits amounted to some US\$ 5.8 billion in the region's balance of payments. There are also indicators that around 30% of direct investment by the United States in the region is concentrated in service activities, especially finance and trade. All the foregoing suggests that there will be considerable negative financial flows for the region as a result of the activities of affiliates and subsidiaries of foreign-owned companies that operate in Latin America and the Caribbean (Lahera, 1984).

## 2. *The new technologies and production and trade in services*

In recent years there have been marked changes in the composition and characteristics of the tertiary sector, both as regards its output and its insertion in the world economy. As is pointed out in a recent paper (Sánchez Arnau, 1986), "the introduction of microelectronics and their incorporation into industrial design and production, robotics, new materials, and the automation of the services sector are all elements that enter into any analysis of the present situation in industrialized countries". Unfortunately it often happens that the impact of these factors on the productive structures of our countries, as well as on the international division of labour, is much more rapid than the speed at which we can gain a clear idea of their effects on our economic and social systems.

### a) *The special role of informatics and telematics*

Information is today a fundamental resource for the production of a great variety of goods and services. It may be defined as an inexhaustible resource that merely needs to be updated by the use of relatively scarce inputs. Information generally moves in both directions: from the supplier to the user and from the user to the supplier, the latter flow being usually free of charge to the supplier.

The increasing use of data in connection with economic activities results in major

changes in the quantity, quality and type of services available to the economic system, both on the domestic and on the international plane. The fusion of informatics —collection, processing, storage and distribution of information— with the national and international telecommunication networks enables information to be supplied to an increasing volume of services in a growing number of places. As a result of the concentration of financial and technological resources within certain conglomerates and the increasing extension of on-line data bases, however, information is frequently produced within closed circuits which are only available to a small number of users.

On studying the most dynamic services, a process analogous to that recorded at the beginning of the century in relation to electrification and its impact on basic industry is to be noted.

b) *Increases in the tradeability or negotiability of services*

The introduction and application of new technologies such as informatics has enormous economic implications which have not yet been fully appreciated. They lead to basic changes in the quality, quantity and diversity of the services supplied: through the provision of certain key services they are profoundly affecting international competition in the nations' trade in goods and services; and thanks to the growing information component in many services and the greater ease with which data can be internationally transported, there is a considerable increase in the number of activities that can be included in international trade.

This effect is particularly evident in the internationalization of a series of professional services such as architecture, engineering and management consultancy in which such techniques as CAD (computer aided design) and CAM (computer assisted management) are applied.

The greater geographical coverage, and the technological improvement of the international telecommunication networks, have established a smooth-running system of "expressways" for the trans-frontier supply of a growing variety of services, with an effect similar to that which an improvement in the conventional means of transport has on merchandise trade.

Again, the greater tradeability of certain services, as well as the incorporation of new technologies, also affects the dynamism of certain goods. In goods-producing processes there is a marked increase in the services component which is incorporated in the value-added, information being of increasing importance in this respect. This is particularly true of high-technology goods, which are also characterized by their greater dynamism in international trade.

c) *By affecting comparative advantages, will the new technology mark the end of cheap labour?*

The introduction of new technologies such as informatics and robotics could be having a marked effect on the traditional relations between capital and labour productivity, in respect of both goods and services. Thanks to the employment of these techniques, Japan has made great savings on labour costs in the clothing industry. In the United States, computerized programmes for cutting and design have been invented which enable dress patterns to be copied, automatically adjusted to different sizes and new accessories introduced, while at the same time the use of material inputs is minimized, all of which has a decisive effect on the international competitiveness of these industries.

In transport, containerization and the integration of different types of transport in large-scale operations are displacing the old-style shipping fleets of many developing countries (Modwell, Meheotra, Kumar, 1984).

In the past, cheap labour in developing countries enabled them to some extent to offset the superior productivity of capital and labour in some advanced countries. The technological changes mentioned, however, will enable the latter to recover comparative advantages in traditional sectors which were assumed to be once and for all in the hands of the developing countries.

3. *Transnational corporations and production and trade in services*

A determining factor of the international economy is the growing importance acquired by

transnational corporations in the supply of services. In part, this transnationalization has been the logical continuation of the intense process that took place in the goods-producing enterprises in the 1960s and 1970s. A natural market was created for the transnational corporations beyond their own frontiers, which they could only serve through the establishment of affiliates and branches in other countries. This explains the transnationalization of the great banking, insurance, advertising and auditing conglomerates, as well as a great variety of services which do not readily lend themselves to international trade but which are nevertheless the essential logistic support for the internationalization of the economies of the central countries.

a) *Changes in forms of management and control*

In international trade, the internationalization of a wide variety of service activities complements the great networks of affiliates and subsidiaries or other organizational units, whose international management and control is simplified by such relatively recent administrative practices as licensing, franchising, leasing, etc.

Gibbs (1985) argues that government policies that affect, perhaps unwittingly, the relative profitability of investment in one or another sector, as well as the relative intensity of international competition, may also be explanatory factors of the establishment of new sectors of services and of new forms of entrepreneurial organization.

These factors have not only lengthened the list of services offered but have occasioned a series of mergers between enterprises which would formerly have been inconceivable. Such mergers "diversify risks, help to obtain new technical knowledge and facilitate access to financing" (UNCTAD, 1984).

b) *The special dynamism of the transnational corporations*

The dominant position of the transnational corporations in world trade and supply of services is also indicative of the special dynamism that has characterized these enterprises in recent years. The factors that explain this dynamism include the limited international negotiability of

services and the stimulus offered by foreign markets to the expansion of the volume of these firms' operations. A large part of the capital of the service enterprises consists in the accumulation of technical knowledge, as well as in the prestige of the firm's trademark. The expansion of a firm's territory is therefore vital in order to derive more advantage from economies of scale and to maximize benefits at the world level.

Moreover, as a result of keener competition, various industries—not only in the services sector, but also among producers of goods—, have embarked on a process of integration which gives them a greater power of penetration and expansion of their operations in foreign markets.

One of the outstanding examples is that of the *sogo-shosha* enterprises of Japan. The internationalization of these commercial conglomerates has converted them into organizers and co-ordinators of projects for supplying a multiplicity of support services, which range from the financing and supervision of projects, the acquisition of equipment and the construction of physical infrastructure (for instance, ports and motorways) to the marketing of mining resources and advisory services. They also take part in the building of airports, tourist installations and housing complexes in the developing countries (Koshima and Osawa, 1984).

From the particular viewpoint of Latin America, ECLAC (1986a) points out that: "the region's main negotiating weakness in matters of trade lies precisely in the production of commercial services and their basic complements such as transport, insurance and financing . . . The productive power—i.e., the production, effectiveness and international competitiveness of the activities under discussion— depends to a decisive degree on the scale of the economic units involved. In this field it is necessary to compete with huge transnational corporations capable of exercising oligopolistic influences. For instance, at the beginning of the 1980s the large transnational commercial corporations—generally known as trading companies— controlled over 70% of the total world trade in primary products, amounting to almost a million million dollars at that date . . . Similar observations might be made in the field of finance and transport".

c) *The international information networks: diversification and geographical extension in the supply of services*

In a large number of services —particular in banking, insurance, transport, and some others— the internationalization of production and of the control and management of world activities is being speeded up, perfected and diversified, thanks to the innovations that have taken place in the global telecommunications infrastructure and to the simplicity and speed with which information can be handled across national frontiers through media such as telematics. In the services sector, finance in general and banking in particular are using informatics not only in their management systems, but also in a great variety of new services which are only possible through the progress of the information-electronics complex (ECLAC, 1986b).

Although the cost of setting up an international information network is enormous, the marginal cost associated with the transmission of new information or of information hitherto not channelled through these media is relatively small. Hence, the cost of amplifying and diversifying the number of services offered is negligible when they depend directly on the supply of information.

When a central base of informatics and the interfaces suitable for connecting the corresponding terminals to the public international telecommunications networks and thence to the data bank of the parent company are available, the marginal investment required to amplify the geographical coverage of the operations is relatively very small. The direct investment required for the installation of affiliates and subsidiaries of banks, insurance companies and other service enterprises does not amount to much more than the funds needed for advertising, furnishing of offices and acquisition of terminals: an investment which in some cases is almost entirely covered by local finance.

Arguments analogous to those on the theory of the life cycle of products may be employed to explain the multinationalization of service enterprises as a function of the technological advances through which these enterprises plan to increase their profits in world markets. There is no doubt that the banking system, insurance

companies and the transnational trading corporations have exploited the most advanced management techniques, above all for the handling of information on world market conditions, and that they have also shown a highly innovative approach in many of the services offered. As these processes are relatively easy to imitate, many of these companies are driven to a rapid penetration of new markets, in order to discourage potential competition. The effect of this is precisely to accelerate the process of transnationalization of operations (IRM, 1986).

d) *The need for a free field to maximize benefits*

The great service conglomerates will redouble their efforts to expand to the full a field free of impediments and heterogeneous regulations that hamper their functioning in the market. The high marginal profitability associated with the setting up of branches and affiliates in a predictable and relatively homogeneous setting is a vital necessity for the survival and continued development of these enterprises.

So crucial is this need that one of the most active lobbies in the defence of the interests of the great transnational service corporations (coalitions of service industries), in identifying the main impediments to the expansion of its members' activities, cites the restrictions on the right of enterprises to operate in overseas markets and to receive the same treatment as national enterprises —i.e., the issues of right of establishment and national treatment. It also reports other obstacles such as tariff discrimination, barriers to trans-frontier data flows and the unfair competition that may arise from State monopolies (*Fortune*, 1985).

4. *Outline of a new interpretation of international trade and development*

The failure of the various expressions of the development process in numerous countries, coupled with the sharpening of the economic imbalances between the industrialized and the developing countries, has given rise to increasing doubts about the conventional theories of development and the main factors that affect the international division of labour. This has called into question the traditional development mod-

els and therefore justifies the proposal of new options based on a better knowledge of the role that might be played by economic sectors hitherto neglected, such as services.

It has been suggested that services are not necessarily an almost automatic result of development by stages (from agriculture to manufacturing and thence to services) but, on the contrary, one of the keys to development and to the relative wealth of nations. In that case, far from depriving the goods-producing sectors of vitality and solidity, the supply of dynamic, modern and efficient services would be fundamental for their stimulation. Services would thus be a prior requisite of the development process and not, as had been traditionally believed, one of its results. The close interconnection between various services and the rest of the economy means that the innovations that may be introduced into the key service activities will be rapidly propagated, resulting in lower costs, increased productivity and a greater capacity for international competition in all sectors. The services can generate major external economies and diseconomies, according to the practical means selected by the countries for their supply.

Moreover, since services represent the greater part of the world aggregate product and this proportion is tending to increase, the control of the ownership and management of the value created through the internationalization of this sector has an undoubted impact on economic relations among the countries, as well as on their procurement of surpluses.

It would not be rash to assume that, with the tertiarization of the world economy and trade, there might be a repetition and accentuation of phenomena similar to those that caused the structural deterioration of the developing countries' terms of trade: a deterioration associated with the structure of the periphery's external trade, based on the export of primary products, whose relative prices systematically decline, and on the importation of manufactures and equipment with a high value-added, whose prices are constantly increasing.

As long as the central countries retain a dominant position in the most dynamic service activities in the world economy, they will find it easier to obtain a growing proportion of the world income. This regressive income distribution would operate via trade and the movement of international factors, which favour the profitability of the activities in which the developed countries predominate at the world level.

The internationalization of services would appear to have no limit other than that imposed by the capacity to develop new techniques of control and management. It is conceivable that it would embrace almost all these heterogeneous activities, if the marginal costs of management were less than the new income generated. It would extend not only to banking and other financial and professional services but also to urban transport, wholesale and retail marketing and distribution, and some public utility services (postal services, city cleaning and maintenance, health and education).

### III

## International initiatives on services proposed by the United States

### 1. *The Trade and Tariff Act of 1984*

On 30 October 1984, the new Trade and Tariff Act of the United States came into force. Under its Title III, on international trade and investment, and especially in its section 302, it states the general purposes of the United States

Government in relation to these matters, as follows:

1) To foster the economic growth of, and full employment in, the United States by expanding competitive United States exports through the achievement of commercial opportunities in foreign markets substantially equivalent to those accorded by the United States;

- 2) To improve the ability of the President—
  - A) to identify and to analyse barriers to (and restrictions on) United States trade and investment, and
  - B) to achieve the elimination of such barriers and restrictions;
- 3) To encourage the expansion of international trade in services through the negotiation of agreements (both bilateral and multilateral) which reduce or eliminate barriers to international trade in services, and
- 4) To enhance the free flow of foreign direct investment through the negotiation of agreements (both bilateral and multilateral) which reduce or eliminate the trade-distortive effects of certain investment-related measures.

From the definition of the Act's objectives, three crucial consequences can be deduced: i) the inclusion of a new concept of reciprocity in terms of trade conditions substantially equivalent to those agreed by the United States; ii) the expansion of the powers of retaliation conferred on the President when this reciprocity is not granted and the interests of North American companies in other countries are affected; and iii) equivalence between the barriers against trade in goods and those affecting services and direct foreign investment, with provision for the adoption of cross and interchangeable reprisals in each of these three fields.

Section 104 A establishes the objectives of negotiation on trade in services: i) to reduce or to eliminate barriers to, or other distortions of, international trade in services (particularly United States service sector trade in foreign markets), including barriers that deny national treatment and restrictions on the establishment and operation in such markets; and ii) to develop internationally agreed rules, including dispute settlement procedures, which—

- i) are consistent with the commercial policies of the United States, and
- ii) will reduce or eliminate such barriers or distortions and help ensure open international trade in services.

The Act also authorizes the Executive to engage in negotiations on services, investment and technology which, apart from fulfilling the aims already mentioned, will foster the elimination or reduction of requirements regarding export efficiency; to this end, the United States Trade Representative (USTR) would be autho-

riized to impose restrictions on imports, including the prohibition of products or services subject to these requirements; to maintain and preserve the openness of trade and investment in products of high technology and related services; to eliminate or reduce the distorting effects of measures adopted by foreign governments that affect high-technology trade, and to achieve the reduction or elimination of all tariffs on and barriers to United States exports of high-technology products, together with the adoption of commitments that foster national treatment and provide certain minimum guarantees for the acquisition and enforcement of intellectual property rights.

In pursuance of these objectives, local requirements (for example, on health, security and protection of the environment) will be taken into account.

The Act frequently uses the terms "unreasonable", "unjustifiable" and "discriminatory" to describe the obstacles or distortions mentioned. They are defined as follows: the term "unreasonable" means any act, policy or practice which, while not necessarily in violation of or inconsistent with the international legal rights of the United States, is otherwise deemed to be unfair and inequitable, including any act which denies fair and equitable treatment as regards market opportunities, opportunities for the establishment of an enterprise, or adequate protection of intellectual property rights. The term "unjustifiable" means any act which violates the international legal rights of the United States, including any act which denies national or most-favoured-nation treatment, the right of establishment, or protection of intellectual property rights. And lastly, the term "discriminatory" includes any act which denies national or most-favoured-nation treatment to United States goods, services or investment.

Finally, in an unequivocal amplification of the arguments which might be invoked to open the world market for services, and which is of particular interest to developing countries, Title V (sections 501 to 508) of the 1984 Act on the renewal of the Generalized System of Preferences demands that developing countries should assure the United States of their intention to reduce or eliminate barriers to trade in services, as a criterion for the designation of beneficiary

countries, for the regulations regarding eligibility of products, for limitations of preferential treatment and for the termination of tariff exemptions on imports and exports in the application of the system of preferences of that country.

A precedent seems to have been set recently with the adoption of a treaty on free trade between the United States and Israel, in which a prolongation of the benefits of the system of preferences was agreed to in exchange for concessions in respect of services.

## 2. *Proposals for negotiations on services within the framework of GATT*

Under the Trade and Tariff Act of 1984 and its immediate predecessor, the Trade Act of 1974 (especially its amendment of 1979), the Executive of the United States, through the United States Trade Representative, was entrusted with the responsibility of promoting the adoption of a set of multilaterally agreed rules to liberalize trade in services.

Because of their greater geographical and commercial coverage, as well as the legal character of the commitments involved, the most important United States initiatives are those which refer to that country's proposal to extend several of the principles and rules of the General Agreement on Tariffs and Trade (GATT), at present applied almost exclusively to international merchandise trade, to the international trade in services.

The United States proposes a new round of multilateral negotiations which would include, *inter alia*, a contractual undertaking on international trade and foreign investment in services, to be carried forward under the auspices of the GATT Secretariat, with the support of the administrative machinery of that institution (Brock, 1982).

To that end, the United States and other industrialized countries promoted an exchange of information among the Contracting Parties on the main elements resulting from a national examination of the services sector.<sup>2</sup> It must be

<sup>2</sup>Ministerial Decision on Services, adopted by the Contracting Parties of GATT in November 1982; Conclusions agreed by the Contracting Parties on 30 November 1984; and Decision on GATT activities in connection with trade in services, November 1985.

stressed that this exchange only took place among developed countries (GATT, 1985). No developing country has as yet presented a national study or any information on the services sectors in GATT.

According to the United States, this exchange of information and the ensuing discussions would help to give the countries a better understanding of the conceptual and statistical problems, together with the obstacles, definitions and approaches, that affect the services sectors in their respective countries.

Although it is recognized that the sectors to be included form part of the negotiation programme, the United States has expressed its special interest in negotiating activities such as banking, insurance, telecommunications, data processing, sea transport, air transport, construction and engineering.

Although the United States has explicitly declared that the agreement would exclude all movements deriving from the payment of factors of production (remittance of profits and workers' incomes) and would only touch on the commercial aspects of services, the proposals hitherto presented do not at all exclude the possible addition of subjects which fall within the sphere of direct foreign investment and international movements of highly skilled manpower.

In a presentation to the Group of 18 of GATT the United States delegation specified various objectives for a new round of trade negotiations that would include services. The general aim would be to establish a legal framework of rules and procedures that would help to achieve a trade in services as open as possible, through greater transparency in practices and the solution of problems through consultations, and to negotiate commitments of a sectoral or functional character relating to specific problems of private service industries.

The legal framework that the United States is seeking to promote, for its part, would contain the following elements: transparency; the principle of national treatment; establishment of open regulatory procedures; agreement on public monopolies; procedures for the settling of disputes, and the principle of access to markets.

Regarding the reduction of trade barriers, the United States delegation proposed that procedures should be established for both sec-

toral and functional negotiations. For the sectoral negotiations it envisaged a set of agreements on the particular problems affecting trade in specific services. In this connection, it suggested that priority should be given to reaching an agreement on international flows of information, because of its enormous impact on almost all the services. For the functional negotiations, it proposed to apply the basic concepts and principles used in the different codes on non-tariff barriers that arose from the Tokyo round of negotiations, expressly mentioning the codes on technical norms and government purchases. At the same time, it proposed to make use of the elements of the future agreement on intellectual property that could be applied to services.

Finally, in relation to investment, the United States delegation pointed out that a number of service enterprises were facing serious problems in carrying on their operations overseas because they could not attain ownership of the goods needed for the local production of services. In order to improve the commercial possibilities of those enterprises, it proposed the adoption of conditions similar to those suggested for the trade in services, and urged the Contracting Parties to initiate examination of the investment problems linked with services. At all events, the delegation insisted that any agreement on international trade in services should also include those activities that facilitated the right to the commercial presence of foreign service enterprises, in order to commercialize and facilitate the importation of a particular service into the country in question.

Other developed countries have expressed their intention of adhering to these initiatives and have presented similar proposals for the setting up of a legal framework for international trade in services within GATT. It is possible, however, that the European Economic Com-

munity will have certain reservations over the concrete proposals for the negotiations. It must not be forgotten that the predominance of the Community's exports of services rests on the present arrangements for this trade. There seems no reason to assume that a change in the rules of a multilateral nature will necessarily permit the Community to maintain this predominance.

Nevertheless, during the last ministerial meeting of GATT approval was given for the launching of a new round of multilateral negotiations, known as the Uruguay Round (Punta del Este, September 1986), and in the same ministerial declaration it was also agreed to start negotiations on trade in services.

According to the ministerial declaration, the aim of the negotiations will be to establish a multilateral framework of principles and rules for trade in services, including the formulation of possible regulations for individual sectors, with a view to the expansion of such trade under conditions of transparency and progressive liberalization (GATT, 1986).

Since the references to trade in services appear in Part II of the Declaration of Punta del Este, the negotiations on services might be expected to be independent of the negotiations on goods. This also suggests that some sort of consideration may have been given to some of the main concerns of the developing countries, i.e., the separation of negotiations on goods from those on services. Nevertheless, it still remains to be seen what specific form the negotiations will take and whether this separation will be actually observed in practice. Perhaps it is more important to see if it will really be possible to develop genuinely new principles and conceptual and methodological approaches that will be more in keeping with the very special character of the service economy.

## IV

### Latin American interests and the United States initiatives regarding services

The developing countries have viewed with understandable concern the possibility that the international debate on services will follow the lines proposed by the United States. Brazil, Argentina, India and other countries of the developing world have tenaciously opposed the idea of applying to services the same conceptual and institutional system that has so far been used for the management of the multilateral aspects of trade in goods.

Various arguments have been put forward in support of this rejection. For many, these initiatives would involve the real possibility of re-introducing practices of expansionism and economic domination, under conditions similar to those that existed during the era of European colonialism. A strategic component of that colonialism was the development and subsequent control of decisive services, both in the colonies and in the young nations of Latin America. That control was centered on such services as railways, telephones and telegraphs, wholesale trade and storage and some basic services, especially gas and electricity.

#### *1. The proposal before GATT: extrapolation of the Agreement on Tariffs and Trade into the multilateral context*

It is clear that both the structuring and the conceptual basis of the United States proposal on the incorporation of services into GATT closely follow the form and content of these elements in the United States Trade and Tariff Act of 1984.

This Act not only defines the general principles that should govern the internationalization of services (right of establishment, national treatment and application of most-favoured-nation treatment) but also establishes a definite link between services, investment and high technology, specifically advocating the total liberalization of trans-frontier data flows and the raising of restrictions on the geographical location of data banks.

Should the United States efforts to establish these national principles within GATT be successful, they would change many of the barriers to the internationalization of services that the United States Act currently defines as "unreasonable" into "unjustifiable" obstacles, i.e., measures which violate the multilateral rights acquired by that country, so that its financial and commercial reprisals would have total legal backing in the eyes of the international community that had signed those agreements.

#### *2. Repercussions of a possible commitment within the framework of GATT*

The inclusion of services in GATT, on the terms proposed by the United States and as a function of the legal and contractual nature of that Agreement, would imply acceptance of the proposal that the same principles that apply to international merchandise trade should be valid for the internationalization of services. Not only is the conceptual soundness of these proposals open to question, but it is also clear that their application would expose countries to a series of retaliations affecting their exports of goods, in reaction to rules or practices which violated some of those principles (such as the right of establishment) or which appeared to constitute restrictions on data flows.

As examples of such potential retaliation, mention may be made of that experienced by Brazil, for its policy on informatics, and by South Korea, for its practices in the insurance field. After such reactions it is logical to wonder whether within the GATT system cases will arise in which those Contracting Parties that refuse to grant national treatment to foreign banks will run the risk of facing reprisals such as the withdrawal of tariff concessions on bananas or orange juice (Gibbs, 1985).

### 3. *Deregulation at the national and international levels*

The new Trade and Tariff Act of the United States is in line with the policy of restoring the importance of the free play of market forces and reducing regulations of all types that are considered detrimental to greater dynamism and competition in economic activities. There are numerous service industries in the United States economy in which a process of deregulation has been introduced that involves, *inter alia*, the suppression of controls on prices, exchange rates and wages, as well as of numerous controls and regulations in sectors as important as energy, transport, telecommunications and financial services.

On 1 January 1985, the regulatory body for air transport (the Civil Aeronautics Board) disappeared after having existed since 1938. The year 1980 witnessed the elimination of restrictions on freightage and the ending of the practice of setting concerted tariffs in land transport. In 1982 the Federal Communications Commission came to an agreement with American Telephone and Telegraph (ATT) to divide the latter's monopoly into seven large regional telephone companies and to eliminate exclusivities in the supply of equipment and in international telecommunications and data transmission services. Finally, in 1980, a law on the deregulation of financial services eliminated ceilings on savings interest, as well as restrictions on the type of loans that intermediaries could offer. Nevertheless, there still remain important restrictions on the geographical coverage of financial operations inside the United States (Mentré, 1985).

The criterion behind the United States Government proposal presented in GATT seems basically the same as that which has sustained its reforms within its own economy: i.e., to liberate and enlarge the world economic space for the expansion without let or hindrance of the great service enterprises.

Although the information is very partial, the Latin American countries seem in general to have service sectors with little regulation, especially in areas such as informatics, cinema and television, professional services (such as auditing and advertising), and even much more critical fields such as banking. This situation

contrasts with the protectionism and high degree of control to which these activities are subject in the EEC countries and in Japan. This being so, an agreement in GATT on services would in the end go no further than the adoption of a legal standstill or freeze commitment in respect of the existing situation of deregulation: a commitment that the countries of the region would assume without obtaining any concession on the part of the industrialized countries.

On the other hand, the idea that the internationalization of services would be linked with a hypothetical abundance of direct foreign investment would amount to no more than an expression of good intentions. In fact, the right of establishment and national treatment would enable the large transnational corporations to enter new markets with a minimum of new investment: no more than that required to create the conditions for their affiliates and subsidiaries to connect their terminals to the international telecommunication networks. These would link them with the parent company and in this way would ensure that the bulk of the value-added by this activity would be produced in the parent countries of these enterprises.

### 4. *Towards specialization of the developed economies in services and of the developing economies in goods?*

The United States have propounded a hypothetical situation in which the developed countries would move towards the concentration of their foreign trade on the export of services, while the developing countries would specialize in the export of goods. This argument is based on the belief that the development of services would require a higher level of general development, in which case comparative advantages would point to specialization by the countries with the conditions described, to the ensuing benefit of the international community as a whole, which would enjoy a higher standard of well-being.

The same sources that publicize the attractions of this prospect, however, stress that the growth of the service sector would not deprive the manufacturing sector of its vitality, just as the growth of the latter did not undermine the growth of agriculture. To substantiate this, they point out that in the United States between 1910

and 1970, while employment in agriculture fell from 13.6 to 4.5 million, the real agricultural product trebled. And they add that the manufacturing sector on a percentage basis, has shown the same trends (*Fortune*, 1985).

This link between a modern and efficient services sector and the dynamic growth of the primary and secondary sectors has been recognized by various authors, to the point where some speak of the absolute advantages that would arise from a state of higher development: advantages that would be felt in all economic sectors (Nusbaumer, 1984). The volume and dynamism of the agricultural exports of the United States, coupled with the recovery of competitiveness of certain textile industries in the more developed countries, appear to corroborate this view.

Finally, if it is borne in mind that most of the services will continue to be non-tradeable activities in the traditional sense, the internationalization of services would be only a partial and insufficient option for the industrialized economies to retain their leadership. Without similar dynamism in agriculture and manufacturing, the internationalization of services may increase factor income in the balance of payments, but it will not create new sources of employment within the industrialized economies.

#### 5. GATT: beyond services

The sharpening of the international economic crisis, and especially the emergence of high and persistent unemployment rates within the industrialized economies, revealed the fragility

of the international trade institutions that arose after the Second World War.

The principles of non-discrimination and of reduction of obstacles to free trade among countries have been gradually replaced by the so-called managed trade. All kinds of voluntary restrictions on exports, non-tariff barriers of every type, campaigns and pressures to affect national consumption habits, subsidy policies and other unfair practices that affect trading opportunities, have been creating a parallel system of international trade in which the function of GATT as an agreement regulating multilateral trade has been increasingly eroded.

All these practices have had a more marked influence on the developing countries, especially those of Latin America. Because of their weak negotiating position and limited economic power, they have suffered the full force of the obligatory nature of the commitments undertaken in the Agreement; at the same time, there has been a systematic avoidance of discussion on how to solve the problems that most affect them, such as trade in agricultural products, textiles and other goods in which the arbitrary use of unfair practices by the developed countries contravenes various principles of GATT.

With such a background, it is not surprising that the Latin American countries regard with mistrust the use of this forum to discuss activities which for them are in their infancy. Considering the unreliability of the promise of greater access for their merchandise exports, what can Latin America expect in exchange for concessions that facilitate the internationalization of the service enterprises of the industrialized countries?

## V

### Policy inferences

Apart from limited initiatives in respect of some particular services, especially transport and certain financial services, this sector has not claimed much attention either in theory or in practice in national economic policy. The convergence of a series of factors is rapidly changing this situation, however, above all in the industrialized countries.

#### 1. *The need for better knowledge of the role and potential of services in the economies of the region*

There is an undoubted need to analyse in depth the contribution of the different services to economic growth and development. In contrast with other economic phenomena, little inspira-

tion can be gained from the experience of the industrialized countries, since there too the subject is still not fully understood.

To a large extent the exercise in question will entail the development of special methodologies and approaches in order to determine which services are vital for achieving socioeconomic goals and what forms of organization, ownership and management should be adopted in the provision of these services.

To this end, it could be very useful to develop the interconnections approach, as suggested by UNCTAD (1986), and also to go deeper into the study of the historical and economic causes that have shaped the present structure of the national supply of services in the region. The research itself could be greatly assisted by a better identification of the main conflicts and contradictions created by the participation of foreign capital and technology in the management of these activities.

The part played by services in development can only be understood through an investigation of the real role that has been played by foreign trade and investment in the services sector. It will therefore be necessary to clarify whether these variables merely reinforce the bonds of economic and commercial dependence or whether, on the contrary, they facilitate the autonomous and self-sustaining development of the Latin American and Caribbean countries.

*2. Systems of co-operation and integration  
in respect of services at the subregional  
and regional level and in  
South-South relations*

The technological, financial and market requirements for the efficient and dynamic development of many services represent a great obstacle to the establishment of these services in the fragmented national markets of the region. This provides many opportunities for innovative forms of co-operation and integration between two or more countries, according to the characteristics of the activity in question.

It is becoming increasingly evident that economic integration among the countries calls for a process which is broad enough to include various basic services, without which the integration proposals do not appear to be viable. The

expansion to the multinational sphere of services such as transport, insurance, banking and informatics appears to have played a determining role in some successful integration initiatives such as those of the European Economic Community.

The co-operation and integration agreements tried out by the countries of the region at different levels systematically diminished the potential that services could offer, not only as an essential complementary element of co-operation and integration for the production of goods, but also as an aid to exports and to import substitution in relation to the extra-regional markets.

Within the region, as part of the different systems of subregional integration, some attempts at co-operation in services have been made, with apparently very uneven results. For example, the Andean Pact contains proposals and instruments for co-operation in respect of highway transport (Decisions 56 and 57 on transport of goods), sea transport, tourist activities (circulation of motor vehicles, passengers and the Andean peso), professional services (Andrés Bello Agreement and SECAB), public health (Hipólito Unanue Agreement), movements of labour and protection of immigrant workers (Simón Rodríguez Agreement), as well as in relation to the acquisition of technology from outside the region and direct foreign investment in the services sector (Decision 24).

In ALADI, measures have been taken in relation to transport, consultancy services, engineering and financing of reciprocal trade. SIECA (Permanent Secretariat of the General Treaty for Central American Economic Integration) and CARICOM (Caribbean Community) for their part, have had varied experience of co-operation in the services field. Other systems such as LATINEQUIP (capital goods and engineering services), an integration system promoted by Brazil, Argentina and Mexico, aim to increase co-operation between two or more countries according to their needs in more specific sectors.

A systematic analysis of these regional initiatives will be essential in order to define the selection criteria for activities that have been the subject of co-operation and to assess the mechanisms and instruments used, as well as the results obtained.

3. *The role of services in the functioning of the domestic economic system and in the fulfillment of trade and integration goals*

It is increasingly recognized that the contribution of services to development cannot be represented by the mere total value of these activities in the national accounts. The fact that there is a complex network of interconnections between certain services and the rest of the economic system and that these services generate externalities points to the need to devise strategies capable of ranking service activities in terms of their influence on the results obtained by the main activities of the national economy.

On the basis of this ranking, it will be necessary to identify the most appropriate instruments and the most suitable policies for achieving their modernization. The present structure of world trade in services poses the need to raise the contribution of services to the external sector of the economy and to foster the realization of the potential of the Latin American and Caribbean countries in this area of activity, with a view to increasing their share in international trade in services and to reducing dependence on other regions in this field.

The objectives are easy to state but do not seem to be so simple to achieve. Nor should it be forgotten in this connection, that it is essential to have an expeditious and efficient supply, at the lowest possible cost, of a number of services which are vital for world economic development. Many of the countries of the region will have to resort to importing certain services when these cannot be provided with equal efficiency by the national economy. For many Latin American countries it will be necessary to make a difficult decision between the need to improve efficiency and keep themselves technologically up-to-date, and the desirability of strengthening their autonomy and independence as regards their national economic management.

4. *Priority of a system of international co-operation in the field of services that will comply with the interests of Latin America and the Caribbean*

Services have been unjustifiably neglected in national development processes and in interna-

tional trade and economic relations. The growing recognition of the role that they can play in the trade and development of the countries of the region calls for the creation of new forms of support by the international community for the efforts of the Latin American countries to modernize, foster and improve the function of services in development.

Hitherto, international debate has been dominated by initiatives that seem to be divorced from reality and from the interests of the region. A dialogue based on such initiatives cannot prosper, and insistence on proposals so opposed to the interests of the developing countries will merely exasperate the parties and reinforce antagonisms.

The countries of the region need to be able to rely on efficient, modern and low-cost services. The development of these will depend on the formulation and application of national and regional policies that harmonize efforts and maximize results.

The political, economic, socio-cultural and strategic characteristics of many services provide natural conditions for co-operation between neighbouring countries, not only because of their geographical proximity but also on account of their common traits. These possibilities of *rapprochement* abound in the Latin American countries. Moreover, the physical and economic needs of many services require larger demographic and economic areas than those possessed by the individual countries of the region. The regional and subregional spheres of Latin America and the Caribbean offer effective potential for the extensive development of services, and this should be the subject of urgent and thorough investigation.

In this respect, there are certain services that particularly lend themselves to regional and sub-regional co-operation and integration. It would be unrealistic to aspire to broad international co-operation except on the basis of practical experience gained within the region itself.

The certainty that the Latin American countries could set up efficient systems of integration of their services would reinforce any original proposals presented in the international forums. Experience of this kind would facilitate a much more precise definition of the complementary role played by international co-operation in the

development and modernization of regional services, and particularly the part to be played by the industrialized countries in this task. Only in this way could a regional counter-proposal be defined which would not only enrich the international debate on services but would set forth the means and instruments for more equitable international co-operation in this field.

As a starting point for the study of a regional counter-proposal, the informatics sector offers good prospects, since it covers all the activities linked with the collection, processing and distribution of information. At the same time, the vital importance of informatics and the speed of its development demand that any regional integration body in this field should have executive as well as co-ordinating power (IRM, 1986). This might require, as has been suggested, the creation of a multinational enterprise owned by the countries of the region that wish to take part in the project.

The crucial importance of information as an input for the most vital services would call for an international agreement conceived on broader terms than those that apply to trade. As in the case of international agreements on pharmaceuticals and chemical products for health, which have been propounded with a broad conception of their social function, information would require the adoption by the international community of an agreement that would recognize the special nature of this resource and the need to take account of a series of national rights and obligations in this field. In these circumstances, it would be difficult to conceive how a system such as GATT, circumscribed by the narrow parameters of a trade agreement, could devise an adequate system of international co-operation regarding a resource of such vast political, economic and social projections.

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# Technology transfer in the mining sector: options for the Latin American Mining Organization (OLAMI)

*Michael Nelson* \*

The mining sector could play a decisive role in increasing the region's exports, the need for which is even more pressing because of the burden of the external debt. In this respect, a very promising development is the establishment of OLAMI, whose main tasks will consist of building up a regional mining information system and promoting the transfer of technology through vertical and horizontal integration and horizontal co-operation in the fields of finance, management, prospection, production and marketing.

In the first sections of the article, the author briefly describes the long process which culminated in the formation of OLAMI and which began with the creation of the Latin American Iron and Steel Institute (ILAFA) in 1959. Since it was set up, OLAMI has devoted itself, in its first stage, to satisfying the needs of small and medium-sized enterprises and public and private organizations concerned with policies, services or material inputs for this type of enterprise.

In the last part of the article, the author puts forward some ideas on the way in which OLAMI could organize its action in the field of technology transfer, including tasks aimed at identifying opportunities in this field, seeking those interested in such opportunities, providing them with knowledge and contacts, and facilitating investment finance. A decisive role should also be played in this process by State development corporations and bilateral and multilateral operational and technical co-operation bodies.

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## I

### Introduction

The Latin American mineral producing countries, like all suppliers of basic commodities in the developing world, find themselves locked into a situation characterized by: i) declining prices in international markets, resulting largely from structural change in demand which offers little prospect of short-term recovery and ii) increasing production costs due to rising finance charges and deteriorating terms of trade in their acquisition of capital goods and production inputs. Faced with this two-way squeeze, what can the sector do, with the aid of macro policy, to use and manage the mineral endowment of Latin America so as to make a more systematic contribution to the socioeconomic development of the region? On the surface the answer may seem obvious —take full advantage of the regional market through vertical integration to achieve greater value-added; integrate vertically and horizontally intra- and extra-regionally to reduce costs through economies of scale, specialization, and transfers of technology to make possible an increase in the international market share and an expansion of the regional market; and integrate regional policies to improve bargaining power in export marketing. A fundamental issue is technology transfer (mobilization of capital, techniques and initiative) to increase the welfare of Latin American societies through exploitation of the region's mineral endowment. This is seen as a more constructive approach to the foreign debt debacle than complex financial manoeuvres to keep up interest payments at the expense of increased indebtedness. The problem is *how* to do it.

In approaching the question of how to reap the development benefits potentially available from mineral resources it is axiomatic that the key lies with those "actors" who make the critical production, marketing and policy decisions related to the mining and metallurgical sector and its interrelationship with industry in general. The challenge is the development of an effective regional organizational vehicle which can systematically promote information exchange and horizontal co-operation (intra- and interregional) within and between three levels of decision-makers:

1) *The operating level*: the entrepreneurial sector (public and private, domestic, and foreign) concerned with production, marketing and provision of inputs or technical and financial services.

2) *The organizational level*: this encompasses the agencies which implement public policies on investment, prices, taxes, subsidies, etc. and provide services (research, training and information) to the minerals sector.

3) *The policy level*. As a response to these needs, the Latin American Mining Organization (OLAMI) was formed in 1984. This paper examines the origins of OLAMI, its mandate for action, and some of the options open to promote technology transfer at the operating level (in the areas of financing, management, exploration, production and marketing) and to orient support for this process at the organizational and policy levels.

## II

### The origins of OLAMI

The first move in the regional organization of the mining and metallurgical sector was the creation of the Latin American Iron and Steel Institute (ILAFA) in 1959, as a result of recommendations made at a meeting of steel industries convened by ECLAC in the previous year. The initiative was taken by the Chilean Steel Institute which invited a small group of industrialists from Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay and Venezuela to approve ILAFA's statutes, work programme and budget. There are currently 157 members, representing the principal steel producers of the region, and 492 associate members from inside and outside the region which are mainly enterprises related to the manufacture of intermediate and final steel goods or the supply of inputs to the industry and engineering, marketing and management services. Attendance at annual meetings in recent years has been in the range of 500-700. Since 1972 the Institute has sponsored three technical congresses annually and published the proceedings. In addition it carries out studies related to markets, prices, management, etc. Publications include an industry directory, a monthly magazine, newsletter, statistics, bibliography, catalogue of information, up-dates on iron and steel projects, an annual review of the steel industry, and several other annual reports.

The initiative to broaden the scope beyond iron and steel to include non-ferrous and non-

metallic minerals and metallurgical activities was taken in March 1981 at a regional seminar in Lima, sponsored by the Peruvian Ministry of Energy and Mines and the Inter-American Development Bank (IDB), on financing and co-operation for Latin American mining development (IDB, 1981). The seminar had an attendance of 140, representing mining and banking interests in 18 Latin American countries, financing institutions in Canada, the Federal Republic of Germany, Japan, France, the United Kingdom and the United States, and three international agencies. In the final session an organizing committee was appointed to propose a structure for a Latin American Mining Institute.<sup>1</sup> In April 1983 the committee submitted its proposals to the Peruvian Ministry of Energy and Mines and the IDB with support of four governments (Chile, Guyana, Peru and Venezuela). The principal objectives were to: promote development of medium and small mining enterprises and co-investment in binational and multinational Latin American mining corporations; support the creation of regional consulting entities in geology and engineering; disseminate information on mineral deposits, market opportunities and technology; facilitate horizontal co-operation between enterprises or

<sup>1</sup>Terrones and others (1983).

public institutions related to the minerals sector; and review the relationship between development in the sector and mining policy and the activities of associated public and private organizations. Full membership was to be granted to Latin American enterprises engaged in the production and marketing of minerals, national geological and financial institutions, and national associations of mineral/metallurgical producers. Associate membership was to be available to professional associations, universities and technical research institutes whose disciplines were related to the sector. The work programme contemplated would require three regional offices—Central America and the Caribbean, northern South America and Patagonia. Specific activities proposed were: development of medium-scale non-ferrous metals in Central America; evaluation of gold-mining potential in Jamaica and Haiti; study of provision of highway and electricity services to gold and silver producers in northeast Colombia; feasibility of small and medium-scale mining in the Venezuelan Andes; expansion of small and medium-scale mining of gold and silver in southern Ecuador; development of river and air access to facilitate exploration of the Guayana Shield (Venezuela, Guyana and Brazil); evaluation of electro-metallurgical industries in Paraguay; development of port facilities to export minerals from the River Plate basin; extension of highways and electrification for development of mining industries in Patagonia; and evaluation of market potential for industrial minerals. Financial backing for the Institute was not forthcoming, and no further move was taken in view of decisions made in other forums on minerals over the period 1982-1984.

In the interim, action was taken in June 1982 at a meeting in Bogotá on horizontal co-operation for development of the mining sector, sponsored by the Colombian Mining Corporation (ECOMINAS) and ECLAC (ECLAC, 1982). This meeting was attended by 31 delegates and 20 observers from 14 Latin American countries, plus observers from Spain, Italy and three international organizations. In the course of discussions 90 proposals were identified either requesting or offering technical co-operation for mineral development. At the end of the meeting a decision was made, building on the recommen-

dations from the 1981 Lima seminar, to establish an advisory committee and an interim co-ordinating secretariat with a view to setting up a Latin American System for horizontal co-operation in mining. This decision was subsequently supported by a meeting of managers of mining enterprises, held in Bogotá in June 1982 (ECOMINAS, 1982).

Members of the advisory committee were to be named by interested governments (six countries subsequently nominated representatives to this committee). ECOMINAS agreed to act as the interim co-ordinating secretariat. The tasks established for the secretariat were: i) to promote implementation of the 90 horizontal co-operation proposals identified at the meeting; ii) to draft a proposal for the establishment of the co-operation system as a formal entity; iii) to identify potential sources of funding to implement horizontal co-operation; iv) to seek the participation of a wider range of countries in horizontal co-operation activities; and v) to disseminate information which would facilitate horizontal co-operation and development of the mining sector of the region.

In January 1983 a further workshop on mining development was held in Quito under the auspices of the Ecuadorian Ministry of Natural Resources and the Spanish Ministry of Industry and Energy, with an attendance of 166 representatives from eight Latin American countries, Spain and six regional and international agencies. During the workshop one session was allocated to discussion of regional co-operation mechanisms. The experience of ILAFA and of the Latin American Energy Organization (OLADE) was reviewed. A draft proposal for a regional system for horizontal co-operation was presented by the co-ordinating secretariat and commented on by a member of the organizing committee of the Latin American Mining Institute (Morcillo, 1983). In closing the session it was proposed that the initiatives for a system and an institute should be merged to form a Latin American Mining Organization (OLAMI). ECOMINAS again accepted responsibility for promoting this proposal and the Spanish Ministry of Industry and Energy agreed to provide technical and financial support. The interim secretariat of OLAMI drafted the statutes and reviewed them with interested parties in the countries of the

region. The culmination of this effort was a meeting in Lima in April 1984 convened, in association with the Peruvian Ministry of Energy and Mines, to consider the draft statutes, and the final statutes were adopted by delegates from 11 countries.<sup>2</sup> The objective established for the Organization was "... to foster co-operation among members to reach progressively more advanced stages of geological, mining and metallurgical development in the Latin American and Caribbean region, and in each of the member countries, and thus to increase their contribution to the [regional] integration process". The functions were to: i) promote the integration and development of mining and metallurgy through bilateral and multilateral activities; ii) foster co-operation between national institutions and with other regional or international agencies; iii) promote research and transfer of knowledge related to the development of mineral resources, through the collection and dissemination of information; iv) promote integration of enterprises engaged in research, prospecting, exploration, mining and metallurgy; v) analyse policies for rational development of the industry; vi) promote development of a regional capital goods industry for the mining sector; vii) strengthen the region's bar-

gaining position with respect to financing and marketing; and viii) improve the quality of the personnel employed in the sector through formal education, training, seminars, etc. (ALADI, 1984).

Three categories of membership were established. Active members are the geological, mining and metallurgical enterprises and other national associations or entities connected with the minerals sector, which are affiliates of the National Co-ordination Units (NCU) of OLAMI. Associate membership is granted to similar enterprises and entities from outside the region on approval of the OLAMI governing council. Supporting members are admitted at the discretion of the respective NCUs provided they "share the goals of the Organization and demonstrate willingness to support its activities". The meeting requested ECOMINAS to continue to act as the interim secretariat for eight months. During this period it was anticipated that the respective NCUs would be created and would ratify the Lima statutes. At the end of that time the First General Meeting of the Organization was to be convened in order to ratify or modify the statutes, elect officers, appoint a general secretary, designate the headquarters, and approve the work programme and budget of the secretariat.

### III

## OLAMI's mandate

In fact, 17 months elapsed prior to the First General Meeting of OLAMI. During that time further activities were undertaken by regional agencies in association with the interim secretariat, which laid the ground for the Organization's future work programme.

In August 1984 the Latin American Integration Association (ALADI) and CONSIDER (Brazil) organized a regional congress on non-ferrous metals in Sao Paulo, attended by representatives

of about 400 mining-sector enterprises, to review options for increasing intra-regional trade and the specific actions required by governments to facilitate the process (ALADI, 1984).

A further workshop was held in Santiago in November 1984, under the sponsorship of ALADI, ECLAC and the European Economic Community (EEC), aimed at identifying areas where action could be taken to initiate a process of intra- and interregional exchange of financial, technical, managerial and information resources in order to generate a more dynamic relationship between the extraction and refining of Latin America's mineral wealth and the contribution of the sector, through trade and industrial devel-

<sup>2</sup> Argentina, Bolivia, Colombia, Chile, Costa Rica, Ecuador, Guatemala, Nicaragua, Panama, Paraguay and Peru. Brazil and Cuba attended as observers.

opment, to the welfare of the region's peoples (ECLAC, ALADI, EEC, 1984).

This workshop highlighted a basic issue—the need to approach the “actors” who make the key production, marketing and policy decisions related to the mining sector and its interrelationships with the industrial sector—and pointed to three avenues for initial action through horizontal co-operation:

—Mobilization of the ideas and interests of the entrepreneurial sector in order to: i) improve efficiency through vertical and horizontal integration; and ii) more effectively represent the sector's needs for public services and policies to government decision-makers.

—Assisting those who guide public policy to formulate and implement policies within the context of dynamic interaction with the entrepreneurial sector, including exploitation of opportunities and the advantages of intra- and interregional integration of policies.

—Development of services for the mining sector—research, training and information—which: i) are more responsive to the demands of those who make decisions on investment, production and marketing; and ii) exploit the economies of scale and specialization available through systematic collection and exchange of information at the regional and interregional levels.

These conclusions formed the basic framework for a subsequent meeting of Latin American mining industry associations (primarily representatives of small and medium-sized enterprises) in Buenos Aires in September 1985, organized by the Argentine Mining Union and the Argentine Secretariat of Mines, with support from ALADI, ECLAC and the EEC (Unión Minera

Argentina, 1985). The conclusions of this meeting were transmitted directly to the First General Meeting of OLAMI, held in Buenos Aires immediately following the meeting of mining associations. In essence, these became the basis for the work programme of the Organization approved by the NCU delegates from 14 Latin American countries (OLAMI, 1985).

The detailed work programme adopted by the OLAMI Management Committee in November 1985 covers the following items: at the national level the UNCs will prepare a report on the mining sector over the period 1980-1985 covering structure of the industry, costs of production, efficiency, output, reserves, labour supply and qualifications and mining policy; on the basis of the above information, collaborate with the secretariat in its activities related to development of a mining information system and promotion of technology transfer through vertical and horizontal integration and horizontal co-operation.

At the regional level the secretariat will: co-ordinate the work of the UNCs in evolving a regional information system, the initial step being the publication of a directory of enterprises (mining, metallurgy and geological and engineering services) and government support agencies in the fields of research, information and training, in all member countries; co-ordinate the work of the UNCs related to vertical integration and horizontal co-operation and promote technology transfer through studies to identify opportunities and the holding of meetings to facilitate exchange of information between relevant enterprises; organize technical seminars and congresses; publish, on a regular basis, a journal and statistical bulletin.

## IV

### The challenge of technology transfer

At its present stage, OLAMI is oriented primarily to serving the interests of small and medium-sized enterprises and government and private entities concerned with policy, services or material inputs for this sub-sector of the mining industry. Significant opportunities are seen for

this sub-sector to make a significant contribution to development in the region. Opportunities for diversification of production into minerals with better market prospects than the nine traditional commodities—copper, iron ore, zinc, bauxite, silver, lead, gold, nickel and tin—which

comprise 95% of the region's mineral exports are generally well suited to this scale of operation. Furthermore, these enterprises face constraints in financing, management, implementing vertical or horizontal integration, and knowledge of production techniques and marketing procedures which do not apply to the transnationals or the giant State corporations. Thus, a primary option to exploit opportunities in the mining sector and its potential contribution to greater value-added through vertical integration appears to lie in the transfer of technology in the fields of financing, management, exploration, production and marketing.

The organizational structure for identifying and facilitating technology transfer has important characteristics. First, it must be a market-driven operation: i.e., it must systematically search for regional or interregional opportunities for viable and profitable technology transfer. This requires market research with a relatively sharp focus. Thus, screening the wide array of mining and metallurgical activities—wide both in terms of their diversity and geographic distribution—may lead initially to the establishment of two or three divisions (e.g., cost-saving through energy conservation in production, diversification into selected minerals, specialization and integration for production and marketing of complex products, or vertical integration in selected metals). Secondly, each division must be in a position to deliver a network of contacts and know-how to potential clients, where a profitable project has been identified. It should: i) know the range of available technologies (or be able to identify them rapidly) and be able to say who is in a position to supply them; ii) be able to

locate both the entrepreneurs who are interested in potentially profitable projects identified through market research, or in searching for such projects, and the managerial resources to implement them; and iii) have access to the sources of venture capital to supplement the investment of the entrepreneurs. In this latter area the organization itself may take a short-term equity interest to get the project started. This financing model is followed by the International Finance Corporation worldwide, by ADELA in Latin America, and by venture capital companies in developed countries. An example from Latin America is the Fundación Chile. And thirdly, if the organization is to have credibility and enjoy the confidence of its clients, it must be seen as impartial and professional in its approach. In this area the composition of the board of directors is critical.

OLAMI's mandate in promoting vertical and horizontal integration is very clear. However, the question remains: should it attempt to evolve an organizational structure or establish a subsidiary operation along the lines outlined above, or should it promote the creation of such an organization in which its own role might be minimal? However this question is resolved, there can be little doubt that a systematic effort to support technology transfer to small and medium-sized mining and metallurgical enterprises and those associated through vertical integration, possibly with backing from government development corporations and bilateral or multilateral financing and technical co-operation agencies, should make a significant contribution to the process of efficient industrialization in Latin America.

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# The role of the public sector and transnational corporations in the mining development of Latin America

*Jan Kñakal\**

The world economic crisis, especially the sharp decline in the demand for minerals and metals and the collapse of their real prices (31% in the last five years), together with unprecedented economic stagnation and indebtedness, have eroded the capacity of the governments and public enterprises of the mining countries of Latin America to negotiate with the transnational corporations. These corporations are not only reducing their investments in the region but also trying to evade the effects of the crisis by cutting back the benefits acquired by the mining countries in earlier negotiations. Given the present adverse situation and the danger of an incentives war among governments to attract foreign capital, some thought should be given to the achievements and miscalculations of the public sector and the change which it has undergone in its relations with the transnational corporations in past decades.

The first part of the article assesses the structural changes reflecting the consolidation of the sovereignty of the Latin American countries over their mining resources, particularly in the metallurgical phase. This is followed by a discussion of the problems connected with the role of the State and the public enterprise in the development of the mining and metallurgical industries, with emphasis on mutual links within the framework of social and business interests, of the administrative capacity of the public sector to negotiate with transnational corporations, and of certain internal problems of the public enterprise. Lastly, an attempt is made to provide an illustration of the divergent interests of the transnational corporation and the public sector of the mining countries of the periphery in the main areas of their interaction and co-operation, together with options and modalities for solving the problem, with emphasis on the possibilities of understanding between the parties.

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## I

### Mining resources and the relocation of minerals processing<sup>1</sup>

Analysis of the main structural changes in the world mining and metallurgical industry in the past decade leads to the conclusion that the mining countries of Latin America and other developing regions achieved a greater degree of sovereignty over their mining resources through the nationalization of local subsidiaries of transnational corporations and the establishment of public enterprises, which for some minerals now account for important shares not only of mining production but of metallurgical production as well. For example, the nine main copper-producing transnational corporations, which in 1960 controlled 60% of total world production saw their production decline between 1960 and 1981 (from 2.4 to 1.7 million tons) and their world share fell to only 23% (table 1). This decline was due primarily to nationalization in Zaire (Union Minière, 1967), Zambia (Roan AMC, 1970) and Chile (Kennecott and Anaconda, 1971). In the second half of the 1970s the public enterprises of these three countries accounted for almost a third of world production (McKern, 1983). The public enterprises of developing countries also have an important role in other minerals, such as tin and bauxite (Bolivia, Jamaica and Guyana).

The experience of Latin America and other peripheral countries seems also to indicate that their increased sovereignty over mining resources is associated with a tendency for them to abandon their traditional role as producers of minerals for exclusive processing and consump-

<sup>1</sup>This article is an updated summary of the study submitted by the author to the Workshop on Technical and Economic Cooperation for the Mining and Metallurgical Sector of Latin America and the Caribbean organized by ECLAC and the Latin American Integration Association under the auspices of the Commission of the European Communities (Santiago, Chile, 19 to 23 November 1984) (Kñakal, 1984). The empirical basis for this study is provided by the case studies on Chile (Herrera and Vignolo, 1981), Bolivia (Kñakal, 1981), Jamaica (Kñakal, 1982) and Mexico (Kñakal, 1984) carried out under ECLAC's interregional project on transnational corporations and Latin America's export commodities.

Table 1

**SHARE OF THE MAIN TRANSNATIONAL  
CORPORATIONS IN WORLD PRODUCTION  
OF COPPER (1960-1981)**

*(Thousands of metric tons)*

| Corporation                            | 1960  | 1970  | 1981  |
|--|-------|-------|-------|
| Kennecott (USA) <sup>a</sup>           | 571   | 519   | 378   |
| Asarco (USA)                           | -     | 72    | 327   |
| Phelps Dodge (USA)                     | 234   | 413   | 287   |
| Newmont (USA)                          | -     | -     | 228   |
| Anglo American (South Africa)          | 392   | 153   | 185   |
| Anaconda (USA) <sup>a</sup>            | 476   | 242   | 135   |
| Inco (Canada)                          | 155   | 177   | 132   |
| Roan Group — AMC (USA) <sup>a</sup>    | 241   | 338   | -     |
| Union Minière (Belgium) <sup>a</sup>   | 331   | -     | -     |
| Total 9 transnational corporations     | 2 400 | 1 914 | 1 672 |
| Share of world production (percentage) | 60    | 34    | 23    |

Source: CTC (1983).

<sup>a</sup>Union Minière was nationalized by the Government of Zaire in 1967, Roan AMC by the Government of Zambia in 1970, and Kennecott and Anaconda by the Government of Chile in 1971.

tion in the industrialized countries. The cases of Chile, Peru, Bolivia, Jamaica and Mexico are typical in their commitment to increase the volume of minerals processing in order to enhance their aggregate value and export earnings and as a means of overcoming the oligopolistic barriers of the world markets. This trend can be seen in the relocation of the processing of solid and non-ferrous minerals from the capitalist centre to the mining countries of the periphery and the socialist countries.

Analysis of the relative positions with respect to mineral production and processing and metal processing and consumption for six important non-ferrous products (copper, tin, bauxite/aluminium, lead, zinc and nickel) shows that between 1970 and 1982 the share of the market-economy industrialized countries in metallurgical production and metals processing fell (table 2). At the same time, with the sole exception of lead, there was an increase in both branches in the share of the periphery and espe-

cially of Latin America. The case of tin is remarkable in that the share of the periphery increased from 60 to 70% of the world total (and Latin America's share from 2 to 13%).

However, except for this case, at the beginning of the 1980s the relocation process was still in its initial stages: while the peripheral countries had a share of between 20 and 45% of the world total in the mining phase, their share in the processing of the five minerals ranged from 11 to 23% (these figures are for lead and copper) and in metals processing the range was only from 5 to 14% (nickel and zinc). The ranges for Latin America were from 8 to 23% in the mining phase (nickel and copper), from 5 to 13% in the metallurgical phase (nickel and copper) and from 2 to 5% in the processing of metals (nickel on the one hand and copper, tin and zinc on the other). The transfer of metallurgical activities and the processing of non-ferrous metals from the capitalist centre also coincided with the strengthening of the positions of the socialist countries, especially in metals processing, in which they recorded larger increases than all the peripheral countries taken together.

Of the metal-consuming countries of Latin America only Brazil and Mexico stand out—relatively industrialized countries with big local markets. Both have large resources of the minerals in question, and also of phosphates in Mexico's case; they began their substitution industrialization by importing minerals (such as bauxite and tin in Brazil and phosphates in Mexico), the local exploration and exploitation of which were undertaken only at a later stage; these countries subsequently became important exporters of metals and manufactured goods.

The structural changes in world mining and metallurgy suggest that, in the light of the sustained progress in the processing of minerals and metals in the centrally planned economies and the relatively recent entry of the peripheral countries in these phases of industrialization, it is not enough to rely on market forces to achieve the relocation of these activities in the peripheral countries. To the contrary, greater importance attaches to the strategies and plans of governments and to institutional policies and instruments in the attainment of these goals. Plans and strategies do not always involve centralized planning and State enterprises, as is

clearly shown by the familiar Japanese industrialization model, in which the spectacular progress achieved is due to fruitful co-operation between the State and the private company.

It would be wrong to assume that this relocation will necessarily work against the interests of

the industrialized countries and their transnational corporations, as can be seen from the far from isolated cases in which these corporations have thought it advantageous and profitable to relocate their processing activities in certain countries of the periphery. It is also clear that the

Table 2

**LATIN AMERICA: CHANGES IN SHARES IN THE PRODUCTION AND RESERVES  
OF THE WORLD MINING AND METALLURGY INDUSTRY IN THE 1970s**  
*(Millions of tons and percentages of the world total)*

| Mineral/metal/region                  | Reserves | Production |      |            |      |                  |      |
|---------------------------------------|----------|------------|------|------------|------|------------------|------|
|                                       |          | Mining     |      | Metallurgy |      | Metal processing |      |
|                                       |          | 1982       | 1970 | 1982       | 1970 | 1982             | 1970 |
| <b>COPPER — World</b>                 | 691.2    | 6.4        | 8.2  | 7.6        | 9.5  | 7.3              | 9.1  |
| Centre                                | 43.0     | 42.5       | 29.6 | 61.6       | 50.1 | 74.5             | 63.9 |
| Periphery                             | 45.0     | 36.0       | 44.8 | 18.6       | 23.2 | 4.0              | 9.3  |
| Latin America                         | 30.0     | 15.5       | 22.7 | 7.6        | 12.6 | 2.5              | 5.0  |
| Socialist countries                   | 12.0     | 20.5       | 25.6 | 19.8       | 26.7 | 21.5             | 27.1 |
| <b>TIN — World</b>                    | 8.0      | 0.2        | 0.2  | 0.2        | 0.2  | 0.2              | 0.2  |
| Centre                                | 7.0      | 6.4        | 9.4  | 24.5       | 14.1 | 71.1             | 61.5 |
| Periphery                             | 68.0     | 78.3       | 75.2 | 60.5       | 69.9 | 8.0              | 11.0 |
| Latin America                         | 15.0     | 16.6       | 16.7 | 2.3        | 12.8 | 2.7              | 5.0  |
| Socialist countries                   | 25.0     | 15.3       | 15.4 | 15.0       | 16.0 | 20.9             | 27.5 |
| <b>BAUXITE/<br/>ALUMINIUM — World</b> | 16 740.0 | 59.5       | 78.2 | 10.3       | 14.0 | 10.0             | 14.3 |
| Centre                                | 24.0     | 28.5       | 37.0 | 72.8       | 61.9 | 73.2             | 65.5 |
| Periphery                             | 70.0     | 53.4       | 43.9 | 5.2        | 13.3 | 5.3              | 9.8  |
| Latin America and<br>Caribbean        | 26.0     | 41.5       | 23.2 | 1.6        | 5.7  | 2.1              | 3.6  |
| Socialist countries                   | 6.0      | 18.1       | 19.1 | 22.0       | 24.8 | 21.5             | 24.7 |
| <b>LEAD — World</b>                   | 127.6    | 3.4        | 3.6  | 4.0        | 5.3  | 3.9              | 5.3  |
| Centre                                | 61.0     | 50.9       | 49.2 | 62.2       | 61.3 | 66.7             | 59.6 |
| Periphery                             | 18.0     | 20.1       | 19.7 | 11.7       | 10.9 | 6.9              | 10.2 |
| Latin America                         | 10.0     | 12.6       | 12.5 | 7.7        | 6.3  | 4.3              | 4.5  |
| Socialist countries                   | 21.0     | 29.0       | 31.1 | 26.1       | 27.8 | 26.4             | 30.2 |
| <b>ZINC — World</b>                   | 172.6    | 5.5        | 6.5  | 5.2        | 6.0  | 5.0              | 6.0  |
| Centre                                | 61.0     | 55.5       | 53.0 | 68.0       | 58.9 | 68.3             | 55.0 |
| Periphery                             | 26.0     | 18.7       | 21.1 | 6.3        | 12.1 | 7.7              | 14.1 |
| Latin America                         | 14.0     | 12.5       | 15.2 | 3.6        | 7.0  | 3.2              | 4.9  |
| Socialist countries                   | 13.0     | 25.8       | 25.9 | 25.7       | 29.0 | 24.0             | 30.9 |
| <b>NICKEL — World</b>                 | 183.7    | 0.7        | 0.6  | 0.6        | 0.6  | 0.6              | 0.6  |
| Centre                                | 24.0     | 52.1       | 34.0 | 69.2       | 50.9 | 76.6             | 63.7 |
| Periphery                             | 62.0     | 30.0       | 34.2 | 6.2        | 14.6 | 1.5              | 5.3  |
| Latin America and<br>Caribbean        | 10.0     | 6.0        | 8.5  | 0.8        | 5.3  | 0.5              | 1.7  |
| Socialist countries                   | 14.0     | 17.9       | 31.8 | 24.6       | 34.5 | 21.9             | 31.0 |

Source: Prepared on the basis of ECLAC (1984).

acceleration and extension of this process would require the more active participation of the State, of the industrialized countries and of international organizations in order to achieve greater balance between the desire for business

profits and the longer-term political objectives. The region's experience with the nationalization of copper in Chile, for example, also indicates both the viability and the pitfalls of this initiative.

## II

### The role of the public mining-metallurgical enterprise

Experience of the public enterprise —MINPECO, CODELCO, COMIBOL, ENAF and FERTIMEX in Peru, Chile, Bolivia and Mexico— is so heterogeneous in terms of achievements and problems that it is difficult to draw any firm conclusion. This applies above all to the question as to whether the public enterprise is intrinsically a positive or negative factor for the optimum development of the mining and metallurgical industry. Among the positive features are the great profitability achieved by CODELCO, which obtained some US\$ 6 600 million for the Chilean State budget during the period of low copper prices (1975-1983); the more profitable prices obtained by MINPECO in comparison with Southern Peru Copper Corporation; the dizzying rate of development of FERTIMEX and its high relative degree of independence in technology and engineering; and, in general terms, the increase in the drawback value of exports achieved through the processing and marketing of the minerals and the increased use of local inputs. On the negative side there are the high and uncompetitive production costs, in the MINEROPERU and ENAF foundries for example, or in FERTIMEX's industrial processing of phosphates; the general failure to explore mineral reserves, introduce new technologies and commission productive capacity, and the maintenance of the existing capacity, which aggravates these problems, in COMIBOL and ENAF in Bolivia.

#### 1. *Origin and characteristics*

The active role of the State in economic development and its entrepreneurial function have a long history and a relatively broad scope in Latin America. The involvement of the State in indus-

trial activities originated in substitution industrialization. In Chile, for example, the Corporación de Fomento de la Producción (CORFO) was established by the State in 1939 and its financing requirements led to increases in the taxation of the transnational corporations operating in the copper industry.

Despite the regional and sectoral fragmentation of public enterprises in Latin America, they are similar in their characteristics and functions, depending on the various stages of development, the patterns adopted, and the prevailing ideologies and policies of the governments. The fundamental factor which distinguishes the various positions and interpretations is the definition of the role and the advantages attributed to the free play of market forces and their automatic reactions to the active intervention of the State in the economy; the extreme examples are those of the centrally planned economies of the socialist countries (only Cuba in the region) and of the neoliberal school of Chicago (introduced in Chile in the 1970s, for example). Since mixed economies with different degrees of coexistence between the public and private sectors predominate in Latin America in both historical and geographical terms, we will now discuss this general framework, without losing sight of the heterogeneity of national situations.<sup>2</sup>

The question here is the particular nature of the public sector in the mining and metallurgical industry, for this clearly influences the development of its capacity and profits. The actions of

<sup>2</sup>Bajraj and others (1983) distinguish in the mixed economies the market "reformed" through the execution of projects and programmes and the market "guided" by the deliberate and systematic intervention of the State in the economy and society.

the public sector in Latin American mining are based on the concept, which enjoys broad national consensus (also called "nationalist"), of the need to exercise sovereignty over mining resources and increase the economic and social benefits to the country through the nationalization of foreign corporations. This Statist solution seems to have pragmatic origins in the lack of private capital in the big concentrations required or in the refusal of the private sector to assume the risks involved (the obvious exceptions are the Chilean nationalization of copper in accordance with the socialist ideology of the Government of Popular Unity, even though it was supported by the opposition; and where private national capital is concerned, the triple joint enterprises of Brazil). In the relatively highly industrialized countries with large local markets such as Brazil and Mexico, public enterprises were established in mining and processing to undertake new projects requiring large investments (filling the gaps) without involvement of private capital, as was the case in substitution industrialization in general, while in Chile, Peru, Bolivia and Jamaica they were established, with or without association of the transnational corporation, on the basis of nationalized foreign companies. This difference of origin can have both positive and negative effects on the subsequent development of the public enterprise.

It is also considered that the public enterprise in the mining and metallurgical industry has a strategic value for the country's development, not only through its local effects (employment, inputs, technology, infrastructure, government budget) but also and primarily because of its importance for the incorporation of the country in the international market, as a tool for the acquisition of foreign exchange and increased earnings from processing and marketing, and in negotiation, confrontation and cooperation with the transnational corporations and other foreign agents (including their counterparts in other countries and international groupings). This external projection may be of less importance in public enterprises oriented primarily towards the local market (as in the distribution of phosphate fertilizers by FERTIMEX). Moreover, the strategic nature of the public mining enterprise seems to endure

through all political and economic vicissitudes. From the political standpoint for example, it has survived the operation of the law of the pendulum, reflected in many countries of the region in the succession of governments (both elected and self-appointed) with opposite ideologies and political programmes. This is confirmed by the example of the public mining enterprises in Bolivia, Chile, Peru and Jamaica. This situation has not arisen in Mexico owing to that country's exceptional political continuity.

This survival capacity can also be seen with respect to the notorious instability of the external commodity markets which in extreme situations, such as the present world economic crisis, often leads to the collapse of private companies which have neither the financial capacity or the diversification of activities needed to stay afloat (which the transnational corporations do have). This degree of business security, connected with the broad national political consensus, influences the performance of the public enterprise.

## *2. Administrative capacity to negotiate with transnational corporations*

The experience of negotiation with transnational corporations confirms the importance of having information, knowledge and experience of the various specific technical aspects of this kind of transaction, as well as of the global, socio-economic and political ones. The process which has taken place can generally be described as one of trial and error. At the outset the representatives of the State relied primarily on the political will of the government (on "nationalistic rhetoric", as the neoliberal critics of the process put it) and they received only limited technical support, mainly from intellectuals and social-science experts. In the 1980s the peripheral State now has specialized departments and public enterprises operating in the industry. Of course there are different kinds of experience, as can be seen from the limited capacity of the Peruvian State to control the complex agreement with the Southern Peru Corporation concerning the Cuajone project, in contrast to the ability and experience of Chile's State organizations and technical personnel acquired during the successive advances of State intervention in the industry.

In its interaction with the transnational corporations the public sector exhibits various forms of organization and administrative capacity to perform the tasks of information, negotiation, preparation of agreements and subsequent control. For example, the negotiation may be carried on at the highest level of the government or in special groups, such as the one which prepared the ground for the establishment of the Bauxite Institute in Jamaica, or, especially when the public sector has gained experience, through more hierarchical structures which correspond to the respective departments of the government and the public enterprise. The experience of Peru and Jamaica seems to suggest that the forms of organization may be less important than maintenance of the difficult balance between the various sectoral and private interests of the various units in the public sector involved in the project (mining, metallurgical, economic, foreign trade). This balance can be achieved, at least potentially, if the central economic and planning body conducts the negotiation in an informed and flexible but still authoritative manner.

The standard approach of government analyses (which is to flourish the arguments in support of the proposed solutions) should be supplemented with forecasts and projections drawn up in the light of various circumstances, including ones unfavourable to the project and the proposed decisions. For example, in the Jamaican negotiations in the mid-1970s it was difficult, if not impossible, to assess the effects of the world economic crisis, which subsequently hit the bauxite and aluminium industry. But previous experience, not only of Jamaica itself, could have pointed to the need to consider the possibility of accelerated diversification of their sources of supply by the transnational corporations. Account could also have been taken of the case of OPEC, not only as a model of peripheral solidarity but also in terms of the higher energy costs which it meant for the industry, with the familiar implications for its competitive capacity.

Lastly, it must be remembered that the institutional aspects of negotiating capacity, although important, can be cancelled out by other factors which determine the negotiating strength of the parties. As was pointed out at the beginning of this article, this is particularly likely

to happen in a period of world economic crisis which strengthens the power of the transnationals over the over-supplied markets of the mining countries.

### *3. Links between the State and the public enterprise*

The public sector in the mining and metallurgical industry is usually viewed as an entity forming an integral part of the State organs and departments linked to the industry and with the public enterprises operating in it. However, the Latin American experience indicates that the roots of the problems described and of the low productivity and profitability of the public enterprise lie in the divergence (and the means of overcoming it) between the businessman's eagerness for profits and capital accumulation and the broader interests of the country's society, represented by the State, and of its institutional apparatus and the government in power which directs it. The debate on this dilemma is a very old one and is polarized around ideological approaches not only in the peripheral countries but also in the industrialized countries of the capitalist centre and in the socialist countries. To define the problem better in the framework of the mining and metallurgical industry it is useful to indicate the kinds of interests at stake and the way they have affected the Latin American experience.

The public mining enterprise is a tool of the economic and social policy of the State, and it is possible to distinguish three main functions of the State: optimum utilization of mining resources within the framework of the objectives and goals of the government's programme and plans; redistribution of income between the public mining enterprise and other sectors of the economy and society; and the distribution of income between capital and labour within the State enterprise itself.

The experience of the public enterprises of Bolivia, Jamaica and Mexico seems to indicate that the State's distributive function can be incompatible with the optimum development of the industry, with which the public enterprise, or at least its directors, is fully identified. It is clear that the sales of phosphate fertilizers to farmers by FERMITEX at prices lower than production cost, the use of the public-sector bauxite develop-

ment fund in Jamaica to pay off the government's budget deficit, or the maintenance of disguised unemployment in the inefficient COMIBOL mines in Bolivia undermine the profitability of the public enterprise and in the end lead to its undercapitalization and indebtedness both locally and abroad, obliging the State to bail it out with tax funds and guarantee its loans.

The redistributive functions of the State as regulator of spontaneous market forces in a mixed and underdeveloped economy are essential to the attainment of the economic and social goals set by the government and as a means of coping with the pressures from disfavoured social groups, particularly under a democratic régime. But how is the desired balance between State control and the economic independence of the public enterprise to be achieved? Bajraj and others (1983) suggest, in general terms, the following technical options: i) to determine and quantify the State subsidies for the State enterprise *ex ante* or at least to establish priorities for those which are to be helped; ii) with respect to pressure for jobs, use direct State support in the sector of new owners instead of subsidizing unemployment; and iii) set a limit on the financing which the government may furnish to a public enterprise.

In view of the peculiar nature of the public enterprise in the mining and metallurgical industry, which clearly distinguishes it not only from the traditional public enterprises of the services sector but also from those concerned with the domestic market, it would be useful to explore the possibilities of concrete implementation of the propositions set out above. One possible method, taking advantage of the external links of the State mining and metallurgical enterprise and its competitive and co-operative coexistence with the transnational corporations, would be to rethink the role of the State's existing tools of control (administrative and legal, budgetary and tax) and transform them into contractual and commercial tools. Where possible, consideration should be given to the institutional division of economic from social functions (for example, provisioning and social welfare for the miners, State distribution and marketing of fertilizers).

#### 4. *Internal problems of the State enterprise*

Account will first have to be taken of the national situation, including both the degree of socio-economic and technological development and the time taken to acquire experience and overcome the transitional problems of the big corporations, which have usually been established against the grain of the philosophy and type of administration of the former international owners. Of course, the possibility of obtaining direct or indirect technical and economic support for the State mining enterprise from other social and economic sectors is not the same in Brazil, Mexico or Chile as in Bolivia and Jamaica. For example, in Mexico the public enterprises established in the petroleum and petrochemical industries were of greatest importance for the technological and engineering progress of FERMITEX.

Furthermore, the State's imposition of social functions on public enterprises and the excessive centralism of their control have direct effects not only on profitability and capital accumulation in the public enterprise (helped to greater or lesser extent by State grants) but also, and perhaps more importantly, on the entrepreneurial spirit, for there is a tendency for bureaucratization and lack of responsibility and personal initiative in the management of public enterprises. This situation is often muddled and confused by the system of subsidized costs or costs programmed for certain social functions, which leads to faulty business and administrative management. A clearer distinction between business and social functions would help to solve this kind of problem.

Furthermore, the lack of investment and the heavy debts of the public enterprises, which enjoy State support, lead to an attitude of fatalism or inertia at the top, which can be aggravated by the lack of incentives and opportunities for personal advancement and by the appointment and frequent replacement of management staff for political reasons regardless of professional merit. Greater contractual stability for managers and directors and public control over personnel changes could strengthen loyalty to the enterprise and improve its economic results.

The labour problems and conflicts affecting many public enterprises, and indeed private

ones, are often connected with failures of business management and with the long tradition of struggle for better conditions against the former foreign owners of the enterprise, which often led to the formation in the mining enclaves of a kind of trade-union élite, relatively privileged in comparison with the rest of the country's labour force. Changes of attitude towards the public enterprise require more time and could be facilitated by proper systems of training, promotion and incentives and by degrees of worker participation in the management of the enterprise.

Lastly, the planning and control of the public enterprise by the State should be reflected in a proper planning and information system within the enterprise. This should be used for the State control of the enterprise's activities and also as an effective tool of everyday management; it could also be used for producing an overview of the enterprise's development with respect not only to investment projects but also to the main areas of technological development, training of workers, and marketing and finance.

### III

## The transnational corporation and the government of the mining country: interests, options and criteria

#### 1. *Divergence of goals and main options of interaction*

With regard to the interaction and links between the public sector and the public enterprise, it is obvious that the divergences between their interests are quite different from those between the transnational corporation and the government of the mining country. The public enterprise is part of the economy of the mining country and, in addition, it is owned by the State, whereas the direct foreign investment and its subsidiary enterprise in the country are part of a much wider transnational heritage whose centre of administration and capital (the parent company) is located in the industrial country of the corporation's origin. In the mining and metallurgical industry the desire for profits from the capital invested by the foreign shareholders and financiers means that the transnational corporation must guarantee supplies of the mineral at the lowest possible local costs and within the framework of the maximum profitability of the whole of the corporation's world operations.

In contrast, the global objectives of the government of a mining country are to make optimum use of the local mining resource for the country's development by acquiring foreign exchange and budgetary funds and by integrat-

ing the mining project, through the working of its various links (welfare, employment and local inputs, technological development and industrialization), in the attainment in general terms of greater control (national sovereignty) over the mining and metallurgical industry.

The development experience of Latin America and other regions shows that this divergence of interests between the transnational corporation and the mining State has several implications. The main political options take the form of different models of interaction and relationship between the transnational corporation and the public sector of the mining country. The traditional concession of the mineral resource leads to a pronounced imbalance in favour of the transnational corporation with respect to the distribution of the income from the project and its interaction with the local economy. This model was gradually replaced in the 1970s by the modern or developmental method of concession which is tending to eliminate, in different ways and to different degrees, the former situation of a foreign enclave in the economy of the mining country; this was the case, for example, with the Toquepala and Cuajone agreements in Peru. The nationalization, total or partial, of the subsidiary of the transnational corporation by the government of the mining country has also taken place,

or the transnational corporation itself may have decided to withdraw its investment and sever its connections with the country's mineral resource, with the subsequent establishment of the public enterprise. Joint enterprises involving the public enterprise and the transnational corporation have also been established, together with various kinds of co-operation between the two.

The region's experience seems to confirm that in their application and development these options do not constitute a lineal succession but rather a process of superimposition and combination (for example, in contrast to the Bolivian nationalization of tin in 1952, the establishment of joint enterprises involving the public enterprise CODELCO and the transnational corporations in Chile's nationalization of copper led to the subsequent total nationalization of the subsidiaries in Chile; similarly, the partial nationalization in Jamaica coincided with the establishment of joint enterprises with the transnational corporations and the conclusion of co-operation agreements).

This very variety and combination of the main political options of interaction between the transnational corporation and the mining State seem to demonstrate that the differing interests of the two parties are not necessarily irreconcilable (although they are so, at least temporarily, in the event of nationalization or the unilateral and forced withdrawal of investment), and that solutions can be found provided that both parties find them conducive to their main objectives, i.e., the exploitation and supply of the mineral and the technological and financial input which the transnational corporation offers the mining company.

The divergences of interest and the solution options affect many specific aspects of direct foreign investment and other modalities of participation by the transnational corporation in the mining and metallurgical development of the peripheral country. The list reproduced in the annex is an attempt to summarize and classify the interests, options and criteria of the transnational corporation and the government of the mining country as well as the options open to the institutions and instruments in dealing with certain important problems. This list is not intended to be exhaustive or categorical but rather to serve as a basis for the better under-

standing and discussion of the problems. These problems will now be considered, with special reference to Latin American trends in the modern modalities of concession and co-operation between the transnational corporation and the public sector.

## *2. Financing, ownership and control of the mining project<sup>3</sup>*

In these related fields, which are of great importance for the participation of transnational corporations in the mining projects of the periphery, the adaptability and flexibility of the transnational corporation in pursuing its goal of profit can be seen with greater clarity in the alternative proposals they put forward in response to the requirements and objectives of the governments of the periphery. Firstly, the abandonment of the traditional mode of financing direct foreign investment primarily with the corporation's own resources and loans from the world financial market in favour of diversification of financial sources, with preference given to those with a direct interest in the mining project and including governments and international organizations (as in the Cujajone agreement in Peru), not only reduces the net financial participation and the external risk assumed by these corporations but also enables them to internationalize the investment and their own interests by acting as representative of a group of financiers. This can be seen, first and foremost, in the demand for guarantees of rapid total return on the real value of the investment (including, where appropriate, compensation for the property nationalized by or ceded to the government).

The interests of the peripheral government can coincide with those of the transnational corporation with respect to the guarantees needed for the total financing of the project, but the tendency is for better loan terms and lower costs (interest, commissions, repayment periods), particularly through increased participation by international organizations (such as the World Bank or the Inter-American Development Bank), and for compensation to be paid to the transnational corporation on the book value of the assets, for the return on the direct foreign

<sup>3</sup>See points 2 and 3 in the annexed list.

investment to be officially controlled, etc. If a joint enterprise or joint operations are established with the transnational corporation, the peripheral government has an interest in facilitating its financial participation by furnishing mining land in its ownership and postponing payment of its fees until the joint investment is producing income. Participation in the financing of the mining project by corporations interested in acquiring its future production means that agreements can be made for repayment of the loan from future sales. This method can be particularly beneficial for public enterprises, enabling them to finance the investment and at the same time ensure a future export market (this arrangement appears frequently in agreements with the State enterprises of the socialist countries, but also in the case of Japanese and other companies).

Naturally, the ownership and control of the enterprise administering the mining project is determined by the nature of its original investment financing. The economic and legal basis of the traditional concession, the operation of which was financed exclusively by the transnational corporation, was determined by its ownership and control, also exclusive, of the mining enclave, over which the peripheral State exercised only minimum control and indeed over only marginal matters. Faced with decolonization and the upsurge of economic nationalism in the peripheral countries, the transnational corporations agreed to renegotiate and modernize traditional concessions (with wider redistribution of income and national integration in the project), but they insured themselves against increased economic and political risks by internationalizing the direct foreign investment. Lastly, the frequent instances of nationalization of the subsidiaries of transnational corporations and the establishment of public enterprise led to shared ownership by the parties in the joint enterprise (with the transnational corporation maintaining its control) and to many different forms of co-operation between them (agreements on exploration services, transfer of technology, engineering and training, administration of the enterprise and marketing of its products).

In this process, which was not lineal or perfect in all cases, it is important to emphasize the

question of the effective control of the joint enterprise and of the public enterprise, which contracts for the services of the transnational corporation without this corporation participating in its ownership. In the case of a joint enterprise of transnational corporation and public enterprise, the control exercised by the corporation through management and other service contracts, its right of veto in the governing bodies of the enterprise, etc., safeguard the main objective of the transnational corporation of obtaining the maximum profits from the direct foreign investment through exploitation of the mineral resource and efficient and profitable management of the enterprise. Furthermore, as demonstrated by the joint enterprises of Chile and Jamaica, the other financiers of the direct international foreign investment, especially the banks, make their lending conditional on management by a corporation of recognized international standing.

The interest of the State enterprise of the mining country participating in the production or profits of the joint enterprise coincides with that of the transnational corporation in the sense that its own administrative and technical capacity is insufficient for it to assume managerial responsibilities on an equal footing with its partners. The shortcomings in the management of the peripheral public enterprise discussed in the previous section seem to justify this option for foreign management of the joint enterprise. But the basic problem is different and similar to the problem of the transition from traditional to developmental concessions. The criterion of efficiency and profitability is not applied by assessing and controlling the professional capacities of the directors of the joint enterprise. It is a question of decisions about critical aspects of the enterprise's development, such as its expansion and investment, distribution of profits and local inputs, i.e., mainly problems connected with the divergent interests of the national integration of the mining project and the global strategy of the transnational corporation in its world operations.

Nevertheless, the experience of Chilean nationalization and even of the joint enterprises in Jamaica does not seem to confirm the view of some authors that the effective control of the joint enterprise by the transnational corporation

produces the same situation as in the modern form of concession or even in the traditional one (UNCTC, 1983b)). On the one hand, the process of learning and acquisition of experience by the national directors working in the joint enterprise is much more effective than when they occupy bureaucratic positions of control. This can be of particular importance for a fuller appreciation of the costs and benefits—business and social, present and future—of the enterprise's various projects. On the other hand, the right of veto over the basic decisions of the management of the joint enterprise ought to mean, in theory at least, that the partners seek solutions of mutual advantage and carry them out jointly (as happened, before nationalization, in Chile's joint enterprises through the joint programme for expansion of the industry). Lastly, in the event of irreconcilable divergences of interest between the local and foreign partners, the joint enterprise loses its reason for existence and should be replaced by some other kind of association (or break-up) of the partners.

Contractual relations between the public enterprise and the transnational corporation with no participation by the latter in the ownership of the mining project may also coincide with the interests of the transnational corporation, enabling it to make profitable use of its tangible and non-tangible assets of technology and know-how, marketing channels, processing capacity, etc., without committing its own capital or incurring the corresponding risks (there are also agreements which incorporate the former option, when the transnational corporation does not receive fixed remuneration but guarantees of a share in the yield from the service it has furnished, such as geological prospecting or management and marketing, in the form of a share of the earnings or profits of the public enterprise).

From the standpoint of the peripheral countries, there is no method or mode of relationship with the transnational corporation which can be considered exclusively beneficial for their national development. The success or failure of the choice and its implementation will always depend on the specific conditions in each of the peripheral countries. These include the policy and political will of the government and its ability to transform institutional or formal sovereignty over the mineral resource into effective

and profitable sovereignty. In this connection, the contractual relations of FERMITEX (or of Brazil's public enterprises) with transnational corporations have a basis of support in the country's technological and administrative capacity different than in the case of the public sector of Jamaica or Bolivia. Furthermore, the acknowledged technological capacity and efficiency of CODELCO in Chile could not by themselves prevent a reversal to a fresh transnationalization of mining if the country's economic policy promoted the total privatization of productive industries.

Lastly, even in the relatively less developed countries, the institutional control of the public sector over the mining and metallurgical industry offers greater independence in foreign relations than the unilateral subjugation entailed by the traditional or modern forms of concession. This is confirmed by the experience of Peru, Jamaica and Bolivia in their trade relations with the non-traditional markets of the socialist countries and other Latin American countries and their technological links with the independent companies of the transnational corporations.

### *3. Taxation and redistribution of the earnings and profits of transnational corporations<sup>4</sup>*

The transnational corporation's desire for profit means that it tries to minimize taxation by the peripheral State, especially in view of the economic and political riskiness of the direct foreign investment and the need for the global costs and prices of its final products to be competitive with those of other transnational corporations. This desire prompts demands for low rates of taxation, stipulated exemptions and incentives, guarantees as to the long-term stability of the tax régime, and maximum deductions from the taxable amount in the form of rapid depreciation of the investment in the initial period of its recovery on the ground of exhaustion of the mineral reserves and their "marginal" nature. The marketing of the mineral in the transnational corporation's own system enables it to avoid local taxation in the peripheral country by manipulating transfer prices and thus modifying profit

<sup>4</sup>See point 4 in the annexed list.

rates (as happened in the Toquepala and Cujone concessions in Peru). Lastly, the demand for equal or national treatment of the direct foreign investment implies the right to opt, at the discretion of the transnational corporation, for the tax system of the host country applied to the public enterprise and to small and medium-sized mining companies and thus to avoid double taxation (local and in the country of origin).

The general objective of the peripheral mining country is to maximize the drawback value of the exports of the transnational corporation by means of taxation, particularly in countries in which this represents a large part of the government's budgetary income. This general objective combines with other specific objectives to produce *ad hoc* agreements with the transnational corporation with respect to certain incentives and tax advantages. Thus, the goal of attracting direct foreign investment means recognition of the need to concede tax advantages for the initial risky period of recovery of the capital invested; in addition, the governments of the mining countries usually recognize the need to share, by means of tax concessions, the higher costs incurred by the transnational corporation as a result of the increased national integration of the mining project and, in particular, from its expansion through reinvestment and the increased processing of the mineral. The governments share the concern of the transnational corporations to avoid double taxation, as for example in the agreement between the Jamaican Government and United States transnational corporations concerning the form of payment of the production tax.

Abusive manipulation of transfer prices and the enormous profits of the transnational corporations which are repatriated with nothing left in the host country have provoked counter measures. These measures have taken the form of new methods of taxing the earnings and profits of the transnational corporation, such as the production tax in Jamaica linked to the price of the final aluminium product as quoted in the world markets, or the graduated tax on profits over and above the established level introduced in Chile after the establishment of the joint companies and subsequently in Indonesia and Papua New Guinea. With the establishment of joint enterprises the government obtains divi-

dend income, always provided that the joint investment is profitable.

As in the case of the connections between transnational corporations and the public sector of the mining country, it is difficult if not impossible to indicate which of the many forms of taxation and incentive is most effective in increasing the government's budgetary income as well as satisfying its other interests and the industry's development targets. In the majority of cases (not only in Latin America) the new kinds of taxation in the 1970s have produced a considerable increase in government income in comparison with the limited profits obtained under the traditional concession system. This has prompted some critics of the public enterprise (whose benefits are not limited to the book and current yield) to contrast the Statist solution with the more advantageous alternative of the redistribution of the earnings of the transnational corporation through taxation (Walde, 1984). In addition, changes in production costs, especially of energy, and the lack of joint operations with other mineral countries can, especially in a period of crisis, impede the transfer of the cost of the tax to the metal consumers and lead to the gradual separation of transnational corporations from the less competitive mining countries. This happened in the case of the bauxite production tax in Jamaica, and in its renegotiation with the transnational corporations the government tried at least to offset its fiscal effect by offering large incentives for production increases.

#### 4. *Local factors: employment, inputs, infrastructure and environment*<sup>5</sup>

Under the modern concession system the transnational corporations usually recognize and accept the requirements of increased national integration of the mining project through increases in local employment, wages and social benefits, training and promotion of national management staff, use of local inputs and services, establishment of the necessary infrastructure for the operation of the mining project (including the social infrastructure), and protection of the environment in accordance with national or international rules —with the

<sup>5</sup>See points 5, 6 and 10 in the annexed list.

expenditure incurred added to the investment and current costs. Problems and differences can arise, especially in connection with the control of the enterprise and the competitiveness of the local inputs and services.

It is natural that the transnational corporation should undertake the training and further training of national technical and administrative staff, not only to increase their professional capacity but also from a paternalist standpoint, i.e., to ensure their unconditional loyalty to the company's interests. This problem of dual loyalty or transnationalization of local staff can arise with greater force in joint enterprises, in which the public sector may be represented by political appointees, advised by technicians, who also seek to occupy senior professional posts in the joint enterprise. Without undervaluing moral and patriotic motives, it must be recognized that the transnational corporation can offer weighty incentives to win the loyalty of its local employees (relatively high wages, special payments, possibility of transfer to work abroad). In market economies the public enterprise probably has no alternative than to offer its top-level specialists material conditions comparable with those of the world labour market and, in particular, a reliable prospect of a professional career.

With respect to the price and quality of local inputs, in conditions of international competition (expressed for example in the Cujone concession in Peru by a maximum margin of 30% above the CIF price) consideration must be given to the import function of the transnational corporations, which can be offset by plans and agreements for local supply, with the possible technical assistance of the transnational corporation to local companies. Agreements of this kind are of even greater importance in joint enterprises.

##### *5. Downstream operations of the mining project: marketing, processing and transfer of technology*

Under both traditional and modern concessions the transnational corporation retains full control (free disposition) over the marketing of the mining project's output. This enables it to supply its own processing plants (located in its country of origin or in other industrialized coun-

tries) or to sell the output on more profitable terms to other customers. The first goal of supplying its own plants enables the transnational corporation to manipulate transfer prices to its own advantage, especially in the marketing of minerals (including the processing margin) for which there are no quotations in the world markets. The undervaluing of the prices of the minerals as costed by the subsidiary (and the overvaluing of the import prices of the machinery, equipment, inputs and services) enables the corporation to reduce the sum subject to local taxation.

Lastly, one of the new forms of co-operation with the joint enterprise or independent State enterprise which the transnational corporation has an interest in furnishing, together with administrative services as such, is marketing services, where it can make use of its extensive experience, its established contacts with networks of intermediaries and associated companies, and its position on the exchange. If the public enterprise has still not succeeded in competing in world markets by establishing a similar marketing capacity it will remain dependent to a greater or lesser extent on the transnational corporation.

For this reason, the public sector of the mining country not only has a great interest in controlling the transfer prices in the transactions within the company and the prices and other buying and selling arrangements with the transnational corporation's customers —control which has its limits and problems as has been demonstrated by MINPECO in Peru— but also and primarily in establishing its own marketing capacity. The experience of CODELCO, MINPECO, ENAF and the public sector in Jamaica indicates, especially with respect to direct sales to consumer companies (both in the new markets of the Latin American and socialist countries and in the traditional markets) but also to traditional marketing, that this road is hard and long but of decisive importance. The initiatives promoted by UNCTAD in particular to establish joint marketing enterprises among the mining companies of the periphery could open up new projects in this area (UNCTAD, 1979 and 1983).

In minerals processing the interest of the transnational corporation was traditionally to locate the plants in its country of origin or in

other metal market countries in order to minimize costs (including those connected with tariff and other protectionist barriers), to ensure flexible and profitable marketing of both concentrated and processed minerals and, lastly, to avoid the political risks in the developing countries. These same motivations are prompting the transnational corporations to relocate the minerals processing in the peripheral countries, as can be seen from their clear preference for the relatively industrialized countries with large metals markets and for those which offer sizeable comparative advantages with respect to processing costs (energy above all, but also qualified labour and tax advantages). The Latin American experience also teaches that in joint enterprises the transnational corporation has an interest in retaining control over the transferred technology, particularly in this more complex era (for example, the conditions imposed for the possible expansion of aluminium production capacity

in Jamaica). On the other hand, the relative diversification of the technology market in this sector, in which many independent companies operate, obliges the transnational corporation to compete in this area as well and to offer to sell technology and technological services to the public enterprises.

It has also been demonstrated that, despite the progress achieved by the public enterprise in relocating minerals processing to the mining countries and the resulting progress in industrialization, increases in the drawback value of the exports and increased marketing capacity, the problems of costs and profitability persist in several cases (for example, the Ilo State refinery in Peru, ENAF in Bolivia). This validates, particularly in the present economic crisis, the policy of also taking advantage of the services offered by the transnational corporation to the public enterprise with respect to the leasing of its processing capacity.

*Annex*

**LIST OF MAIN INTERESTS, CRITERIA AND OPTIONS FOR  
INTERACTION BETWEEN TRANSNATIONAL CORPORATIONS  
AND THE GOVERNMENTS OF MINING COUNTRIES BASED  
ON THE LATIN AMERICAN EXPERIENCE<sup>a</sup>**

| Topic  | A. Transnational corporations   |
|--|---|
| 1. <i>Global objectives in the mining country</i>                                  | Guaranteed supply of the mineral for exploitation with minimum costs and maximum profits on the capital invested by its share-holders and the project's financiers, always considered as a link in vertically and horizontally integrated world operations.   |
| 2. <i>Financing and return on the direct foreign investment (or joint project)</i> | <p>a) To reduce the input of own capital by requiring banks and financiers commercially connected with the project, governments and international organizations to bear jointly any possible economic and political risks;</p> <p>b) Guarantees of rapid total return on the real value of the investment (including cases of nationalization)<sup>b</sup></p>  |
| 3. <i>Ownership and control of the enterprise</i>                                  | <p>a) Under the traditional concession they belong exclusively to the transnational corporation;</p> <p>b) By reacting flexibly to nationalist demands under existing legislation, to agree to joint ownership with the public enterprise or the local private sector, but safeguarding the interests of its share-holders and the project's financiers through effective and profitable control and with acknowledged loyalty;</p> <p>c) To replace direct ownership and control of the project by profitable contractual arrangements with the public enterprise, furnishing it the required technology, know-how and services.</p> |
| 4. <i>Taxation (redistribution) of earnings and profits</i>                        | <p>To minimize taxation costs in the light of the economic and political risk assumed by the transnational corporation through:</p> <p>a) Low rates, exemptions and guaranteed long-term incentives;</p> <p>b) Rapid depreciation and other advantages in the initial difficult period of exploitation;</p> <p>c) Equal treatment (with the public enterprise and the local private mining company), also avoiding double taxation;</p> <p>d) Control of transfer prices in transactions within the corporation.</p>  |

<sup>a</sup>Taking also into account the presentation by the Director of Rio Tinto Zinc Corp. (Thompson, 1984).

<sup>b</sup>Including the value of geological prospecting and preparation of the mine.

| Topic   | A. Transnational corporations   |
|---|---|
| 5. <i>Local employment and training</i>   | a) Essentially paternalist attitude towards underdevelopment expressed through training, promotion and social benefits with a view to ensuring loyalty to the transnational corporation and its control (3.b, above);   |
| 6. <i>Local inputs and services</i>   | b) Training services for the public enterprise. Preferential treatment, provided that quality and prices are internationally competitive (and not subject to adjustment).   |
| 7. <i>Marketing of the enterprise's output</i>  | a) Free availability of the goods produced for more profitable disposal (see also 4.d);<br>b) Compensation (e.g., through the tax system) for regulation of sales by the government of the mining company;<br>c) Marketing services for the public or joint enterprise.   |
| 8. <i>Minerals processing and industrial and technological relocation</i>   | a) Preference for location in metal market countries to minimize costs (including protectionist barriers), ensure flexible and profitable marketing and avoid political risk (nationalization);<br>b) With similar objectives and maintaining technological exclusivity, location in peripheral countries, especially: i) relatively industrialized ones; ii) those with comparative cost advantages (energy, tax, etc.);<br>c) To sell technology and services (plant, equipment, etc.). |
| 9. <i>Expansion of production and exports (from existing capacity and through modernization and new investment)</i> | To consider the profitability of current and forecast prices in the world market to regulate the supply through proper use of installed capacity and programming of new investments (possibly with the formation of cartels with other corporations).   |
| 10. <i>Infrastructure and environment</i>   | Under the modern concession system, considered to be investment costs.  |
| 11. <i>State control of the transnational corporation</i>   | a) To minimize and obtain national treatment (equal with the public enterprise and private mining company)<br>b) Rapid, flexible and concentrated administrative procedures;<br>c) Possibility of unlawful acts (double accounting, bribing of civil servants, etc.).   |
| 12. <i>Renegotiation and settlement of disputes</i>   | a) Long-term stability and irrevocable nature of the guarantees granted;<br>b) Jurisdiction of international organizations, in the interest of shareholders of the transnational corporation.   |

| Topic  | B. Governments of peripheral countries   |
|--|--|
| 1. <i>Global objectives in the mining country</i>                                  | <p>Optimum utilization of the mineral resource to maximize:</p> <p>a) GDP and foreign-exchange and budgetary income;</p> <p>b) National integration of the mining project in terms of: i) welfare, local employment and inputs; ii) technological development and industrialization; iii) control (national sovereignty) over mineral and metallurgical development.</p>   |
| 2. <i>Financing and return on the direct foreign investment (or joint project)</i> | <p>a) To support the project with the necessary guarantees and participating, where appropriate, in its financing;</p> <p>b) To improve the cost and terms of loans, including greater participation by international organizations;</p> <p>c) In the event of nationalization, to restore the book value of the transnational corporation.</p>  |
| 3. <i>Ownership and control of the enterprise</i>                                  | <p>a) To control the terms of the concession and to renegotiate it;</p> <p>b) To find and test ways and means for exercising effective and advantageous sovereignty in accordance with the country's socioeconomic conditions;</p> <p>c) Particularly point B.5, above.</p>  |
| 4. <i>Taxation (redistribution) of earnings and profits</i>                        | <p>To maximize State income by distinguishing:</p> <p>a) Between the periods of attraction, entry and amortization of the direct foreign investment and the period subsequent to its maturity and in this period;</p> <p>b) Between the unilateral repatriation of excess and extraordinary profits (graduated rates) and expansion and reinvestment (regressive rates and other incentives);</p> <p>c) In favour of greater expansion and integration of the project (see b, above);</p> <p>d) Between complicated instruments and easy administration.</p> |
| 5. <i>Local employment and training</i>  | <p>To increase local qualifications and experience in order to reduce external dependence, limit it to the new technology and know-how required, and achieve own capacity to export services.</p>  |
| 6. <i>Local inputs and services</i>  | <p>Upstream incorporation as part of the national integration of the project.</p>  |
| 7. <i>Marketing of the enterprise's output</i>                                     | <p>a) Control of transfer prices (by means of reference prices);</p> <p>b) Marketing participation or monopoly to increase the drawback value and diversify markets (in the direction of non-traditional ones).</p>  |

| Topic   | B. Governments of peripheral countries  |
|---|---|
| 8. <i>Minerals processing and industrial and technological relocation</i>   | <p>a) National integration of the mining project through relocation of processing in the peripheral country to increase the aggregate value (industrialization) and drawback value (foreign exchange) and diversify markets;</p> <p>b) With similar objectives and in accordance with the local and world market situations (in the medium term), to select modalities of co-operation with the transnational corporation and other enterprises (including public and State enterprises in the industrialized countries).</p> |
| 9. <i>Expansion of production and exports (from existing capacity and through modernization and new investment)</i> | <p>a) In the light of the global objectives (B.1) to maximize production and exports (foreign-exchange earnings especially in times of crisis);</p> <p>b) Given cartel-style economic and political conditions (OPEC for example), to regulate supply in conjunction with governments and enterprises of other mineral producing countries.</p>   |
| 10. <i>Infrastructure and environment</i>   | To promote the maximum national integration of the project (B.1.b).   |
| 11. <i>State control of the transnational corporation</i>   | <p>a) To exercise effective control by enforcing legal regulations and agreements with the transnational corporation;</p> <p>b) To combine the global approach and centralized control with specialized expertise and responsibility.</p>   |
| 12. <i>Renegotiation and settlement of disputes</i>   | <p>a) Guaranteed and sovereign right to renegotiate;</p> <p>b) National jurisdiction (Calvo doctrine) and/or representatives of the two parties with independent chairman.</p>  |

| Topic  | C. Options  |
|--|---|
| 1. <i>Global objectives in the mining country</i>                                  | <p>a) Traditional concession of the mineral resource to the transnational corporation;</p> <p>b) Developmental concession (integrative);</p> <p>c) Nationalization of the transnational corporation by the government or its own separation from the project;</p> <p>d) Joint enterprise or other form of co-operation.</p> |
| 2. <i>Financing and return on the direct foreign investment (or joint project)</i> | <p>a) Financial agreements and plans;</p> <p>b) Agreements on repayment of the investment and loans from the output of the investment;</p> <p>c) Lending programmes of the World Bank, IDB, etc.</p>  |

| Topic   | C. Options   |
|---|--|
| 3. <i>Ownership and control of the enterprise</i>   | See points 1.a-d above and, with respect to c and d, particularly agreements and contracts for: i) joint enterprises with shared ownership; ii) services (control) of administration, exploration, technology and engineering, marketing, transport, etc.; iii) purchase sales transactions in the output of the project, machinery, equipment and inputs, plant with key in hand, etc.; iv) combinations of i - iii). |
| 4. <i>Taxation (redistribution) of earnings and profits</i>   | a) Royalties on production volume or value;<br>b) Royalties or taxes linked to selling prices;<br>c) Tax linked to profit rate;<br>d) Other taxes on earnings/profits;<br>e) Tariffs, duties and other charges;<br>f) Dividends of joint enterprises;<br>g) Special schedules of incentives, discounts, etc.   |
| 5. <i>Local employment and training</i>   | a) Agreements and plans on training and promotion between the government and the transnational corporation;<br>b) Contracts concerning administration, consultancy, training, etc., between the public enterprise and the transnational corporation.   |
| 6. <i>Local inputs and services</i>   | Agreements and plans for local supplies.   |
| 7. <i>Marketing of the enterprise's output</i>  | a) Agreements (guarantees) between the transnational corporation and the government (public enterprise);<br>b) Direct marketing agreements (short- and long-term) with governments and enterprises (including loan-repayment agreements).  |
| 8. <i>Minerals processing and industrial and technological relocation</i>   | a) Incentives and administrative measures to encourage the transnational corporation to achieve greater industrialization;<br>b) Agreements between the public enterprise and the transnational corporation or other corporations (independent of it) in accordance with A.8.c;<br>c) Including leasing of the processing capacity (toll) in the metal's market country.   |
| 9. <i>Expansion of production and exports (from existing capacity and through modernization and new investment)</i> | a) Tax incentives (B.4.c) and agreements with the transnational corporation;<br>b) Agreements under UNCTAD's Integrated Programme (as in the case of tin);<br>c) Agreements in producers' associations.  |
| 10. <i>Infrastructure and environment</i>   | Agreements with the transnational corporation, with possible local participation.  |

| Topic   | C. Options  |
|---|---|
| 11. <i>State control of the transnational corporation</i> | a) Legislation, administrative rules, agreements with the transnational corporation;<br>b) Organization of the control apparatus;<br>c) Directors of the public enterprise. |
| 12. <i>Renegotiation and settlement of disputes</i>       | a) Legislation and agreements with the transnational corporation;<br>b) Expert advice of organizations in the producing countries and independent experts.                  |

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## Mining development and the origin of capital

Patricio Jones \*

The present development of Latin American mining depends on several factors, including the existence of natural resources, the geological knowledge of these resources in the countries, political stability to obtain long-term investments and, of course, the capital needed to stimulate this development. The author deals with all these aspects, but he concentrates on the need for capital—the importance of which is increasing in view of the current economic crisis—and above all, on the conditions that would increase the likelihood of obtaining foreign investments, since public and private national enterprises might not be able to cover this need by themselves. He thus suggests the design and application of formulas that take account of both foreign investment and the national interest, although it is recognized beforehand that such formulas are not easily transferable from one country to another.

Having thus expounded the problem, he considers the nature of mining investment, especially the risks and benefits involved in the mining cycle; the present moment in metal mining, characterized by a fall in profit margins; the Latin American efforts to increase national control of mining resources; the function of the State in this sector; and the origin and generation of capital for mining.

In the final part he sums up his suggestions in a number of recommendations such as: to consolidate political and institutional stability, to programme development, to capitalize the national mining industry, to obtain transnational capital and *know-how* to negotiate its use, to balance and restructure the Latin American mining industry, and to reorient regional co-operation along pragmatic lines.

\* Mr. Jones is an Argentine geologist who is at present directing some private mining projects in Brazil. The views presented in this article are his sole responsibility and do not necessarily coincide with or represent those of his firm.

## I

### Introduction

Latin America has been characterized economically as a region on the periphery of world development, and this has become very clear in the current economic situation, in which the economies of the region are accumulating heavy external debts, which, together with their interest payments, are factors that restrict development. Moreover, the region continues to be dominated politically by the myth and reality of *Caudillismo* and is also powerfully influenced by two of the great surviving ideologies of the century: religion and nationalism (O. Paz, 1984). With few exceptions, the present Latin American scene is typified by industries in recession or with low rates of growth and economic and political vicissitudes that affect in greater or lesser degree the developmentalist models applied to the economies of the region.

In a world that is evolving towards the post-industrial society (Toffler, 1985), most of the Latin American countries are still trying to model industrial development processes that they cannot always put into practice or that do not signify social progress. The region has not yet devised a model of its own that will enable it to determine which technological advances are appropriate to the human needs of its regions and culture.

Within this context, with its local variants, the Latin American governments, also with different emphasis, have recognized mining, with its capacity to generate exportable surpluses, as one of the viable solutions for reviving the regional economies. In view of the general shortage of genuinely Latin American capital for investment in mining, we are at present at a stage in which various governments are employing different incentives to capture foreign capital for mining projects in different phases of evolution.

In some cases, the scarcity of Latin American capital in mining does not necessarily imply its non-existence, but rather its flight abroad, since investors prefer, as in the case of Argentina to purchase foreign currency and other investments in the United States (M. Bunge, 1985).

In many Latin American countries the capitalization of national industry, both private and

public, does not suffice for all the priority investments of development, but even so the role of transnational capital in the local economies is the subject of great controversy.

As regards mining, it is undeniable that for Latin Americans the exploration and exploitation of the subsoil should be carried out with an eye to the national interest. There is argument,

however, as to the way to reconcile this interest with the procurement and control of transnational capital in a high-risk activity. National private capital, State capital, and foreign capital have played a part in the mining industry which is not necessarily the same from one country to another.

## II

### Mining investment

It is necessary to know exactly what mining investment signifies in order to understand the benefits that this activity can confer on the community, the risks that investment in mining involves, and the legal and tax measures that can favour or inhibit the development of mining.

Mining is an industry that creates new wealth, which however is non-renewable. For example, the profit on each new metal deposit discovered in Canada (Snow and Mackenzie, 1981) is around US\$ 60 million. The creation of new wealth, through direct discoveries of deposits and wealth generated by the industries connected with mining, such as ore reduction, metallurgy, etc., contributes, in countries like Australia and Canada, around 10% of the GDP and 23% and 21% annually, respectively, of all new wealth incorporated into the economy (Woodhall, 1983).

The collateral benefits of mining —for instance, its influence as a job creator— can be considerable. In countries like Australia and Canada 15% and 8.2% of the total labour force is employed in industries related to mining. In the Latin American countries which are net exporters of minerals, mining contributes to the equilibrium of the balance of payments, generates export surpluses, and in the case of some Andean countries such as Chile, Peru and Bolivia, represents one of the most important sectors of the economy.

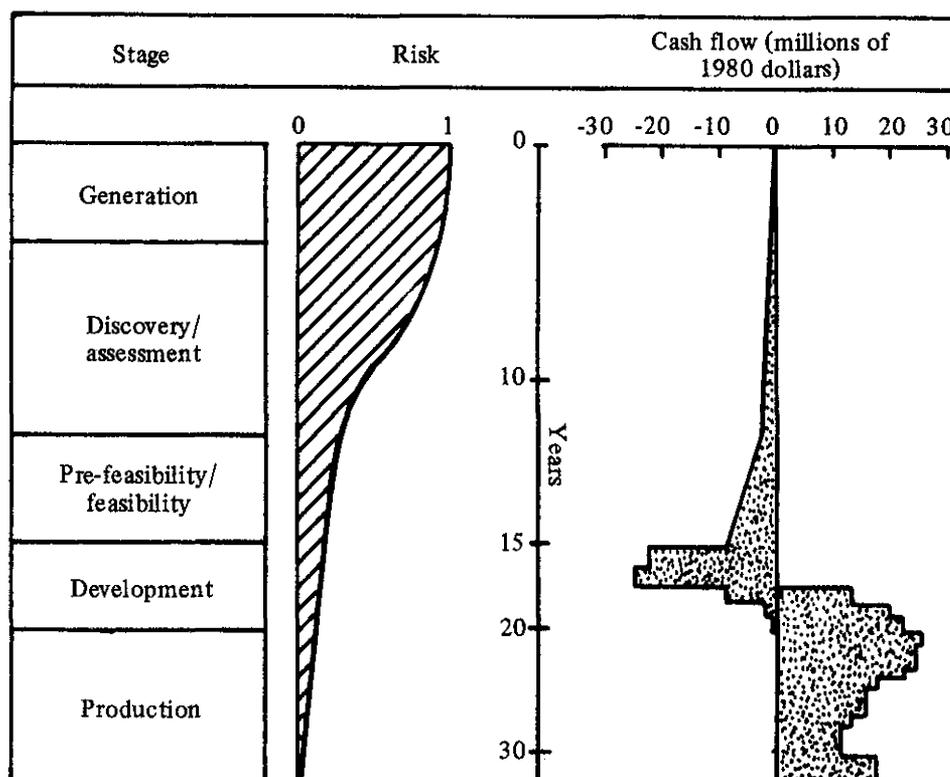
Woodhall (1983) described the mining cycle and the risks and benefits involved in mining projects. In an earlier work (Jones, 1985), I enlarged on several of these concepts in relation

to the mining situation in Argentina. The main stages of a mining project consist of generation, exploration-discovery-assessment, prefeasibility-feasibility, development and production (see figure I).

The cycle between the generation of a project and the end of production can last from a minimum of 10 years up to periods of 30 years or more. Each stage has well-defined cash flows, which are negative at the outset, and variable risks which cannot always be fully assessed. I have analysed the risks in some detail (Jones, 1985), but as regards Latin America it must be emphasized that latterly the region has displayed a high political risk in its lack of stability, failure to fulfil signed agreements, absence of long-term mining policies approved by society, etc. It can be stated as a general rule that the main risk in mining, which is the partial or total loss of the capital invested, begins with the project at the exploration stage and gradually diminishes up to the production stage.

As the mining industry is subject to price cycles which are characteristic of the different mineral markets and which are of shorter duration than the useful life of a project, measured from its generation to the end of production, mining companies financed by private capital argue that legal and tax policies should allow the profits of the high-price cycles to accumulate and not be taken away through taxation surcharges, so that the mining industry can finance exploration in the subsequent mining cycles (Woodhall, 1983).

Figure I  
**MINING CYCLE-RISK AND CASH FLOW (FROM WOODHALL)**



### III

## The present situation in metal mining

World metal mining is passing through a period of decline in profitability. The factors contributing to this include the increase in the size of the reserves, together with the ease of access to reserves of low production costs, variations in

consumption, including substitution; and, especially, from 1975 onwards, a variation in the cost structure due to the rises in oil prices.

The increase in the availability of metalliferous resources is illustrated in the following table:

**CHANGES IN RESERVES, 1950 TO 1981**

| Over tenfold increase | Threefold increase or over | Twofold increase or over | 49% to 99% increase | 10% to 39% increase |
|-----------------------|----------------------------|--------------------------|---------------------|---------------------|
| Phosphates            | Chromium                   | Lead                     | Asbestos            | Antimony            |
| Platinum group        | Cobalt                     | Manganese                | Bauxite             | Diamonds            |
| Potassium             | Fluorite                   | Molybdenum               | Silver              | Gold                |
|                       | Iron ore                   | Nickel                   | Tin                 | Tungsten            |
|                       | Sulphur                    | Zinc                     |                     |                     |

Source: Stanford Research Institute.

With this increase in world reserves, the projects or mines which are most profitable (generally as a result of higher ore contents) have survived, while other projects remain still undeveloped.

Taken together, aluminium, chromium, cobalt, copper, iron, manganese, nickel, platinum, steel, tin, tungsten and zinc represent from 80% to 90% of the total value of world mining output. The total demand for these 12 metals (including steel) grew constantly from the 1950s to 1975 at rates varying from 100% to 500%.

From the mid-1970s onwards, mainly because of the onset of the oil crisis and its effects on the world economy, the mineral market (metallic and non-metallic) has suffered a widespread fall in consumption. For instance, during the period 1972-1980 there was a decline in the consumption of copper, lead and zinc per unit of production, mainly in the motor-vehicle industry. During this period aluminium has been one of the metals that has increased in consumption, owing mainly to its light weight, which enables it to compete in the motor-vehicle industry and to replace tinplate in packaging.

There has also been an increase in titanium consumption, through its wider application in aviation and other specialized industries, as well

as in the consumption of some rare-earth minerals.

Several studies, such as that given in the *American Mining Congress Journal* of 11 February 1984, consider that for some metals the growth of consumption is very slow: aluminium 3.6%, cobalt 2.1%, copper 1.4%, lead 0.5%, zinc 1.9%, etc. Although the growth rates predicted worldwide are lower than those of the 1970s, one of the regions of the world that might show a greater increase in metal consumption as a result of the promotion of industrialization is precisely Latin America.

As a result of the increase in the available mineral reserves and the fall in consumption caused by many factors, among them substitution, we are witnessing a significant fall in the real prices of minerals in general. Since at the same time real production costs have risen because of the increased cost of fuels and energy, mining profits have fallen and many mining companies periodically experience financial problems.

This situation has resulted in widespread difficulty in obtaining risk capital for mining, and firms have had to resort to credit from third parties, which in its turn has made the profits of mining projects extremely sensitive to international interest rates.

## IV

### The present situation of Latin American mining

The history of the postwar period shows a constant effort on the part of Latin American mining to obtain control of its mining resources. In an increasingly integrated world economy, the Latin American countries have tried to develop their energy resources with policies that give effective control of these resources to the State enterprise, together with policies of granting concessions, especially for oil prospecting. Some joint ventures, such as that of Cerro Matoso in Colombia (coal) and the exploration for uranium in Paraguay, indicate some presence of foreign capital in the energy field.

As regards metal mining, in countries like Chile, Peru and Mexico, the originally foreign financing was followed by the nationalization of

the investments, which is interpreted as a trend towards equilibrium between national and foreign capital.

The desire to administer and employ national mineral wealth in the national interest and the excesses committed by multinational capital in the mining industry (Deverell, 1975) and in other fields (Lozada, 1973) have given rise to new forms of adjustment and association. In the last decade there has been the example of the Brazilian case, in which mining development has been promoted by public and private national capital, together with foreign capital. There have also been attempts at joint ventures between State enterprises and foreign capital. Examples are Cerro Matoso (Colombia-Billiton), *Americano do Brasil* (Metago-Shell),

etc. This brings us to the situation as it stands today. Chile and Peru, with outstanding mining development in the regional context, are beginning to suffer the obsolescence of some of their equipment and the need for capital to keep exploration alive; Brazil is endeavouring to recover former growth rates and to balance the function of foreign capital with the social needs of primitive self-employed miners; Bolivia is attempting to revive its mining sector, which has stagnated through lack of investors, political problems, and the low price of tin; Venezuela is re-examining its metal mining policy, traditionally second in importance after petroleum policy; and countries like Ecuador and Argentina are devising mining policies designed to attract investment.

Within this setting, I contend that Latin America is one of the regions of the world that offers the most potential attractions for mining investment. I have already analysed the reasons for the attraction it offers to mining, which are mainly based on lower geological risks (Jones, 1985). The potential for finding deposits of high-grade ores in which the cost-benefit ratio allows higher dividends is greater than in regions of the world already geologically explored. But this factor is not, or at least has not been hitherto, conclusive for foreign capital investment. This is due to certain intrinsic factors, some already mentioned, such as political fluctuations, and also to some extrinsic factors, which we will now consider.

## V

### The function of the State in mining

The function of the State should be to create a mining policy that will be known and accepted by society and to maintain it through political changes, in order to give long-term investment the stability that will allow it to be profitable. Within this policy, the legal framework should lay down the benefits that the community and the country in general should derive from each mining project and should channel part of those benefits into the region where the non-renewable resource is being exploited. The State should invest in the study of its own geology, since it is difficult to negotiate without knowing one's own potential.

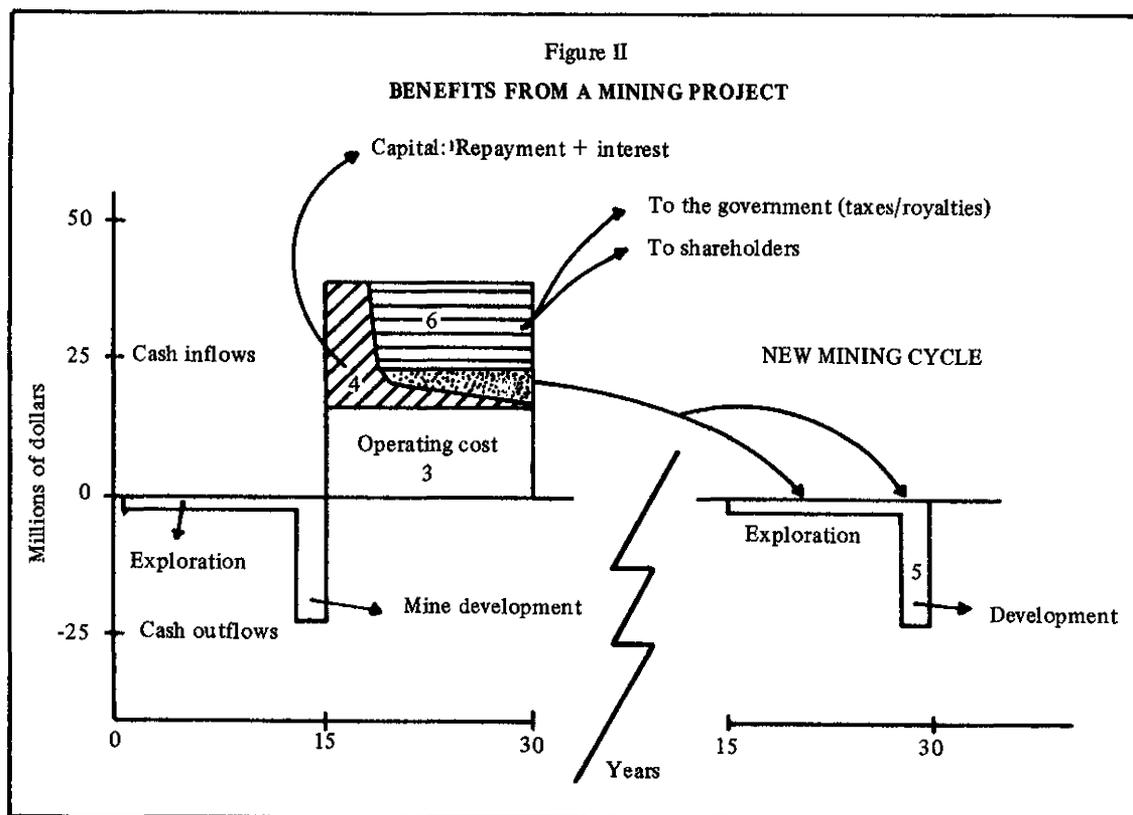
Almost all the South American countries are seriously deficient in their geological surveys and regional geophysical coverage; this is the case, for instance, in Bolivia, Peru, Ecuador, Colombia, Venezuela, the Guyanas, Suriname, and the Amazonian sector of Brazil; in the southern sectors of Argentina and Chile; in Paraguay and Uruguay as regards geophysical complementation, etc. It should be a specific function of the State to provide investors with a minimum data bank which will enable them to know the geological risk involved.

Recently investment by Canadian and German State institutions has helped to ascertain the geophysics of the States of Goiás and Minas

Gerais in Brazil. This type of technological and financial assistance is highly beneficial and should be imitated.

The State should foster the development of small and medium-scale national mining and create suitable conditions for risk capital to be attracted to mining. It should make known not only the mining risk but also the enormous benefits for investment capital involved in some mining enterprises and the ways in which they affect the country.

Figure II, modified from Woodhall, shows the benefits from a typical mining project. In the figure it is assumed that the project was financed entirely by foreign capital, and area 4 represents the remittances of foreign exchange abroad in respect of the invested capital and the interest on it. In this case the figure shows remittances abroad which would enable the capital and interest to be recovered in the shortest possible time, which is generally achieved by first exploiting the best part of the mineral deposit. The country benefits from area 3, because part of the operating costs are salaries and spare parts bought in the country; from area 5, if the prospecting capital is reinvested in the country; and from the part of area 6 which corresponds to taxes and royalties on the mineral extracted. Still with reference



to figure II, if national capital took even a minor part in the project, some of the dividends and profits on the capital invested would also remain in the country of origin.

Certain mining projects must be negotiated with foreign investors, especially those that require large investments (more than US\$ 50 million) or those that need a fixed buying market, or any number of other cases in which the project is only feasible if negotiated with foreign investors. In these cases the State should train its negotiators and maintain permanent teams through all the political fluctuations. In this sense, the negotiation of mining resources is a professional speciality which, if not available in the country might well be contracted, as happens in some countries (Papua-New Guinea) when negotiating the exploitation of some of their mineral resources.

The legal framework should be clear, especially in respect of foreign capital and the profitability of the projects. It is not only necessary to stipulate the amount of capital that can be repatriated and the levels of taxation and reinvestment in the country, but also to make special

arrangements concerning projects of exceptional profitability. Projects that recover the investment in two years of production for useful lives of over ten years call for special legislation which should be anticipated by the code before their discovery. In the previous example: What is the benefit to the nation if, from the third year of life onwards, this project still comes under a law designed to give fiscal benefits in order to attract risk capital?

I believe that the mining policy of the Latin American countries cannot be restricted to the attraction of overseas finance or the provision of incentives for small-scale mining. These countries should also apply policies of support for medium-scale mining in order to form national capital, like those which once functioned or are still in force in Peru, Chile, Bolivia and Mexico, among others. It is indispensable to have some private national capital in the mining industry of each country. Tax exemptions and other incentives could be established, provided that there is effective control over the enterprise benefited and verification that the total benefit is invested in the mining project itself.

## VI

### The origin and generation of capital for mining

The function of the State as generator of risk capital for mining has recently been analysed by Stobart (1984), among others, and it is not my intention to enlarge on the subject. It is obvious that in the present state of the Latin American economy, some governments have other priorities, and the countries with a mining tradition like Chile, Bolivia, Peru and Mexico still need overseas capital to complement their own.

I shall examine in broad outline the traditional ways in which risk capital has been generated for mining. By and large, it was non-diversified companies whose main line of business was mining that dominated mining investment up to the 1960s, using their own resources or cash flows. It was relatively easy to obtain credit or equity funds, and these served to complement the cash flows. For this period, the generation of funds to finance the mining industry through the internal saving of the mining companies is illustrated by Woodhall (1983), who underscores the need to obtain high profits in order to generate the risk capital needed to finance the subsequent mining cycle (exploration-discovery-development and production).

In the 1960s and 1970s, this type of basic financing became much more complicated. Some of the complicating factors were: the intervention of the State, as majority partner or not, in mining investment; the proliferation of mixed companies in order to procure capital and minimize of risks; and, above all, the cost of capital and its interest, and the need to make the best possible use of finance in order to maximize profits (Mikesell, 1984).

In the industrialized countries, the decline in the ore content of their reserves and those of the Third World, inflation, and the generalized rise in costs, further increased by the interest on capital, led to several changes. In order to improve profitability by reducing costs per unit of volume, very large projects were promoted which needed capital of the order of billions of dollars. Many mining companies thus lost the capacity to finance projects exclusively from their own cash flows, and this gave rise to the diversification of the origin of capital (Kostuik,

1984). At the end of the 1970s and during the present decade, the big oil companies appeared on the scene in the mining industry and acquired enterprises with metal-bearing natural resources and energy sources such as coal. Other non-traditional sources of capital generation also gained importance, such as banks, insurance firms, and companies administering funds. At the world level, there was an enormous diversification of the origin of capital applied to mining. In Brazil, some engineering and construction companies devoted themselves to mining and came to form medium-scale enterprises.

Recently the fall in the profits of a number of mining projects, together with other factors, have caused mining to lose many of these non-traditional investors, such as a large number of the oil companies.

Wilson (1984) analysed the source of financing in climates of economic uncertainty, in which factors such as economic cycles, variations in supply and demand, lower prices, higher capital costs and lower profitability affect the procurement and complicate the generation of funds for mining, but at the same time diversify and innovate the origins of finance.

In this connection, innovative fiscal policies (Parsons, 1982) and the attraction of resources from the smaller multinational enterprises and the public market in Canada (Powis, 1984) are evidence that there are various alternative sources of funds for mining. Finance for small and medium-scale mining projects, whose cash flow generally does not attract the larger multinational corporations, may come from the public treasury through the issue of shares or from private capital, through the creation of joint ventures.

The procurement of resources in countries which are traditional consumers of minerals such as the European Common Market and Japan ensures the sale of the output, or part of it, in future contracts, and has the further advantage of guaranteeing prices; this subject has already been debated in ECLAC, and another point to be taken into account in the case of Latin America is the quantity of exportable mineral resources available.

Latin American mining is at different stages of evolution and finance for its development may come from various sources, but at present it is clearly dependent to a greater or lesser degree on foreign investment.

As regards overseas capital, the success of each Latin American country in obtaining the capital necessary for the development of its mining projects will depend in part on the project in itself, on factors such as competitiveness at the world level, the presence of local capital willing to share in the investment, and the confidence generated in the project. It will also depend on factors intrinsic to each country, such as political stability, profitability rates and the taxes placed on the repatriation of the invested capital. Outside factors such as prices in the international market and the reserves of the purchasing country also play decisive roles, but the basic factor is usually the long- and medium-term policy of the investing enterprise. The diversification of transnational capital and of its enterprises, and their overall view of the world economy, mean that at present the Latin American countries are

competing among themselves for mining investment. Although no specific rules can be given as to which projects might be more attractive to capitalists, it may be suggested, in general, that such projects will be those of greatest profitability, or those which allow for specific technologies, including those in which domestic demand for the mineral consumes part of the output or for which there is an assured external demand.

Owing to the low prices of the metals and the cost of capital, certain types of large mining projects—for example, those producing basic metals (copper, lead, zinc) at the rate of 100 to 170 tons a day, or aluminium projects smelting 450 000 tons a year—are not profitable enough to obtain the capital needed to develop them (over US\$ 500 million). Hence the Latin American countries with medium-scale projects of high unit value involving precious/volcanic/epithermal metals or massive-sulphides may be currently more attractive to transnational capital if they can show political stability, security of ownership and of remittances of the invested capital, etc.

## VII

### Seven remedial prescriptions

The development of mining depends firstly on the existence of the natural resource and after that on the country's geological knowledge of its resources, on the stability needed to allow long-term investment planning, and on the generation or attraction of capital to finance and renew the mining cycle.

In Latin America the interaction between these and other factors has resulted in uneven exploitation of mining resources and frequently the lack of the basic conditions—stability and geological knowledge—has delayed or prevented the procurement of the capital needed for mining development.

Seven proposals are put forward below for measures to remedy this lack of capital.

#### *Stability*

We have seen above that the mining cycle needs time to produce benefits. A country that is institutionally stable, where there is a defined mining policy coherent with its needs, which has the support of the entire nation and provides for

the minimum investments needed for the study of the country's geology, and where the legal framework is clear, represents a lower risk, and as such is more attractive to the national or transnational investor.

#### *Programming development*

As far as capital is concerned, the mining policy should have the specific guarantee of the government and the opposition, in order to avoid fluctuations that affect the mining cycle. Basic questions needing replies and programming are: What mining development project is expedient for the country? When this project has been identified (whether it be import substitution, export, development of specific minerals such as fertilizers for agriculture, etc.): can the national industry and the State finance it? If not, as is normally the case in developing countries: where will the capital come from to finance the mining development project? How is such capital to be attracted?

*Capitalizing the national mining industry*

The ideal would be to achieve an autonomous and self-sustaining local mining industry, but this is not attained even in the countries with the greatest mining tradition, for in them the capital is of both national and transnational origin and there is always a lack of certain minerals that have to be imported.

Latin America depends on foreign capital for its development, and mining is no exception. Since this is a high-risk industry, Latin American capital prefers other investment options. Government measures to promote investment in the local mining industry and its capitalization, and the repatriation of risk capital for mining, are desirable and necessary, but they should be recompensed by the local mining authority which should assume part of the risk. One of the most usual ways of minimizing the risk is the formation of mixed societies.

*Procurement of transnational capital*

The procurement of transnational capital to finance projects is a vast subject with undoubted ideological and political connotations. Without enlarging on these aspects, which should be the subject of constructive debates, we can see that in the world of today capital finances a wide variety of projects in which the partners share benefits above and beyond their ideologies. Hence capital is not the nub of the question, but rather the use that is made of it and its benefit to the nation.

The situation of the world economy shows us that external finance is of supreme importance for Latin American development. What that development should be is part of the debate proposed by Paz (1985). It is also an obvious fact that both transnational and national capital seek basically to maximize their profits. How can this be reconciled with the goal of attracting foreign capital and maximizing for the country (see figure II) the benefits of the mining project?

Experience indicates that he who controls the finance generally has the power to maximize his profits. We believe therefore that the policy for attracting foreign capital should primarily consider how to procure and how to negotiate this capital, on the premise that the term "control" in this case is relative and depends on bargaining capacity.

The capacity to promote projects includes the identification of possible investors in order

to publicize the projects by adequate means in suitable fora and the formation of teams of specialists in mining economics who can negotiate with the backing of political stability within clear legislative and fiscal frameworks with precise limits, so as to secure the retention in the country of benefits proportional to the profits of the project.

*Negotiating with transnational capital*

A phrase used by the Brazilian minister O. Aranha has been difficult to apply in Latin America: "It is not a question of shutting the doors against foreign capital, but only of keeping the keys in one's own hand".

How should one negotiate, where are the limits, what control can keep the keys in one's own hand? My suggestions do not claim to be definitive. Starting from the premise that it is always necessary to consider which investor will leave most advantages for the country, there are innumerable factors that can affect the expediency of choosing one source of finance rather than another. Should one choose the investor who ensures a buying market (EEC, Japan, Brazil, etc.), or one who provides specific technical know-how (*solution mining* from France; *heap-leaching* from the United States or Canada; *shaft-sinking* from South Africa, etc.)? Which investor satisfies the capital needs of the project and which provides capital at a lower cost (the big transnationals, medium-scale enterprises, the public investor, or a combination of several of these)?

I believe that every fruitful negotiation or association implies concrete benefits for both negotiators: the sovereign nation and the investor who assumes the risk. The errors of the past taught a lesson, both to Latin America and to a number of transnational corporations; hence both sides now know how to negotiate more successfully (with advantages for both sides). In this context, the setting up of mixed companies with local capital are a *sine qua non* when some mining companies consider investing in developing countries.

For Latin Americans, knowing how to negotiate should mean knowing not only their own resources and risks, but also the structure and organization of transnational capital and the enterprises that finance mining. How are their executives handled, which minerals do they work, in which countries are they active, what is their knowledge of Latin America, etc.?

### *Balancing and restructuring the Latin American mining industry*

Balanced and harmonious mining development, as far as the origin of capital is concerned, is that in which the investments include both national capital (whether private or public) and transnational capital.

Balance in mining development does not concern only capital, but also labour. It has often been said that the greatest capital of enterprises is their manpower. Nevertheless, in Latin America we have had many examples in the recent past of the exploitation of workers, and not only by transnational capital but also by local entrepreneurs.

The maximization of the gains of a mining project implies not only the capitalization of the national enterprise but also benefits for the Latin American workers and professionals, who should share in the profits. Mining enterprises need to be restructured in order to promote participation and co-management by their employees.

The fact that workers are represented on the board of management or share in the profits by capitalizing their labour in the form of shares or dividends (gainsharing) can only foster their sense of responsibility towards the enterprise and their country.

### *Latin American co-operation: other ideas*

Ideas on Latin American co-operation have been examined by Le Guay (1985) and mining

could enter into the general context of this co-operation.

Would a Latin American multinational mining enterprise be possible? Or would it develop into a place for the advancement of personal interests and bureaucracy? If a beginning were made with bilateral agreements to satisfy complementary regional needs (petroleum, copper, sulphur) and if Latin American trade in minerals were strengthened through State or private marketing companies, some definite targets would already have been achieved. Examples of mining complementation might be iron ore and lead-zinc in the case of Brazil and Argentina.

Some Latin American countries might even attract investors by linking the external debt with mining. The conversion of part of the external debt—specifically that part with a doubtful chance of collection—into risk capital applicable to projects in the debtor countries is now being studied by some banks. Some mining projects might be converted into risk capital as payment for outstanding debts, provided that the risk were quantified and negotiated. These and other ideas, as O'Donnell (1985) notes, will depend primarily on the vision, courage and capacity of the political leaders of our countries to present their peoples with genuine options.

"Money talks", and the possibility of achieving equilibrium must be sought through Latin American unity. Everything can be achieved if one has the stature to achieve it.

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## New objectives for the development of mining resources

*Rolando Sanz Guerrero\**

The strategy for the development of the mining resources of Latin America is based on exploitation of the eight metal minerals for which there is greatest demand in the world market. The world crisis has been brought about not only by a decline in the export volumes and price levels of these products but also by a fall in the share of the developed countries in the mining exports of Latin America. The new markets which could absorb Latin America's mining production include its own market, taken as an integrated whole and not as a set of national markets. The dynamic potential of the regional market lies both in the expansion of per capita consumption (industrial use) and in the substitution of imports of mineral-based mining, metallurgical and manufactured products which together account for 40% of imports from outside the region.

To implement this new strategy action must be taken to attain the following objectives: a) the diversification of the production structure to bring it more into line with the region's needs and changes in the international market; b) the vertical integration of mining, metallurgical and industrial production to achieve an adequate level of regional self-sufficiency; c) the commissioning of new systems to facilitate intra-regional trade; and d) the implementation of programmes and projects of horizontal co-operation in order to disseminate the large stock of technological knowledge at present scattered among the various enterprises and institutions of the region.

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Latin America is a region rich in non-renewable natural resources. It has in its subsoil a great variety of metallic-mineral and energy resources. Despite this potential the region's productive structure is concentrated on eight metallic minerals destined mostly for the international market.

The region's mining sector has been dominated by a development pattern in which exploitation and processing has depended more on the stockpiling needs of the central countries than on domestic production needs. The mining sector thus helps the countries of the region to obtain inputs, machinery, equipment and other manufactured goods to meet its own needs; this is the reason for the difference between the purchase values of the minerals for the industrialized countries and the trade values for the developing countries. Whereas for the industrialized countries efficiency means obtaining these resources at the lowest possible cost or price, for the developing countries it is a function of the greater quantity of intermediate and manufactured goods obtained through trade, which depends on the volume and price of both exports and imports. Since for structural production reasons the demand-price of the imports of the developing countries is inelastic, the reaction to an increase in the price of imports is an increase in the volume of exports, which implies an age-long deterioration in the terms of trade. This difference between the price value and the trade value has caused a permanent conflict between the interests of the industrial countries and those of the developing countries, a conflict which various international forums have failed to resolve and which found its most dramatic expression in the escalation of hydrocarbon prices from the end of 1973.

### I

## The international mining products market

Latin America's situation underwent a dramatic upheaval in the period 1980-1985 with the drop in the rate of expansion of its exports and in raw materials prices; manufactured goods ran up against new protectionist policies on the part of

the developed countries and import prices rose—in a differentiated and unfavourable way for the region. At the same time, the hard terms of external credit, the high interest rates and short repayment periods meant that the servicing of the external debt increased at an annual rate of 30% (1975-1982); this situation is carrying Latin America into the worst financial and economic crisis in its history, for the growth rate of the total product has shown negative values for the first time in recent decades, and this means that large investments will have to be made up to the end of the 1980s to adjust the production and export structures to the new trends in the world economy and to restore the 1980 levels.

Mining has generally followed the development of foreign trade and most of the changes in its production and consumption structure are due to the events described above. However, this sector has its own characteristic performance, with greater growth in boom periods and deeper crisis in recessions.

The Western developed countries account for 40 to 45% of total world reserves, 50 to 55% of production, and 65 to 70% of consumption. The difference between consumption and production generates the majority of international trade. For all mining and metal products taken together, this group of countries generates 25 to 30% of world export volumes and receives in return 70 to 75% of total income as a result of the difference in the aggregate value of mineral raw materials and mineral-based manufactures.

Another of the main characteristics of the mining sector is the heavy concentration of world production of minerals in terms both of countries and of products. The production of 20 countries, including Brazil, Chile, Mexico and Peru, accounts for around 75% of world production. And 20 products represent some 95% of the value of world production, including the eight metallic minerals—iron, copper, lead, zinc, silver, bauxite, nickel and tin—which make up the larger part of Latin America's mining exports.

The volume and distribution of known mineral reserves, together with facility of access, are the main physical factors determining the possibilities of mining production. According to the figures of the Federal Institute for Geosciences and Natural Resources at Hannover concern-

ing 1981 reserves and 1980 production, there will be critical world shortages of asbestos, lead and zinc. However, only 10% of the land with mining potential has been properly explored in Latin America, and the same could be true of Africa, Asia and the countries with centrally planned economies. The region's mineral reserves represented more than 30% of world reserves of niobium, columbium, lithium, iron, molybdenum and copper, and between 20 and 30% of bauxite, selenium, bismuth, nickel and silver. At the other extreme, they represented 1% or less of reserves of cobalt, gold, potassium, vanadium, chrome, magnesium, platinum and rutile.

In the period 1960-1980, owing to favourable economic conditions, the world saw a widespread increase in the annual production rates of the various minerals, ranging from 2.1% for lead to 8.7% for potassium. There was a similar trend in Latin America, although potassium, in contrast to what happened at the world level, showed a negative rate (-5.3%). For the rest of the minerals of the region the annual production growth rates were generally higher than the world rates.

In 1980-1983 a group of 15 minerals had negative world production rates, ranging from 1.4% (lead) to -16.4 (molybdenum). Seven of the region's minerals suffered larger production cuts than the world levels: bauxite (-11.1%), chrome (-23.0%), cobalt (-59.1%), fluorite (-9.2%), manganese (-6.3%), and nickel (7.8%). In contrast, there was a notable recovery in iron, gold, silver, lithium and bismuth. Latin American production of niobium, lithium, bismuth, silver, antimony, bauxite and copper accounted for more than 20% of world production. Fluorite, tellurium, iron, selenium, baryta and tin had shares of between 15 and 20%. The levels of Latin American metal production were much lower than the region's share of mineral reserves and production, a fact which illustrates the region's relatively lower importance in the industrial processing of its metallic minerals. This production accounted for only 5 to 17% of world production of bismuth, tin, copper, manganese, lead, zinc, bauxite and nickel.

The movement in the world demand for mining products was not uniform either by region or by product in 1965-1983. A common feature was the downward trend in the subperiods 1974-1980 and

1980-1983. World consumption of the main metallic minerals increased at annual rates ranging from 1.7% for tin to 5.6% for nickel between 1965 and 1974. In 1974-1980 consumption ranged from -1.6% for tin to 2.1% for copper. In the last period (1980-1983) consumption was negative, except for copper, with annual rates fluctuating from -8.5% for bauxite to 1.9% for copper. In the period 1965-1980 Latin America consumed these minerals at annual growth rates higher than the world averages, ranging from 4.6% for tin to 20.9% for nickel in the subperiod 1965-1974, and from -2.8% for iron to 7.9% for copper in the period 1974-1980. In the period 1980-1983 Latin America's annual consumption rates were higher than the world averages for iron (19.9%), nickel (0.0%) and tin (-3.1%); however, the levels were lower than the average for bauxite (-10.9%), copper (-13.3%), lead (-8.1%) and zinc (-4.9%).

Latin America's low levels of industrialization and processing of minerals mean a low per capita consumption of metals and non-metallic minerals in comparison with the world averages: from 15 to 25% of world consumption of platinum, fluorite and bismuth, from 5 to 15% for manganese, antimony, asbestos, lead, copper, potassium, magnesium, zinc and mercury; and less than 5% for the others. While it is true that the variations in regional consumption still represent small volumes, they are more dynamic (with higher growth rates) than exports.

Changes in the production and consumption structures of minerals in the developed countries have repercussions on Latin America's share of world trade in these products. Between 1970 and 1980 its share of mineral exports declined from 15.2 to 13.54% and it increased to 17.01% in 1983. In contrast, metal exports showed a downward trend throughout the period with a share of 4.7% in 1970, 3.72% in 1980 and 3.5% in 1983. At current prices mineral exports grew at an annual rate of 7.9% between 1980 and 1983, following an annual decline of -1.1% between 1970 and 1980, a decline caused by annual drops of -7.0% and -6.9% in exports to the United States and Canada respectively. The biggest increases in the period 1980-1983 were achieved in exports to Canada, with annual rates of 32.6%; to other developing countries, 12.8%; and to the intra-regional market, 7.0%. Between 1970 and 1980 exports of metal products at current prices showed an annual decline of -2.1% owing largely to the fall

in exports to Canada (-30.7%), to countries of the European Economic Community (-6.6%), to other developed countries (-3.9%), and to Japan (-3.7%). In contrast, exports of metals to the countries with centrally planned economies increased at annual rates of around 21%, while the figure was 17% for the other developing countries.

Latin America's exports to countries outside the region were made up of the following minerals (the production percentages are shown in brackets): antimony (72%), bauxite (86%), bismuth (51%), cadmium (40%), cobalt (71%), copper (69%), tin (69%), iron (83%), lithium (98%), molybdenum (79%), nickel (76%), niobium (100%), gold (67%), silver (91%), lead (24%), rutile (100%), selenium (91%), tellurium (99%), tungsten (66%), and zinc (62%). In terms of value, eight of these minerals accounted for 95% of total mineral exports, which made up 10% of the region's total exports of goods. However, the ratio is higher for Bolivia (59%), Chile (53%), Guyana (44%), Jamaica (76%), Peru (34%), Dominican Republic (13%), and Suriname (82%).

In 1980 imports from outside the region were made up of 11 products, seven of which accounted for 99% of the value of mineral imports in that year. The group consisted of the following minerals (the percentages of the total supply are given in brackets): asbestos (57%), baryta (6%), chrome (16%), fluorite (1%), magnesium (5%), mercury (79%), platinum (99%), potassium (86%), phosphate rocks (52%), uranium (47%), and vanadium (22%).

In terms of relative prices the crisis had differing effects on the structures of mineral production, consumption and foreign trade. The minerals are classified in three groups: those which show an upward medium-term trend (1985-1990) —columbium, baryta, silver, lithium, magnesium, bauxite, tantalum, tellurium, zinc, vanadium, selenium, chrome and bismuth; those which maintain an almost constant level —arsenic, cobalt, gold, ilmenite, fluorite, rutile, nickel, manganese, mercury, copper, phosphate rocks, antimony and cadmium; and those which show a downward trend —thorium, potassium, platinum, molybdenum, sulphur, tin, iron, lead, tungsten and asbestos. It must be remembered, however, that the trade value for the region

showed a constant deterioration from 1950 (table 1).

The industrialized countries maintained their position with the traditional argument that countries would obtain a greater volume of product if they specialized in the area of production in which they had the greatest comparative advantages. Accordingly, the developing countries which had the greatest relative supply of labour and natural resources should concentrate on the production of minerals and metals, while the industrialized countries with their greater relative supply of capital and technology and with larger consumer markets should specialize in the production of machine-based metals and manufactures. It was supposed that the long-term relative price of minerals would increase as a result of the gradual exhaustion of mineral deposits. In turn, manufactures were subject to periodic technological change which would increase the advantages of economies of scale and bring down real costs and prices. The figures given above show that the opposite happened, for the traditional theory took no account of variations in the earnings elasticity of demand with declining values in the case of commodities

and increasing values in the case of manufactures, nor of the strong trade-union pressures in the developed countries for wage increases in step with increases in productivity, nor of the operations of transnational corporations which in the end combine the process of production and marketing in mineral-based mining, metallurgical and industrial activities.

This shows that the structure of the international market was more favourable to the industrialized countries; the harm which this implied with respect to the attainment of the goals of the developing countries prompted them to defend their interests in various international forums. For example, the declaration made at the tenth special session of the United Nations General Assembly in 1974 set out a programme summarizing the aspirations of these countries: the New International Economic Order. Subsequently both the developed countries and the OPEC countries refused to engage in a dialogue on the subject and insisted that international trade should be governed by the economic laws of a competitive market and that multilateral decisions should continue to be taken in the

Table 1

**LATIN AMERICA: TRADE VALUE OF MINING EXPORTS, 1950 TO 1985**

| Year | Real price index of mining exports | Real price index of imports of manufactures | Index of the terms of trade |
|------|------------------------------------|---|-----------------------------|
| 1950 | 100                                | 100   | 100                         |
| 1955 | 102                                | 117   | 88                          |
| 1960 | 89                                 | 128   | 70                          |
| 1965 | 104                                | 132   | 79                          |
| 1970 | 125                                | 147   | 85                          |
| 1974 | 119                                | 262   | 45                          |
| 1978 | 73                                 | 386   | 19                          |
| 1980 | 90                                 | 465   | 19                          |
| 1981 | 80                                 | 442   | 18                          |
| 1982 | 74                                 | 433   | 17                          |
| 1983 | 76                                 | 415   | 18                          |
| 1984 | 69                                 | 403   | 17                          |
| 1985 | 62                                 | 424   | 15                          |

Source: ECLAC (1986).

framework of GATT, the World Bank and the International Monetary Fund.

In 1976 UNCTAD approved the Integrated Programme for Commodities, which includes the negotiation of a series of agreements for a selected group of resources. The fundamental element in this Programme is the Common Fund, an instrument designed to cope with the financial needs arising from operation of the agreements. Producer and consumer countries were to participate in these agreements with a view to regulating the market in each resource. However, the lack of concrete results is causing new frustrations of the aspirations of the developing countries. The 1981 Cancun Conference produced a similar result; however, a proposal was submitted to this Conference by France, supported by Canada and Sweden, that the developed countries should discuss with the representatives of the Group of 77 a far-reaching allocation of resources and a technical co-operation plan; this proposal met with unyielding opposition from the United States and the United Kingdom which was shared for various reasons by Japan, the Federal Republic of Germany and the OPEC countries.

This situation of conflict has caused the leading industrialized countries to adopt a series of measures to minimize the use of mining resources which they do not have in their territories and reduce their vulnerability to possible interruptions of external supplies. In turn, the exporter countries, in order to cope with pressing balance-of-payments problems, have adopted different measures to maximize their earning from mining exports, including the establishment of voluntary production and export quotas in order to maintain or increase prices.

The United States Government is concerned about the high level of dependence of United States industry on imports of certain mining products such as antimony (51% of its requirements), asbestos (80%), bauxite (94%), cobalt (91%), chrome (90%), tin (80%), manganese (98%), nickel (72%), silver (50%), potassium (68%), tungsten (52%), and zinc (67%); it has therefore proposed a series of measures of various kinds, including the following:

a) Increasing mining investment abroad with its own or joint programmes and projects, provided that they do not harm the country's

domestic mining interests. The main incentives are the reduction or elimination of double taxation, tariff reductions and systems of international arbitration to resolve conflicts about nationalization or expropriation.

b) Developing trade relations with South Africa, Australia, Canada and Mexico, major suppliers of mining products to the United States.

c) Strengthening its naval power to protect the main shipping routes, especially those used for the transport of hydrocarbons.

d) Embodying in concrete actions the concept of the three-ocean alliance (a grouping of the NATO countries with South Africa, Saudi Arabia, Australia, Brazil, Egypt, Indonesia, Mexico, Nigeria, Singapore and Zaire). This alliance would deliver not only greater military and economic strength but also a greater concentration of scientific knowledge and supplies and reserves of petroleum and the principal minerals.

The European Economic Community also depends to a high degree on mineral imports. It obtains 20% of its needs from its own resources, 40% from other developed countries and 40% from developing countries. Its import needs for the main products, as percentages of the total supply, are as follows: aluminium oxide 84%, antimony 91%, asbestos 82%, cobalt 100%, copper 67%, chrome 100%, tin 95%, iron 79%, manganese 99%, mercury 86%, molybdenum 100%, nickel 80%, gold 99%, silver 98%, lead 45%, phosphate rocks 99%, tungsten 77%, vanadium 100%, and zinc 52%. The Community does not seem to have any great possibility of increasing its self-sufficiency for it is the oldest consumption centre and has almost exhausted its resources. A high degree of dependence could be tolerable provided that the sources of supply are diversified; however, direct European investment has been stable for many years, but it has not reached the levels of the United States and Japan. In addition, this investment has been directed primarily towards other, politically more stable developed countries which themselves have high consumption rates. For these reasons the Commission of the Community has proposed a number of joint undertakings.

In 1975 the Commission submitted to the Council an analysis of the risks involved in Europe's high level of dependence on supplies of mineral raw materials from third-world countries, and it proposed the basic goals for the development of a Community policy in this area. These goals focus on long-term security of supply, the need to provide guarantees for mining investment abroad, price stabilization, the possibility of increasing the region's mining resources, and the achievement of economies of scale in the industrial processing of these raw materials.

In 1978 the Community organs decided to give priority to the mining sector and proposed a further series of joint measures also designed to encourage the exploration and production of Europe's own resources and facilitate access to mining resources from abroad. These measures include the implementation of a programme of several years' duration (1978-1981) for research and development of Europe's own resources.

The scope of this programme was subsequently extended to the period 1982-1985. Moreover, in January 1978 the Commission submitted to the Council a communication defining the modalities of the Community's investment operations in developing countries which basically covered the activities of European mining companies abroad: exploration and investment within the framework of a system for promotion and protection of such investment.

Up to the present, stages I, II and III of the Lomé Convention have been signed with 66 countries of Africa, the Caribbean and the Pacific (ACP countries) associated in the Convention. The STABEX system has been operated since the first Convention with the object of offsetting the effects of a sharp drop in the export earnings of the ACP countries by means of financial transfers from the European Development Fund (EDF) which are suspended when the original situations are restored. Iron ore is included in this system. SYSMIN is the arrangement for other minerals which was established in the Lomé II Convention. It offers the ACP countries the essential minimum protection needed to maintain and develop their export capacity in the event of natural disasters, serious political upheavals or price reductions. This system covers exports of copper and cobalt from Zam-

bia, Zaire and Papua New Guinea, phosphates from Togo and Senegal, manganese from Gabon, bauxite and aluminium from Guinea, Jamaica, Suriname and Guyana, tin from Rwanda and pyrites and iron from Mauritania and Liberia. With a view to developing the mining potential of the ACP countries, the European Investment Bank (EIB) furnishes the necessary technical and financial assistance by means of long-term loan agreements.

Japan is also largely dependent on external mineral supplies: antimony 100%, asbestos 99%, bauxite 100%, cobalt 100%, copper 87%, chrome 99%, tin 96%, iron 99%, manganese 97%, molybdenum 99%, nickel 100%, gold 94%, silver 73%, lead 75%, phosphate rocks 100%, tungsten 75%, vanadium 100%, and zinc 59%. In order to obtain regular supplies at the lowest possible cost, Japan has pursued a policy of diversification of its external sources, which are located mainly in the countries of the Pacific and Asia, in Australia and South America and occasionally in African countries. This policy has two main tools: long-term sales contracts associated with loans for mining equipment and joint ventures in projects or mining enterprises.

The USSR is the world's second producer of minerals after the United States; it has big reserves of non-energy minerals and plays an important role in trade, with its exports of minerals, metals and fuels accounting for 50% of the total value of its exports in 1979. However, in recent years there has been a considerable decline matched by an increase in the imports of the group of countries with centrally planned economies, especially of chrome, tin and lead. It is calculated that import needs for the main minerals account for the following percentages of the USSR's total demand: antimony 20%, bar-yta 50%, bauxite 50%, cobalt 43%, tin 11% and fluorite 47%.

To date the wish of the mineral-producing countries to control the market for their exports has met with very little success. The intention is to maintain or increase prices in the event of an excess of supply occurring in periods of low expansion of economic activity in the industrialized countries, to prevent any further deterioration in the terms of trade with the developed countries and to maximize foreign-exchange earnings to solve balance-of-payments prob-

lems. The most serious initiatives for combining the interests of the producer countries were the establishment of cartels (CIPEC, IBA) along the lines of OPEC: however, they have not operated with the expected effectiveness for various reasons such as deviation from the original objectives and lack of political affinity between their concepts and procedures.

Apart from the possibilities of forming oligopolies of producer countries, it must be remembered that the minerals market already has oligopolistic associations of transnational corporations showing a greater tendency for horizontal integration of an increasing number of minerals, including ones which can be substituted, in addition to associations which already involve the vertical integration of successive stages in the production and industrial processing of the various minerals. These corporations naturally serve their own interests, which in some cases and circumstances coincide with those of the producer countries; this might offer

opportunities for joint action, to protect prices for example, with subsequent determination of the distribution of the marginal income. In addition to this type of corporation, there are other international companies which market mineral raw materials and exercise differing degrees of influence and control in these markets. The world crisis has consolidated the importance of these companies and enhanced their profit-earning capacity. They have thus become dynamic agents in the marketing of minerals, and it would also be possible for the producer countries to enter into association with them, or set up their own organizations of this kind.

The trade policy of both importer and exporter countries could bring about a degree of stability in the minerals market, but this would not be sufficient to overcome the problems of the mining conflict which will continue to accentuate the economic prostration of the developing countries with its consequences of political and social instability.

## II

### The crisis and prospects of the international market

An economic crisis can generally be defined as a period of difficulties and costly changes in the structures of consumption, production and foreign trade which in turn express themselves as new values of the trends and parameters of the previous period. The model prevailing since the end of the Second World War based its dynamics on the rapid expansion of foreign trade with extensive exchange of manufactures among the industrialized economies of the North and the trading of manufactures for raw materials between the countries of the centre and those of the periphery. The main features of production were the dominance of mechanical methods and direct human control over production processes and the great gap of technology and capital accumulation between developed and developing countries. The mass consumption of

goods was also characterized by an earnings elasticity which was increasing for manufactures and decreasing for commodities.

Now that the crisis has been overcome, the world economy is faced with a very different situation in which protectionist practices are being imposed to help laggard industries and in which the front-line industries are dominated by the new technologies of robotization and programmed and automated controls and commands. These technologies reduce the direct demand for labour and the use coefficients of the main mining and energy resources per industrial unit produced. This new industrial structure is a response to the changes taking place in the levels and patterns of consumption, characterized in the developed countries by a high level of saturation with respect to durable manufactured goods

and by great earnings elasticity for services, especially those based on information technology and electronics.

Since the crisis therefore the world economy is offering even less favourable conditions for the developing countries. On the one hand, they will have to take up the challenge of obtaining sufficient resources to service their external debt and change their production and export structures. On the other hand, it will be difficult for them to obtain these resources solely by expanding their exports, for the widening of the gap of technology and capital accumulation will impede their exports of manufactures and erode their comparative advantages based on the greater relative availability of labour and mining and energy resources.

Accordingly, the adaptation of the developing countries to the new conditions of the world economy will depend initially on the decisions of the industrialized countries on the following basic points:

a) The nationalization of the external debt by the governments of the developed countries so that it can be renegotiated on concessionary terms with low interest rates and long repayment periods.

b) The transfer of technology in the industrial branches in which the developing countries are to specialize.

c) Complete openness to the exports of the developing countries on the basis of competition.

d) Favourable trade balances with the developing countries achieved by the granting of new lines of credit designed to speed up the formation of capital.

It must be admitted that at present there are no grounds for believing that the developed countries will wish to take these decisions. The developing countries will have to have a rethink about more independent systems based initially on the integration of each of the regional markets and subsequent development of interregional complementarity, which will have the hypothetical objective of formation of a macro-market of the South. As a second stage the developing countries will have to achieve a greater share in the macro-market of the North based on the combined trade dynamism achieved in the first stage, on accelerated technological

development and on an adequate concentration of capital goods. The productive structure will thus need a great adjustment capacity to enable it continually to modify its comparative advantages and exploit the benefits to be derived therefrom by means of constant analysis of the major differences in the situations and prospects of each of the industrialized countries. In current values the total exports of Latin America increased at an annual rate of around 20% in 1970-1980 and at less than 1% in 1980-1984. In this latter period the main increases were in exports to other developing countries and to the United States (8% and 6% a year respectively). In contrast, there was a decline in exports to other countries in the region (-3.3%) and to the EEC countries (2.1%). The annual rate for imports exceeded 21% in the first period and declined by more than 6% per year in the second period. The largest declines were in imports from other developing countries (hydrocarbons) and from Europe (EEC and EFTA) with annual rates of around 10%.

Latin America's foreign trade in minerals and metals developed along the same lines as total trade (tables 2 and 3). In the first period exports had an annual growth rate of around 14% but declined in the second period (-4.4% a year). Imports grew by almost 18% in the first period and declined (-8.4%) in the second.

Table 2

**LATIN AMERICA: DESTINATION  
OF EXPORTS OF MINERALS  
AND METALS**

(Percentages)

|                             | 1970 | 1980 | 1983 |
|-----------------------------|------|------|------|
| Latin America               | 6    | 12   | 8    |
| European Economic Community | 37   | 33   | 28   |
| Centrally planned economies | 5    | 6    | 7    |
| United States               | 30   | 18   | 21   |
| Japan                       | 11   | 7    | 9    |
| Other developed countries   | 8    | 9    | 9    |
| Other developing countries  | 1    | 6    | 10   |
| Unclassified                | 2    | 9    | 8    |

Source: United Nations (1984).

Minerals and metals had a smaller share in Latin America's total exports (18% in 1970, 11% in 1980 and 9% in 1983). The drop in the share of imports was smaller —11.8% and 7% in the years indicated.

One of the relevant points is the decline of all the developed countries as a market for consumption of Latin America's exports of minerals and metals as a result both of the downturn in the growth of exports to the developed countries, with the annual rates falling from 12% in 1970-1980 to -4.5% in 1980-1983, and of the more favourable volumes of exports to the developing countries, with values of around 32% for the first period and 9.5% for the second.

Table 3

**LATIN AMERICA: ORIGIN OF  
IMPORTS OF MINERALS  
AND METALS**

(Percentages)

|                             | 1970 | 1980 | 1983 |
|-----------------------------|------|------|------|
| Africa                      | 1    | 1    | 2    |
| Latin America               | 11   | 15   | 11   |
| Asia                        | 1    | 1    | 1    |
| Centrally planned economies | 5    | 4    | 7    |
| Developed market economies  | 81   | 76   | 76   |

Source: United Nations (1984).

While Latin America's exports to the United States increased in 1983-1984, its exports to other developed countries remained stationary or declined. However, faced with a growing trade deficit the United States stepped up its protectionist policy, with harmful consequences for mining products from Latin America, so that total exports of these products fell by around 2% in 1985, a trend which has continued during the first months of 1986.

Another cause of this downward trend can be found in the relative performance of the United States GDP as a proportion of the world product, declining from 38% in 1970 to below 28% in 1982. Forecasts made by various bodies indicate that the United States GDP will grow by 2 to 3.5% in the second half of this decade. It is

not easy to predict the economic performance of the United States owing to a variety of structural contradictions which have subjected it in recent years to a series of recessions. Nor should it be forgotten that the United States is developing from an economy of mass production of goods to one producing services, which account for almost 70% of GDP. It must be assumed therefore that the economy's growth now depends on human capital rather than on the accumulation of capital assets. However, between 1970 and 1983 gross investment in fixed assets increased by 60% while employment grew by only 36%.

It must also be remembered that services depend on the availability of the capital goods which generate them. It is clear that the development of both sectors must be closely linked, for if the United States loses its production base for capital goods, it will also lose its technological leadership in services.

This technological change will have both positive and negative effects on the consumption levels of the various minerals and metals. On the one hand, its rapid expansion promotes a certain group of the lightest mining products of the quality required by the new industries. On the other hand, there is less use of the traditional mining inputs per unit of industrial production, and new materials are being produced to take their place (such as optical fibre as a substitute for copper).

These processes give rise to new problems, such as whether it will be possible to maintain the coefficients between GDP growth and the industrial product and between this product and the use of the main mining products exported by Latin America. According to historical parameters, if the United States GDP increased by 2 to 3.5% a year, it is to be expected that its industrial product would increase by 4.5 to 6.7%. However, with the new parameters of the period 1970-1985, which indicate a greater relative growth of services than of industry, it would be more realistic to place the industrial sector's expansion rate in the range of 2.6 to 4.5%.

In addition to expanding at a slower relative rate, the structure of the industrial sector is undergoing important changes and greater dynamism is being acquired by the high-technology subsectors (aerospace, computers, electronic components, instruments, electrical

machinery and chemical products), while the share of the medium- and low-technology subsectors, such as metals and metal products, is declining. This situation is causing changes in the demand structure of minerals and metals, with a rapid expansion of light metals and a contraction of heavy metals, including Latin America's main export products.

In addition, new materials are being manufactured which form a new generation of substitutes for the traditional mining and metal products such as: the reinforced and high-resistance plastics obtained from polyester and fibres of glass, coal, boron, aluminium, silicon and silicon carbide; the metals and reinforced ceramics used in the strategic industries which require materials resistant to high temperatures;

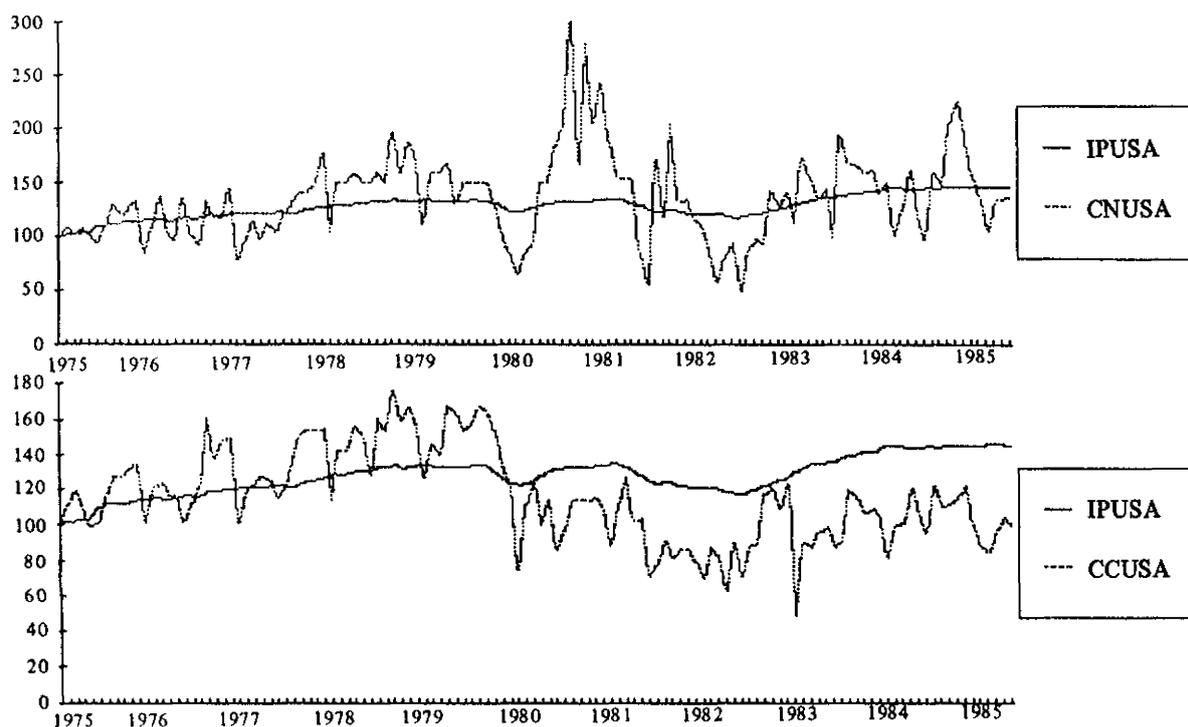
the products of titanium and its alloys with their resistance to corrosion and high temperatures, low expansion and low specific gravity; and the optical fibres which compete with conductor metals such as copper. Lastly, it must be remembered that this industrialization process is emerging in the shelter of various forms and practices of protectionism and controlled trade designed to protect basic industries and the subsectors of greatest technological backwardness.

These factors are affecting to different degrees the consumption patterns of the main metallic minerals exported by Latin America:

*Copper:* Figure I shows that the consumption index of copper (industrial use) in the United States was always higher than the industrial product index up to June 1980; from that date is

Figure I  
INDEXES OF INDUSTRIAL PRODUCT OF THE UNITED STATES (IPUSA)  
AND U.S. CONSUMPTION OF NICKEL (CNUSA) AND COPPER (CCUSA)

(Base: August 1975 = 100)



Source: United States Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, various issues. United States Department of the Interior, Bureau of Mines, *Minerals and Materials*, various issues.

has been lower. Given the new parameters and the expected growth of the industrial sector by annual rates of 2.6 to 4.5%, the consumption of copper should increase at annual rates of 2.1 to 2.9%, which means that it will take some 20 years to return to the maximum consumption levels achieved in March 1979.

*Nickel:* Up to October 1983 consumption maintained a close relationship with the industrial product, with technical coefficients higher than unity. Since November 1983 the coefficient has been negative and a future consumption decline of 6% a year can be expected, if the correlation does not decline so far as to invalidate the forecast. There was a decline in the correlation coefficient of other metals during the crisis (1980-1982) and it is assumed that this was

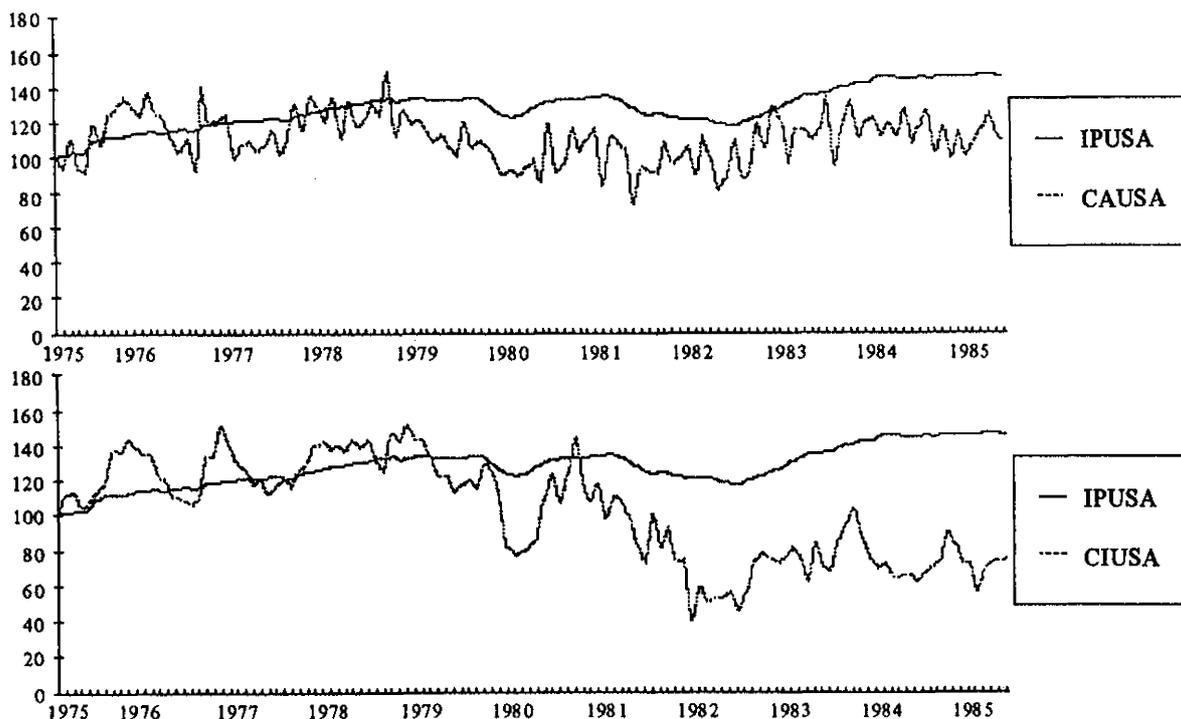
caused by the reconversion of the metal industries. Since then (1983-1985) these coefficients have climbed back, establishing new values for the parameters of the historical trend. In the case of nickel, reconversion seems to be lagging behind the other metal industries, so that the new trend will not be discernible for a few years.

*Aluminium:* The maximum consumption of aluminium was also achieved in March 1979. Since then the consumption index has been lower than the industrial index, establishing a new trend (figure II). With application of the new parameters, consumption may be expected to grow in coming years at annual rates in the order of 10%, which means that the March 1979 maximum will be achieved at the end of this decade.

Figure II

INDEXES OF INDUSTRIAL PRODUCT OF THE UNITED STATES (IPUSA) AND  
U.S. CONSUMPTION OF ALUMINIUM (CAUSA) AND IRON ORE (CIUSA)

(Base: August 1975 = 100)



Source: United States Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, various issues. United States Department of the Interior, Bureau of Mines, *Minerals and Materials*, various issues.

*Iron:* In terms of volume, iron is the mineral of greatest consumption in the United States. Maximum consumption amounted to some seven million tons in May 1979. The shift to the new consumption trend occurred in that same year and in December 1985 the volume was slightly above two million tons (figure II). Assuming a strong recovery in consumption levels at annual rates of 7%, the 1979 maximum will be achieved at the end of the century and only then will it be possible to make full use of the present production capacity.

*Lead:* The decline in lead consumption from 1976 reached its lowest point in November 1983 (figure III). According to the parameters of the new trend, lead consumption may continue to decline at annual rates of around 5%.

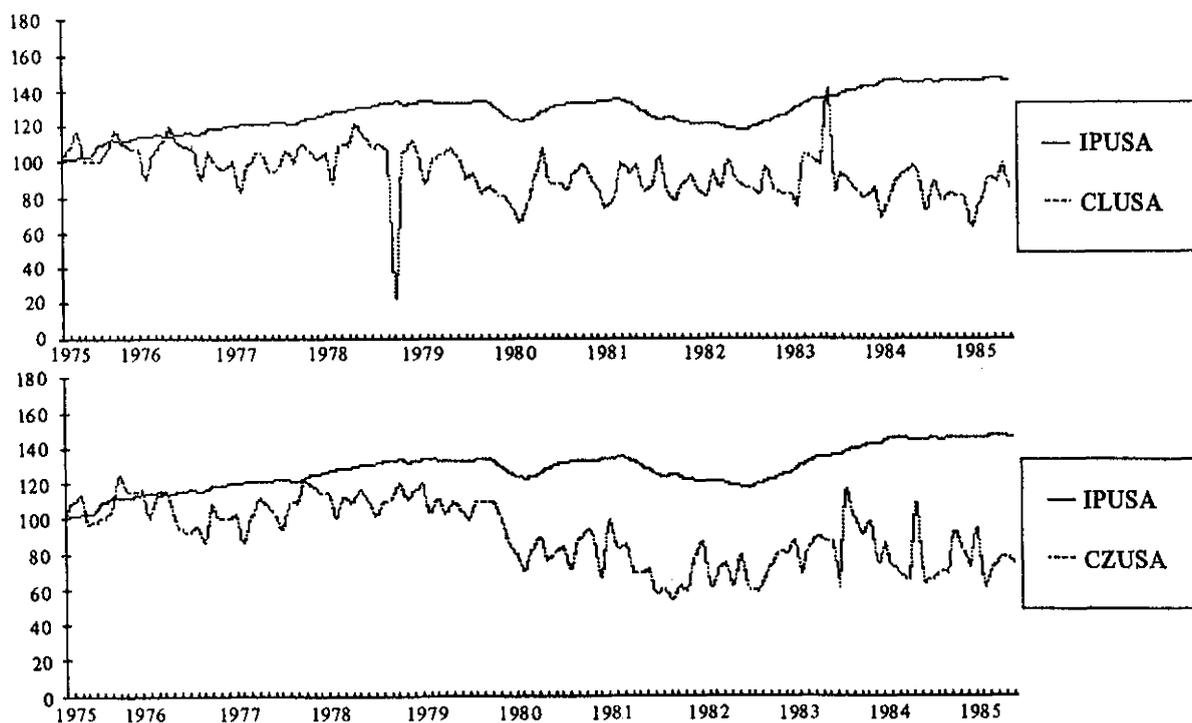
*Zinc:* Of the cases analysed, the zinc metal industry was the one which began its conversion most quickly. Maximum consumption occurred in March 1976 and the new trend set in at the end of that year. According to the new parameters, consumption in coming years may grow at annual rates of around 5%, requiring a decade to reach the 1976 maximum.

Changes in the consumption of minerals and metals has not been the only factor affecting the production decisions of the United States and the other developed countries. There have been other influences, such as for example the desire, following the oil crisis, to reduce dependence on imports of petroleum products through increases, not always profitable ones, in domestic production. Another consideration has been the

Figure III

**INDEXES OF INDUSTRIAL PRODUCT OF THE UNITED STATES (IPUSA)  
AND U.S. CONSUMPTION OF LEAD (CLUSA) AND ZINC (CZUSA)**

(Base: August 1975 = 100)



Source: United States Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, various issues. United States Department of the Interior, Bureau of Mines, *Minerals and Materials*, various issues.

relative shortage of each mineral. Since these are non-renewable resources, in principle this factor imposes a limit which at some point could become a restrictive or critical factor in mineral supplies. This topic of the limits of mineral resources has been dealt with in several reports which in one way or another seek to describe the world of the end of this century in terms of a series of parameters.

Taking the pessimistic assumption about natural resources, Leontief (1977) asserts that the group of developed countries will have critical production shortages in about 2000 for nickel, zinc and lead and that the group of countries with centrally planned economies will have shortages for these three minerals plus copper.

OECD (1979) calculated the mining resources which might be considered as reserves given large increases in their prices in the medium and long terms, noting that there was a general ratio of three to one between resources and reserves. However, by 2000 there would be critical world production problems for bismuth, mercury, lead, zinc, asbestos and silver.

The Carter Report (1980) concluded that the relatively short life-expectancy of certain materials does not mean that they will be exhausted in the immediate future, but that the reserves of at least half a dozen minerals —industrial diamonds, silver, mercury, zinc, sulphur and tungsten— will have to increase if production levels are to be maintained over the coming decades. In the light of these estimates, there would be areas or regions with a high level of supply and access for a number of mining resources which would be in a better position to exploit them on an integral basis and trade them to other regions which possess other resources, capital goods or technology. This theoretical division of world mining production would reduce the medium-term financial requirements for prospecting and exploration of mineral resources, except for those for which there are world shortages, such as lead and zinc. However, the developed countries have taken a number of initiatives designed to increase their self-sufficiency, including the following:

a) During the 1950s and 1960s the developing countries managed to obtain up to 60% of the resources used for mineral prospecting and exploration; in the following decade the situa-

tion was reversed, with 80% of these resources concentrated in the developed countries themselves, including Australia, Canada and South Africa. The United States was thus able to become one of the leaders in terms of reserves of important minerals such as asbestos, baryta, bismuth, cadmium, copper, fluorite, lithium, mercury, molybdenum, gold, silver, lead, rutile, selenium, tellurium, tungsten, zinc and zircon.

b) In the United States and other developed countries the secondary recovery of metals from scrap forms part of production. Scrap metal is accumulated quickly in these countries, which also account for 90% of international trade in this product. It is calculated that the secondary production of metals at present represents from 25% (zinc) to 50% (lead) of the total production of the developed countries and that by 2000 reserves of scrap metal could meet approximately 60% of world demand for the principal metals.

c) One of the factors determining the position and level of mineral supply and demand in the short term is the formation and use of stocks of these products for strategic, trade or regulatory purposes. The United States, France, Japan and the Federal Republic of Germany, which are heavily dependent on imports of several minerals, have established strategic reserves against the possibility of shortages, even though they have been used on various occasions for purposes of stabilization or even for commercial purposes when liquidity was needed or consumption estimates were exceeded.

d) Another factor which might affect the long-term supply of certain minerals is the exploitation of seabed nodules, which usually consist of a combination of manganese oxide (8 to 40%), cobalt (0.1 to 2%), nickel (0.2 to 2%) and copper (0.3 to 1.1%). It is estimated that these reserves would be greater than the reserves on land in the case of manganese, cobalt and nickel and that possible production in 2000 could meet 100% of the world demand for cobalt, 33% for manganese, 80% for nickel and 7% for copper.

The double effect of a slowly recovering consumption and the possibilities of increasing the supply itself does not offer a very rosy prospect for Latin America to expand strongly its exports of minerals and metals to the United States, not

even with a rapid recovery of the United States global economy, which in relative terms still absorbs more than 20% of Latin American exports of these products.

The countries of the European Economic Community are the main market for Latin America's mineral and metal exports; however, this share has also shown a constant decline (from 37% in 1970 to 28% in 1983). Although the Community's GDP growth rate during the period 1974-1982 was 70% lower than in 1950-1974, it has maintained a slightly increasing share of the world product. This development cannot therefore be one of the main factors determining the decline in mineral and metal imports from Latin America. In contrast, the ratio of GDP to metals consumption has fallen considerably (table 4).

Table 4

**OECD: EVOLUTION OF THE GDP  
MULTIPLIER WITH RESPECT TO  
CONSUMPTION OF METALS**

*(Annual growth rates)*

|                       | 1950-1974 | 1974-1982 |
|-----------------------|-----------|-----------|
| GDP                   | 6.2       | 1.7       |
| Aluminium consumption | 9.3       | -0.4      |
| Multiplier            | 1.5       | -0.2      |
| Copper consumption    | 3.8       | 0.6       |
| Multiplier            | 0.6       | 0.3       |
| Nickel consumption    | 6.3       | -2.9      |
| Multiplier            | 1.0       | -1.2      |

*Source:* Association of Geoscientists for International Development (1986).

According to the new parameters, the revival of the European economy will not entail a spontaneous recovery in the consumption of the principal metals, for the levels are out of phase not only because of the high degree of saturation but also as a result of changes in the production structure. At the end of the 1960s it was already apparent that growth rates were weakening in certain mineral and metal consuming sectors and were losing their relative importance in such

sectors as construction, iron and steel, metallurgy, electrical engineering and chemicals. This trend grew more intense from 1973 and spread to other sectors such as heavy machinery, engines, specialized machinery, machine tools and heavy electrical equipment.

Although it is still too early to assert that this group of countries is emerging from the crisis, there are signs that the day is not far off. These signs include the mastery of inflation, major works of scientific and technological research, and the new dynamics and direction of investment. Investment in fact —with an annual expansion rate of around 1.5% in 1970-1983— climbed to 5% in 1984-1985. This investment was intended primarily for the protection of domestic industry and for the immediate utilization of export opportunities. It was concentrated on the production of capital goods in the technologically more advanced industries which would bring greater independence to long-term development. This new process does not necessarily mean that the EEC market will remain one of the pillars of the future expansion of Latin America's mineral resources, for this expansion will depend instead on the following negative factors:

a) Technological progress in the exploration, extraction and processing of minerals will make it possible to exploit deposits which are ignored today or not exploited because of their present low profitability.

b) Submarine technology will make it possible to exploit the multimetal nodules of the seabed.

c) Nuclear fusion will not only provide all the energy needed at a suitable cost but will also open up the possibility of "distilling" rocks to obtain minerals.

The trade relations between Latin America and Japan grew steadily up to 1970 when Japan was taking 11% of Latin American mineral and metal exports, a share which fell to 7% in 1980 but rose again in 1983 (9%). The preliminary figures for 1984-1985 indicate a new drop in the share of the Japanese market. The growth in the first period was due to a degree of complementarity between the two economies and to the dynamism of Japanese investments in the region; this was not true of the irregular performance in the period 1970-1985, which cannot be attributed

either to the general performance of the Japanese economy, the continued expansion of which has enabled Japan gradually to increase its share of the world product.

These variations seem to have been caused not only by changes in consumption and production structures but also by Japan's international economic policy. A very important factor is the impressive technological development of the manufacturing sector in Japan, which has enabled it in a very short time to achieve the productivity levels of the United States and even to surpass them in such important sectors as iron and steel and metallurgy, electrical equipment, electronics and metal manufactures and machinery. This technological progress has brought about a considerable reduction in the mineral and metal inputs per unit of industrial production. Moreover, a large part of Japan's industrial production is for export, so that it has achieved greater flexibility and dynamism in the structural changes of its production without undergoing critical periods of reconversion and adjustment. Technological change has not only been introduced in the new industries but in the basic ones as well. By 1978 the iron and steel industry, for example, already had the following features: a high degree of vertical integration of production with important energy savings; automation and robotization of new plant, with savings in the direct labour employed in new activities; major increases in the production capacity of new plant, which also uses new processes; and reduction of production costs and greater competitive strength in the international market.

Japan's efficiency in international competition is attributed to the co-operation between the government, the financial system and the production enterprises to achieve predetermined targets and objectives; the careful selection of export industries, which are given preferential support in their development; the selection of homogeneous products which can penetrate different markets and make maximum use of economies of scale; the use of sophisticated production methods to maintain the reputation for quality and a proper evolution of prices and profitability; the programming and expansion of foreign investment to increase and utilize the trade surplus; and the great loyalty of the Japanese worker to his company, which prevents

strong wage pressures and major increases in production costs.

It is still uncertain whether the Japanese economy is capable of maintaining its economic supremacy over the coming decades in view of the progress of the other industrialized countries in adjusting their own production structures and of the external dependence of the Japanese economy.

Japan has very high rates of domestic saving and therefore considerable overinvestment in its domestic market consumption; it is therefore vitally important for Japan to place its exportable surpluses in the international market. It must be remembered that in 1985 under external pressure to revalue its currency Japan lost part of its export dynamism with consequent negative effects on its levels of industrial production. On the other hand, Japan's imports are not in proportion to its exports, for it produces everything it can with a view, *inter alia*, to maintaining its low levels of structural unemployment of the labour force. It therefore generates a large trade surplus which enables it to increase its foreign investments, especially to open up new markets for its exports, and this increases the dependence of its production on the international economy. In these circumstances it is not surprising that Japan should advocate a new international division of labour under which it would have to contribute to economic revival by endeavouring to behave responsibly in export trade, by adjusting its export structure, by producing goods and services with greater aggregate value, by diversifying its export markets, and by increasing its imports of manufactures and promoting technological development and economic co-operation (Hosono, 1985).

It is possible that Japan's first initiatives in this direction will be the formation and consolidation of a new process of international development with its highest points in Japan, China and the other recently industrialized Asian countries (towards a macro-market of the Pacific?) which are also directing their economies towards the international markets and have higher growth rates than the growth rates of world exports. Any attempt to consolidate relations with Japan will have to take account of the strong competition from this group of countries which could perhaps form a market of great purchasing

power for future Latin American mineral-based exports since, except in Japan, consumption of these products is still very far from saturation.

Despite the fall in the share of the GDP of the countries of the Council for Mutual Economic Assistance (CMEA) in the world product, their trade in minerals and metals with Latin America grew between 1970 and 1983 as its share in Latin American exports and imports rose from 5 to 7%. The lack of information makes it impossible to assess the changes taking place in the production structures of these countries; however, in December 1985 they approved a technological co-operation programme for the next 15 years in electronics, industrial automation, biotechnology, nuclear energy and manufacture of new materials. These countries have still not reached high saturation levels in their consumption of minerals and metals but, owing to the heavy indebtedness of both groups of countries and the consequent shortage of foreign exchange, the expansion of trade may have to be achieved through compensated trade or barter.

The share of the GDP of the other developing countries in the world product grew from 9 to 13% in 1970-1982; similarly, its share as a market for Latin American mineral and metal exports rose from 1 to 10% in 1970-1983. However, this expansion was due largely to the oil price increase, for the largest GDP growth rates occurred in the countries of the Middle East and North Africa. In any event there must be more systematic exploration of mechanisms to increase South-South complementarity. Priority might be given to the obstacles to increased trade, such as tariff barriers, customs procedures, export financing, means of transport and communication and other infrastructure works such as ports and storage facilities.

The mining crisis grew more acute in the subperiod 1980-1983, affecting the different products in different ways. While for 80% of them production showed decreasing or negative rates, the remaining group not only had positive rates but rates which in some cases were higher than in the previous period. To judge by recent developments, the medium-term prospects for the principal minerals may be as follows:

*Antimony:* As its use is affected by the ups and downs of the motor industry and housing construction, there was very low demand for

antimony in 1983, with a revival between January and May 1984 and a new downturn in June. The market was controlled primarily by South Africa, Bolivia and China. The price is expected to remain unchanged in the medium term. Japan has to import 100% of its needs, the European Economic Community 91%, the United States 51%, and the USSR 20%. The main suppliers in the region are Bolivia, Mexico and Peru.

*Bauxite-aluminium:* The prices of aluminium increased rapidly in 1978-1980 but fell again in 1981-1982. In 1983 the expansion of demand in the United States and Japan, in conjunction with production reductions, led to a decline in stocks and upward pressure on prices. However, the decline in prices during the first half of 1984 is leading to a new situation of overproduction of aluminium. Another reduction in stocks caused prices to rise in the first half of 1986 by 20% over the levels of the last quarter of 1985. Depending on how stocks and the historical consumption trends develop, the prices for aluminium and bauxite may be expected to show an upward trend in the medium term. However, since the profitability of aluminium depends essentially on energy costs and the price of the raw material, there may also be major pressures for bauxite prices to be held down, for they will be determined by the attitude of the main producers (Jamaica, Australia, Papua New Guinea and Suriname). Japan depends on imports of alumina for 31% of its consumption of aluminium and for 100% of bauxite. The import needs of the EEC countries represent 84% of their total consumption of alumina and 28% of aluminium. The corresponding figures are 94% for bauxite in the United States and 60% in the USSR. Given its large reserves, the region could expand its exports considerably, especially in the case of Brazil, Guyana, Jamaica and Suriname.

*Copper:* While the demand for aluminium increased in 1983, the demand for copper remained depressed, with a slight recovery in China as a result of an increase in consumption and stockpiling at the refineries which made it possible to keep prices at levels similar to those of 1982. The recovery between January and April 1984 was cancelled out by the falls in May and June. It is calculated that 1986 demand will decline by 3% over the 1985 levels; however, owing to various

problems, it is assumed that metal production will fall 10%, producing a price increase in 1987. In the medium term there will be a degree of price stability, but prices would rise if demand expanded, owing to supply inelasticity. This rise would be temporary, for marginal deposits would be brought back into production, leading to fresh overproduction. The EEC supplies 67% of its consumption from imports, Japan 87%, and the United States 5%. The region could supply part of this demand with exports from Chile, Mexico, Peru and possibly Panama.

*Columbium:* The European Economic Community, the United States and Japan import all the mineral they need, part of which could be supplied from Brazilian production. An upward trend in prices will be maintained in the medium term.

*Tin:* The crisis has had a heavy effect on tin consumption, which declined between 1978 and 1983 at annual rates of 3%. Although production also declined at similar rates, there was a production surplus over these five years and a consequent increase in stocks. Nevertheless, owing to the regulatory action of the International Tin Council, since April 1984 prices have been in an upward trend which will apparently maintain itself until the end of 1986 as a result of an excess of consumption over production calculated at 15 000 tons. Commercial stocks in the hands of the producers and the International Tin Council are in excess of 80 000 tons, and to them must be added the strategic reserves of the General Services Administration (GSA) of the United States, which are estimated at over 167 000 tons. During the first half of 1986 prices fell by 50% following the collapse of the bufferstock operations of the International Tin Council. It is not easy to determine the short-term movement of the prices of this metal, since the bufferstocks are now in the hands of the creditors (banks and marketing companies) and could therefore be placed on the market at any moment. Furthermore, the price fall has led to the closure of an important group of production companies in Bolivia, the United Kingdom and Thailand, and to reduced production in Brazil. In the medium term it is thought that prices will decline. Japan supplies 96% of its consumption from imports, the EEC 95%, the United States 80%, and the USSR 11%. The region's main exporters are Bolivia and Brazil.

*Fluorite:* The downward movement of demand and prices continued in 1983, although they may recover by the end of 1986 and show no great variation in the medium term, for the United States depends on imports for 85% of its supplies, the EEC for 18%, Japan for 100%, and the USSR for 47%. The region's main exporter is Mexico, but Argentina and Brazil also have some reserves.

*Iron-steel:* In the 1970s and in the first years of the 1980s the price of iron ore was subject to large fluctuations. In 1983 demand fell by 4% and prices by more than 11%; however, there was a large increase in supply. It is thought that during 1986 prices will continue their downward trend and will recover only in 1987-1988. From this date they are expected to remain constant until the mid-1990s. Japan supplies 99% of its consumption from imports, the EEC 79%, and the United States 28%. Latin America has the potential to increase its exports with production from Bolivia, Brazil and Cuba.

*Lithium:* Although demand showed no great fluctuations, prices rose 5% in 1983. Chinese exports increased while those of the USSR declined. The new uses of lithium, especially in electronics, medicine and photography, give grounds for predicting an upward price trend in the medium term. Latin America could increase its exports from Brazilian and Chilean production.

*Magnesium:* The production of metallic magnesium increased by 8% in 1983 and demand by 10%; the difference was made up by secondary production and reduction of producers' stocks. Prices are expected to rise in the medium term. Brazil is operating at somewhat less than 20% of capacity and its production and exports could therefore be increased rapidly.

*Molybdenum:* Consumption was 35% lower in 1983 than in 1979 and prices therefore showed sharp declines. The cutback in production prompted a brief price recovery in 1983, but the large stockpiles again depressed prices in mid-1984. Low prices are therefore to be expected in both short and medium terms. The European Economic Community and Japan depend 100% and 99% respectively on imports of this mineral. The region could increase its exports, mainly with production from Chile, Mexico and Peru.

*Nickel:* After three years of depression demand rose by 10% in 1983 and by a similar

amount in 1984. The gap between demand and production was met from a reduction of stocks which still allowed prices to recover. In 1985 demand and production fell, by 10.5 and 5.6% respectively, leading to a fresh increase in stocks and a price drop. In the first half of 1986 there have been no signs of recovery in demand or production, so that prices are again falling. Nevertheless, prices are expected to remain stable in the medium term. Import needs —80% for the EEC and 72% for the United States— could be met partly from the reserves of Brazil, Colombia, Cuba and the Dominican Republic.

*Phosphate rocks:* In recent years prices showed an upward trend until 1981 when demand stagnated, and production fell until 1983 when demand increased by 12%, production by 9% and international trade by 6%. The increased demand will not keep the installed capacity fully occupied in the next few years, and the prices of this mineral are therefore expected to be stable in the medium term. Import needs (100% for Japan and 99% for the EEC) could be met partly from the reserves of Brazil, Mexico and Peru.

*Selenium:* After several years of overproduction and low prices, the 29% increase in demand in 1983 enabled prices to recover and they will apparently continue to move upwards in the short and medium terms. Import needs (100% for the EEC and 49% for the United States) could be supplied largely from the reserves of Chile, Mexico and Peru.

*Tantalum:* The market had been depressed since 1980, but the 13% increase in demand in 1973 reduced stocks and improved prices. A

demand increase is expected in the medium term, but the production of the main exporters (Malaysia and Thailand) will be held back by the lower production of the co-product, tin. An upward trend in prices is therefore forecast for the medium term. The large demand for imports in the United States (91%), the EEC (100%), and Japan (100%) could be satisfied partly by Argentina but mainly by Brazil.

*Tellurium:* Both demand and prices fell by around 10% in 1983. However, because of its many applications, tellurium is expected to show an upward trend in the medium term. The region's exports come mainly from Peru.

*Titanium (ilmenite and rutile):* Although demand fell by almost 6% in 1983, it is expected to increase in the medium term at annual rates of 5%. The stabilization of prices in the first half of 1984 encourages the expectation that they will be stable in the short and medium terms. Brazil's reserves could meet part of the import demand of the European Community (100%), Japan (100%), and the United States (43%).

*Vanadium:* 1983 consumption levels fell to something like those of 1963, and the situation was made worse by China's export surplus. However, a price recovery began in the last months of 1983. Owing to the extensive use of this mineral by aeronaval industries, the recovery of demand and prices is expected to grow stronger in the medium term. The import demand of Japan and the EEC (100%) and the United States (42%) could be met in part with supplies from Chile and Venezuela.

### III

## Prospects of the regional market

### 1. *The bases for the expansion of the regional minerals and metals market*

If the consumption growth rates of recent decades are maintained in Latin America, it is to be expected that by the end of the century there will be a considerable increase in the region's relative importance as an international demand centre

for minerals and metals. Present imports of minerals, metallurgical products and mineral-based industrial products account for approximately 40% of the region's total imports, and this really does make it possible to achieve rapid substitution of these imports at the regional level. Given the potential of its mining resources, Latin America could produce sufficient sur-

pluses for export not only to maintain its relative share of the international market but also to increase it, for it has competitive advantages in terms of the quality of its mineral deposits, provided that there is a considerable recovery in world demand.

The effects of the crisis on Latin America's mining production is largely the result of its effect on international demand, but the considerable contraction of domestic consumption has also played a part. The annual growth rates of the region's consumption of the main export metallic minerals of Latin America ranged from 2.4% for tin to 11.5% for bauxite in the period 1950-1960. In 1960-1980 the range was from 3.3% for iron to 15.1% for nickel, and in 1980-1983 from -13.3% for copper to -19.9% for iron.

In the period 1960-1980 the annual consumption growth rates for this group of minerals was double the region's corresponding mining production rates in almost all cases, ranging at the upper levels between 50% for iron and 277% for zinc. However, in 1980 the proportion of production for regional consumption varied from 15% for bauxite to 76% for lead. If the gap between the production and consumption growth rates is maintained, it is estimated that by 2000 the majority of Latin America's mineral production could be for the region's own consumption.

Since mineral consumption depends to a large extent on industrial expansion, a more detailed analysis of this consumption will have to include the technical relationships between the two sectors by mining product.

Between 1960 and 1974 Latin America's annual rate of industrial growth was approximately 7%, while the growth rate of mining production was 3.3%. A close correlation ( $R^2=0.78$ ) was generally maintained between the two rates in this period. From 1974 to 1980 this correlation was  $R^2=0.94$  but inversely, for while the industrial sector had a slower rate of expansion, the mining sector increased its growth rate (12.8%), possibly owing to an improvement in its negotiating capacity in the international market, which may indicate that the surplus of mining production in this period had an adequate foreign outlet.

*Copper:* The region's consumption of copper increased at annual rates of 7.3, 7.9 and

-13.3% in the periods 1965-1974, 1974-1980 and 1980-1983; the corresponding rates for production were 3.8, 2.8 and -3.6% with a high correlation coefficient ( $R^2=0.86$ ). It would be true to say that for every 1% increase in copper production, consumption increased at rates of between 2 and 4%.

*Tin:* The regional consumption increased by 4.1 and -3.1% a year in 1965-1980 and 1980-1983; the corresponding production rates were 2.0 and 0.9%. Since the correlation coefficient between consumption and production is relatively high ( $R^2=0.64$ ) it is to be expected that for every 2% increase in consumption, production increases by around 1%.

*Iron:* In the period 1965-1974 the region's consumption and production growth rates for iron ore were 7.4 and 11.7% respectively. In 1974-1980 they fell to 2.8% for consumption and -4.7% for production; in 1980-1982 consumption was 19.9% and production 8.2%. With a correlation coefficient of  $R^2=0.64$  it is to be expected that for every 2% increase in consumption, production increases by around 1%.

*Nickel:* Nickel consumption and production in the region are in a downward trend, for the annual consumption growth rates declined from 20.9% in 1965-1974 to zero in 1980-1983, while the production growth rates fell from 11.3 to -4.1%. With a high correlation coefficient ( $R^2=0.87$ ) it is reasonable to expect that for every 2 to 4% increase in consumption, production increases by around 1%.

*Lead:* The regional consumption of lead is also in a downward trend, with annual rates of 6.9% in 1965-1974, 1.7% in 1974-1980, and 8.1% in 1980-1982; the production rates were 2.5, 4.6 and 9.8%, with a very low correlation between production and consumption ( $R^2=0.17$ ).

*Zinc:* The region's consumption and production showed a downward trend with negative rates in the period 1980-1983. The high correlation coefficient ( $R^2=0.92$ ) means that every 1% increase in production should be followed by a 3% increase in consumption.

Latin America's share in world consumption of minerals in the period 1980-1981 was very uneven, ranging from 0.2% for tellurium to 23.6% for platinum. Per capita consumption ranged from 2% for uranium to 84% for manga-

nese as proportions of the per capita consumption levels of the developed countries in 1980.

The possible levels of per capita consumption of minerals in Latin America by 2000 has been calculated on the basis of the following assumptions: a) consumption will increase by 50% over its 1980 levels for the products which in the base year (1980) accounted for 15% of the per capita consumption of the developed countries; by 75% for the products which represented between 16 and 50%; by 100% for the products in the 51 to 75% range; and by 100% for the products which represented more than 75% in the base year; b) proportionate adjustments have been made in the cases in which world consumption exceeded estimated reserves for 1983; and c) total consumption was estimated on the basis of an annual rate of population growth in Latin America of around 2.4%

On these assumptions, the annual growth rates of per capita minerals consumption in Latin America by 2000 would be as follows:

| Minerals                         | Growth rates                              |
|----------------------------------|---|
| Traditional non-ferrous metallic | 0.05% (tin) to 2% (copper)                |
| Traditional ferrous metallic     | 0.02% (vanadium) to 14.7% (tungsten)      |
| Alloys and refined               | 1.1% (asbestos) to 2.1% (fluorite)        |
| For electrical use               | 0.3% (tellurium) to 7.8% (cadmium)        |
| For chemical use                 | 1.3% (bismuth) to 57.0% (phosphate rocks) |
| Light metals                     | 0.3% (rutile) to 82% (bauxite-aluminium)  |
| Precious metals                  | 0.2% (platinum) to 2.3% (silver)          |
| Radioactive metals               | Uranium (0.03%)                           |

It must be remembered that consumption refers to the industrial use of minerals and metals (intermediate consumption) and not to final consumption which also includes the minerals and metals found in the net imports of manufactured, semifinished and final-use products. Furthermore, a large part of the regional effort should be concentrated on production, with a view to substitution of imports from outside the region which in 1982 totalled more than US\$ 46 000 million (tables 5, 6 and 7).

If the forecasts of consumption and export substitution prove correct, mining production will have an annual growth rate of about 4% up to 2000. Consumption, which at present amounts to about 20% of production, will amount to 75% in that year.

Table 5

### LATIN AMERICA: IMPORTS FROM OUTSIDE THE REGION

(Thousands of millions of dollars)

|                           |             |
|---------------------------|-------------|
| Minerals and concentrates | 0.6         |
| Metals                    | 4.1         |
| Semi-finished products    | 1.4         |
| Final-use products        | 40.0        |
| <b>Total</b>              | <b>46.1</b> |

Source: ECLAC, Latin American Foreign Trade Data Bank (BADECEL).

Table 6

### LATIN AMERICA: SHARE OF IMPORTS

(Percentages)

| Country      | Minerals and concentrates | Metals      | Semi-finished | Total        |
|--------------|---------------------------|-------------|---------------|--------------|
| Argentina    | 0.5                       | 4.1         | 1.6           | 6.2          |
| Bolivia      | -                         | 0.5         | 0.2           | 0.7          |
| Brazil       | 3.1                       | 7.4         | 4.1           | 14.6         |
| Colombia     | 0.7                       | 5.6         | 1.7           | 8.0          |
| Costa Rica   | -                         | 0.5         | 0.2           | 0.7          |
| Chile        | 0.4                       | 0.9         | 1.1           | 2.4          |
| Ecuador      | 0.1                       | 1.8         | 0.7           | 2.6          |
| El Salvador  | 0.1                       | 0.3         | 0.2           | 0.6          |
| Guatemala    | -                         | 1.2         | 0.5           | 1.7          |
| Honduras     | -                         | 0.4         | 0.2           | 0.6          |
| Mexico       | 4.2                       | 17.9        | 6.0           | 28.1         |
| Nicaragua    | -                         | 0.5         | 0.2           | 0.7          |
| Paraguay     | -                         | 0.1         | 0.2           | 0.3          |
| Peru         | 0.2                       | 2.4         | 1.4           | 4.0          |
| Uruguay      | 0.1                       | 0.2         | 0.1           | 0.4          |
| Venezuela    | 0.8                       | 22.9        | 4.7           | 28.4         |
| <b>Total</b> | <b>10.2</b>               | <b>66.7</b> | <b>23.1</b>   | <b>100.0</b> |

Source: ECLAC, Latin American Foreign Trade Data Bank (BADECEL).

Table 7  
LATIN AMERICA: INTRA-REGIONAL  
TRADE IN 2000

(Percentages)

|                    | Exports      | Imports      |
|--------------------|--------------|--------------|
| Argentina          | 0.6          | 15.2         |
| Bolivia            | 12.3         | 2.0          |
| Brazil             | 10.6         | 10.9         |
| Chile              | 41.2         | 6.4          |
| Colombia           | 2.3          | 0.2          |
| Cuba               | 5.3          | 3.2          |
| Jamaica            | 6.7          | 0.7          |
| Mexico             | 0.7          | 19.1         |
| Peru               | 14.0         | 12.6         |
| Dominican Republic | 2.3          | 0.2          |
| Venezuela          | 0.3          | 9.4          |
| Other countries    | 3.7          | 20.1         |
| <b>Total</b>       | <b>100.0</b> | <b>100.0</b> |

Source: ECLAC (1985), table 24.

Table 8  
LATIN AMERICA: INCREASE IN  
RESERVES UP TO 2000 AND  
PROBABLE INVESTMENTS

|              | Required reserves<br>(thousands of tons) | Distribution of probable investments<br>(percentages) |
|--------------|--|---|
| Asbestos     | 7 700                                    | 8.1   |
| Baryta       | 33 400                                   | 1.9   |
| Cobalt       | 100                                      | 1.2   |
| Chrome       | 26 400                                   | 39.0  |
| Ilmenite     | 7 800                                    | 7.1   |
| Manganese    | 91 500                                   | 13.6  |
| Mercury      | 20                                       | 0.3   |
| Gold         | 3  | 20.1  |
| Silver       | 1  | 7.1   |
| Rutile       | 30                                       | 1.6   |
| <b>Total</b> |  | <b>100.0</b>  |

Source: ECLAC, (1985), table 24 in the statistical annex.

Given the ratios between consumption, production and reserves in the various regions of the world, Latin America could have relative advantages in and generate exportable surpluses of antimony, bismuth, cadmium, copper, tin, fluoride, iron, lithium, molybdenum, silver, selenium and zinc. These exports to countries outside the region would represent around 25% of production.

To achieve self-sufficiency in minerals as well as exportable surpluses, the region would have to increase the mineral reserves listed in table 8, with a probable investment of US\$ 30 000 to US\$ 35 000 million.

The total investment for the whole period is calculated at around US\$ 80 000 million for the phases of mining and extracting metallurgy; this financing could be provided by possible exportable surpluses, which could even generate a financial surplus equivalent to 95% of the investment. Table 9 shows the hypothetical dis-

Table 9  
LATIN AMERICA: HYPOTHETICAL  
DISTRIBUTION OF INVESTMENTS  
AND NET FLOWS OF FOREIGN  
EXCHANGE UP TO 2000

(Percentages)

| Country            | Distribution of total investments | Net flow of foreign exchange |
|--------------------|-----------------------------------|------------------------------|
| Argentina          | 1.3                               | (28.8)                       |
| Bolivia            | 5.3                               | 38.7                         |
| Brazil             | 46.7                              | 29.0                         |
| Chile              | 13.2                              | 93.0                         |
| Colombia           | 5.0                               | 0.1                          |
| Cuba               | 2.8                               | 9.5                          |
| Jamaica            | 1.4                               | 9.9                          |
| Mexico             | 14.0                              | (39.2)                       |
| Peru               | 7.0                               | 27.1                         |
| Dominican Republic | 1.0                               | 3.1                          |
| Venezuela          | 0.6                               | (10.1)                       |
| Other countries    | 1.7                               | (32.3)                       |
| <b>Total</b>       | <b>100.0</b>                      | <b>100.0</b>                 |

Source: ECLAC (1985), table 24.

tribution on the basis of the mineral reserves in the countries of the region.

However, the greater commitment with respect to investment and technology will have to be made in processing metallurgy and production of semifinished goods and final-use manufactures. To give an example of the order of magnitude, the per capita consumption of aluminium of the developed countries and Latin America was 13 kg and 1.6 kg respectively in 1980. If the forecast for 2000 is an increase in regional

consumption to 7.5 kg, total production would have to increase by 3.2 million tons, which would mean the construction of some 15 foundries, as well as processing plants for sheet metal, bars, pipes, sections and final-use products. Given the same assumptions, iron and steel production would have to increase from 20 million to 100 million tons in the period 1980-2000, which would mean an annual investment of some US\$ 10 000 million. The same is true for copper, nickel and the other minerals.

## IV

### The basic action lines

The challenge to the region to satisfy the growing needs of its domestic market and maintain its share of international supply in these products, will call for a technical, economic and financial effort of such magnitude that it can only be achieved through joint action by all the members of the mining, metallurgical and industrial sector. This action should be concentrated on joint activities, studies and projects, and this implies initiatives both from producer enterprises and service enterprises and institutions and from the bodies which formulate and implement mining industry policies in the countries of the region.

The Latin American countries have to cope with technological changes in a context of economic recession, foreign debt, shortage of capital equipment and cutbacks in public expenditure. The financial institutions are conservative in their analysis of projects for technological change, and institutions will have to be established to enable the region to cope with the problems and take advantage of the opportunities which arise in a world of changing needs and characteristics. The first steps have already been taken with the creation of the Latin American Mining Organization (OLAMI).<sup>1</sup> Owing to the lack of financial resources, OLAMI does not yet

have the permanent staff it needs to attain its goals, and the national co-ordination units are engaged in completing their various stages of organization. However, this institution could be used in Latin America by the mining and metallurgical sector as a forum for consultation and exchange of information and primarily as a coordinator of the basic operations which have to be carried out.

#### 1. *The diversification of mining production*

Over the past 10 years there has been a marked tendency for production to increase, but proper ratios between reserves and annual production have not been maintained owing to the large amount of risk capital involved in prospecting and exploration. The minimum acceptable is a ratio of 10 to 1, and even this would produce critical levels by 2000 in the case of 20 products. However, according to the analysis which has been made, if Latin America is to adapt the structure of its mining production to the changing conditions of regional and world demand, it is essential to redefine the strategic value of mining and metallurgical activities. Instead of the present concentration of production on a few widely produced minerals, an extremely diversified structure will have to be established, even though in the majority of cases the production volumes would be only small or average. To achieve this it will be necessary to initiate joint

<sup>1</sup>See in this issue the article by Michael Nelson entitled "Technology transfer in the mining sector: options for the Latin America Mining Organization (OLAMI)".

action to produce a more comprehensive picture of the region's mining potential and to organize production and marketing enterprises for the new minerals. A series of activities is therefore proposed for the establishment of a Latin American system of geological mining research and the formation and development of new enterprises with a view to diversification of Latin America's mining production structure.

a) *Latin American geological mining research system*

The volume and distribution of known mineral reserves, together with the facility of access to them, are the main physical factors determining the feasibility of expanding the region's productive base. Mineral reserves must be constantly re-evaluated, not only in the light of increased knowledge of the size of the deposits but also in terms of their economic value, which in turn depends directly on prices and inversely on production and marketing costs.

Knowledge of the region's mining potential is generally inadequate and only small portions of the territory have been intensively explored. The information is not all of the same quality and in some cases it is unreliable. The majority of the region's countries have basic geological maps; progress has also been made in identifying the main deposits and preparing metallogenic maps, although much hard work remains to be done to complete the preparation of such maps for the whole region.

The complexity of the problem means that resources and efforts must be concentrated on prospecting and exploration through joint regional initiatives; for this purpose it is proposed that a multigeological, multinational and multidisciplinary team should be set up at the regional level with the following main functions: preparation of common criteria and methodologies for classification of deposits; assembly of existing information or preparation of an inventory of the region's mineral reserves and resources, which should be constantly reassessed and updated; multiple-correlation analysis for the selection of goals and geographical areas in a priority programme of mineral prospecting and exploration; preparation of a priority regional programme of mineral prospecting and exploration; formation of binational or

subregional teams to carry out under the central team's co-ordination the activities of the regional prospecting and exploration programme; and generation of new research to produce metallogenic interpretations to promote further mineral prospecting and exploration operations.

It will also be necessary to carry out a regional mineral prospecting and exploration programme to identify the deposits of better quality and easier access, so as to minimize the risks for future investments; to identify the mineral-bearing provinces and districts; to determine production specialization by geographical area and prepare prefeasibility studies or projects on the geologically most promising possibilities.

The purpose of the establishment of regional consultancy and engineering enterprises specializing in mining projects would be to identify and determine the comparative advantages of the region's new mineral deposits; to determine the possible sources and forms of financing for the mining projects and the markets and forms of marketing of the new products; to design the machinery and equipment to be used in mining production and metallurgical operations in the light of the possibilities of the regional industry; to prepare feasibility projects for subsequent consideration by financing bodies; to define criteria and methodologies for the preparation of project descriptions and the formulation, evaluation and implementation of mining projects; and to advise and train the staff required for the various activities of business management and administration of technological processes.

b) *Formation of new enterprises*

As far as possible, the sector should encourage enterprises which base their operations on small high-quality deposits of valuable minerals, which can go into production relatively quickly with low capital requirements and which can use intermediate technologies capable of being produced in the region. Although application of this set of requirements will mean the elimination of a number of projects, it must be remembered that given the region's financial situation and the intense competition in the international market, projects which meet these requirements will be the only ones to guarantee any great benefit for the countries of the region.

The formation of intra-regional joint enterprises (State and private) would be justified in order to avoid competition among the region's enterprises; to reduce operating costs by economizing on certain inputs which would be duplicated if the enterprises worked independently; to reduce expenditure on various items not directly connected with production costs, such as staff training, research, publicity, marketing, purchasing and other administrative matters; to achieve production complementarity or integration of mining, metallurgical and industrial activities; and to encourage the mobilization of the regions' financial resources and share purchases.

One way of mobilizing the region's financial resources for mining projects is to spread investment possibilities as widely as possible among medium-sized or small enterprises; this can be done directly or through the stock markets or the banking system acting as trustees or guarantors of share issues. Tests of pilot plants have shown that such enterprises are economically viable, and manuals are being prepared which establish the methodologies for evaluating their feasibility. However, in practice their formation and development would require the assistance of various services, such as training, technical and administrative advice, subsidiary processes in the purchase, processing and marketing of the minerals and start-up loans.

Another important aspect is the adaptation of mining machinery and equipment to the production conditions and characteristics of small and medium-sized enterprises. Two solutions are available here: to design the machinery and equipment as a joint operation with the region's manufacturers which produce these goods; or to bring in enterprises from other countries of the region with a view to agreements on transfer of technology or mutual industrial assistance in a process of horizontal co-operation.

The sector's new investment needs represent a considerable challenge in the present situation of financial crisis resulting from the region's external debt. The multinational promotion bodies could help in this task through co-financing and other promotional operations. It must be remembered that direct investment can produce better conditions for the transfer of technology and penetration of difficult markets.

It would also be possible to use other sources of credit in the financial world, such as suppliers' credits, insurance funds and export credits, investment guarantees, advances from commercial intermediaries and pension funds.

In view of its financial situation Latin America must examine very carefully the inputs of foreign investment which may be considered necessary for the region. A first step would be to define the points of convergence of the interests of the regional enterprises with those of transnational corporations, with a view to establishing the conditions for stable relationships of mutual advantage. Furthermore, the participation of the governments of the region in these joint enterprises could reduce the political and economic risks of mining investment. Agreements could be established between the region's mining and metallurgical enterprises and transnational industrial enterprises, with a view to the manufacture in Latin America of semi-manufactures for the regional market. In view of the difficulties of finding venture capital, it is proposed that the State should participate jointly with financial bodies and mining enterprises in the formation of a pre-investment fund through purchases of shares which would be redeemable or could form part of the capital of profitable projects.

## *2. The vertical integration of production*

The mining controversy is characterized not only by divergences among the goals and interests of exporters and importers but also by the need to integrate mining activities with the activities of the metallurgical and final-use industries; this process is essential if the mining products are to reach the consumer.

In the first half of the century, the process was facilitated by transnational production companies holding mining concessions in the countries exporters of raw materials and possessing metallurgical and industrial plant in the countries producing manufactures. Although these activities were not integrated in a single country, the process was guaranteed by the concentration of the factors of production in the hands of the transnational production corporations.

The small share of the mineral-exporting countries in the profits from this production

process determined at a later stage their strong aspiration not only to exercise more fully their sovereign rights over their natural wealth but also to participate directly in the production process. The successive nationalization of mining enterprises led to the segmentation of the production process between mining-metallurgical producers located in the mineral-exporting countries and the producers of metallurgical and mineral-based manufactures in the importer countries. Furthermore, as the international market prices referred to metals, which are homogeneous products, and not to minerals, which are differentiated products, there was a clear need for marketing agents or intermediaries to "integrate" the mining product with the metallurgical and manufactured products.

The need to redirect the region's mineral production towards its own market implies the gradual achievement of higher levels of integration of mining, metallurgical and industrial activities, both for the substitution of exports from outside the region and for the new expansion of productive capacity and regional consumption. Generally speaking, this process is moving ahead in Latin America from the production of minerals and concentrates to the production of metal goods (foundries and refineries) which have the highest prices in the international market. However, a great investment effort must still be made if mining production is to be processed totally into production of smelted and refined metals (table 10).

There is also a wide gap between the production of smelted and refined metals and the demand from the capital goods and final-use industries, since they prefer to use intermediate or semi-finished goods such as sheets, bars, pipes, sections and wires.

A number of joint initiatives will have to be taken if this production process is to be integrated. Two of the basic obstacles to greater integration of activities are the minimum economic scale of production of each of the intermediate goods and the smallness of the national markets, where absorption levels are lower than production capacity. Measures concerning the free transit of these products should therefore be given highest priority.

With the technology developed in recent years it is possible to design plants which inte-

grate the production process from the extraction of the mineral to the production of iron and steel or semi-finished goods. These new forms of production mean a considerable saving on the costs of energy, transport and administration. The measures should be aimed at encouraging mining industry development on the basis of integrated plants.

Table 10

**LATIN AMERICA: INVESTMENTS  
REQUIRED FOR THE PROCESSING  
OF MINING PRODUCTION**

|            | Minerals<br>production<br>(thousands of<br>tons) 1983 | Production<br>requiring new<br>investments for<br>metal processing<br>(percentages) |
|------------|---|---|
| Bauxite-   |   |   |
| aluminium  | 17 000  | 64  |
| Copper     | 1 800   | 39  |
| Tin        | 41  | 40  |
| Iron-steel | 120 500   | 70  |
| Nickel     | 47  | 30  |
| Lead       | 470   | 19  |
| Zinc       | 1 044   | 58  |

Source: UNIDO (1984).

The region has various sectoral agreements, the implementation of which, directly or indirectly, could require mineral inputs, such as the sectoral industrial development programmes of the Cartagena Agreement (metal manufactures and machinery, petrochemicals, automotive, and iron and steel). Meetings should be convened with the industrial enterprises to which production has been assigned in order to discuss with them the possible associated forms in which the mineral and metallurgical inputs could be furnished.

In recent years the markets of the developed countries have been fairly successfully penetrated by metal-based final-use or semi-finished products from several developing countries, including for example special steels from Brazil. The greater integration of these activities would

invest the manufactured product with the comparative advantages of the region's rich mineral deposits. This proposal implies an integration procedure "from the top downwards", i.e., the first step would be to identify the manufactures with an assumed regional or international demand, and the joint production of the mineral inputs would be programmed at a later stage. In this way the integrated mining-industrial plants, with lower costs and production volumes, would be able to compete with the economies of scale of plants with larger production volumes, and they would have the additional advantages that small and medium-sized enterprises are more responsive to changes in demand and adapt more easily to technological innovations.

It is very likely that in the market of the future comparative advantages will no longer be determined by the relative supply of capital, labour and natural resources but rather by the mastery and application of scientific and technological knowledge. Diversification of production, reduction of costs and vertical integration have the common denominator that the strategic input for their attainment would be the adoption of suitable technological processes. Latin America already has in the mining and metallurgical sector a large stock of technological knowledge scattered among the various countries, organs and enterprises of the region: it should therefore give special priority to the operation of various mechanisms for the widespread dissemination of this knowledge. This includes, for example, the implementation of specific horizontal co-operation projects between enterprises and institutions of the region and the establishment of a permanent system for the exchange of information. The large financial and staffing requirements of technological research have prompted the OECD and CMEA countries to sign long-term agreements for the implementation of various technological research operations. Latin America should also give first priority to the formulation and implementation of integrated programmes of technological research. It should, for example, carry out studies to identify the training and staffing needs and the region's capacity to meet these needs; to determine the general characteristics of the region's supply and demand with respect to production processes and mining and metallurgical

machinery and equipment; and to determine the implications of the transfer of technology involved in direct foreign investments.

### *3. Intra-regional trade in mining products and inputs*

In the period 1970-1980 exports of minerals and metals from Latin America to the region itself grew at a higher annual rate (21.4%) than in the rest of the world (12.8%), so that Latin America's share in the total rose from 6.4 to 12.4%. There was a reversal in 1980-1983 when intra-regional trade in these products declined at annual rates of -17.5%, while trade with other regions fell by -2.8%, so that Latin America's share dropped from 12.4 to 8.0%. For the same reasons, its share of imports of minerals and metals from the region itself increased from 10.7% in 1970 to 14.6% in 1980, only to fall to 10.6% in 1983.

In order to overcome this low and declining share in intra-regional trade, joint action is required under the auspices of OLAMI in order to create a system with the basic objective of promoting gradual regional self-sufficiency in minerals, metallurgical products and mineral-based manufactures, a system which would perform the following main functions: identify and publicize new opportunities of intra-regional trade; publicize on an ongoing basis the mechanisms for exports promotion and compensated trade; co-operate in the establishment of trade complementarity agreements; promote the formation of processing and marketing companies or systems for the minerals produced by small and medium-sized enterprises; propose purchasing procedures for State bodies; encourage the organization of a Latin American exchange for the purchase and sale of metals; and study the comparative advantages of the various mining, metallurgical and industrial enterprises of the region in order to encourage their specialization.

With respect to compensation agreements, the modality of compensated trade could take different forms in transactions between enterprises. One form might be the barter of imports of similar value produced by one enterprise and needed by another. This might mean the immediate exchange of one commodity for another or the immediate delivery of one of them (for

example, machinery and equipment) for the future production of the other (for example, metallurgical products manufactured with the machinery and equipment received earlier). Another form of transaction would be the exchange of an input required by an importer enterprise (for example, mining machinery and equipment) for the whole of a group of commodities with high demand in the country of the exporter enterprise or in the international market. In this case the mining enterprise and the industrial enterprise have to act directly or through marketing intermediaries as purchasers and vendors respectively of the package of commodities which are exchanged for the machinery and equipment required by the mining enterprise.

Compensated trade procedures are already being used in the acquisition of capital goods from the United States and Europe in exchange for the 33 commodities which are today given future quotations, consisting of metals, petroleum and agricultural products. However, this trade flow would not be fully meeting the basic objectives of the compensation agreements, which in the case of Latin America are designed to achieve fuller utilization of the region's installed productive capacity, to revive intra-regional trade without substitution of the trade at present carried on through the traditional machinery, and to generate or economize on the region's foreign exchange.

It is clear that the enterprises and organs involved in the compensation agreements would have to obtain the necessary exemptions from the regulations concerning exchange controls, tariffs and taxes and other non-tariff restrictions. Another serious problem to be solved is the financing and guaranteeing of the export and import operations. In the case of companies in the ALADI countries these kinds of transaction are governed by the Agreement on Payments and Reciprocal Credit of the central banks. This Agreement establishes a multilateral mechanism for clearing the bilateral trade balances every four months; the Central Reserve Bank of Peru is the body responsible for the accounts. This agreement is supplemented by the Santo Domingo Agreement on financing of the system's deficits or extension of credit between central banks when transactions are completed in different periods. It must be remembered that

both the Payments Agreements and the Bilateral Credit have maximum limits. The need for financing beyond these limits and transactions outside ALADI and the region would require the establishment of another insurance and financing fund for mining, metallurgical and industrial products connected with these activities.

Accordingly, a system of trade and financial complementarity and the compensation agreements on mining, metallurgical and industrial activities could perform the following functions: processing of information on the supply of manufactures (machinery, equipment and inputs used by the mining and metallurgical sector) and distribution to possible purchasers; preparation and distribution of information on the supply of mining and metallurgical products; promotion of contracts for the sale of manufactures in exchange for mining and metallurgical products; processing of minerals at the request of the industrial enterprises, under processing contracts and through the sale or export of the mining and metallurgical products received by this business group through triangular trade transactions; integration of the production process of the region's existing plants or integration with those of other regions in order gradually to eliminate trade intermediaries through arrangements for partnerships of mining companies and metallurgical companies and of metallurgical companies and companies producing semi-finished or final-use goods; promotion of the purchase or import of the output of this integrated process; and formation and administration of an exports insurance system to guarantee and finance export-import transactions involving mining, metallurgical and industrial goods, adjusting any deficits that may be produced.

The majority of the countries of Latin America publish annual reports on their mining activities. However, they differ from country to country in terms of their application, scope and type of data. The specific features of these information systems prevent their homogenization over the whole region. There is a need therefore to systematize the sector's information and documentation and to standardize the statistics and relevant quality data. Regular information should also be furnished about forecasts, production capacity, demand movements and other market conditions to help the region's mining enterprises to make fairer agreements concer-

ning investment, production and marketing.

The information system should assemble the information in a data bank and arrange for its exchange and publication, initially covering the following points: preparation and constant updating of a directory of mining and metallurgical enterprises and related industries and institutions; publication of the balances of the products offered and required by mining and metallurgical enterprises and related industries; collection and exchange of information and the results of geological-mining correlations; collection of information for the formulation of integrated programmes of technological research; preparation and training of human resources and establishment of technological standards and procedures for mining and metallurgical production; permanent maintenance of an inventory of preinvestment or investment pro-

posals and projects; preparation and permanent updating of finance sources and institutions and preparation or publication of the corresponding procedural manuals; and exchange of information on the terms of investment contracts, business management, marketing and transfer of technology.

Lastly, consideration should be given to the possibility that one of the richest sources of proposals and initiatives for regional integration may be the governments, institutions and enterprises themselves, usually in the form of bilateral offers of technical and economic co-operation. It is to be hoped that, promoted and co-ordinated by OLAMI, horizontal co-operation projects will be generated and implemented on such a scale that they will become one of the main tools for the development of the region's mining resources.

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