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NOTES ON THE CRITICAL SITUATION OF THE LATIN AMERICAN CAPITAL GOODS INDUSTRY*

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* The views expressed in the document are those of the author and do not necessarily reflect the views of the Secretariat of UNIDO. Mention of the names of firms and commercial products does not imply endorsement by the United Nations Industrial Development Organization (UNIDO). This document has not been edited.

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A. The birth of a strategic sector

1. Exclusive dependence on imports for the supply of machinery and equipment makes it easier to keep abreast of technological change but subjects a country to the vicissitudes of foreign trade. Furthermore, in that case the technology is incorporated in the production apparatus without inducing the development of national capacity for its operation or a significant degree of access to command of that technology.

On the other hand, the local production of capital goods produces an internal effect on investment and obliges the country to advance constantly in the conscious use of the know-how incorporated.

The local manufacture of equipment makes it necessary to adapt the industrial profile by linking it closely to the activity of the user as well as to that of the national bodies that promote progress in the scientific and technological field. (Universities and research centres or the development departments of industry itself).

Although it cannot be claimed that a country with a medium-sized market would develop the manufacture of a very wide range of capital goods, it is always possible to make some progress in sectors of greater relative importance or of sufficient magnitude to justify and sustain an independent research effort. A good example of this is Finnish production of mining equipment, which is much larger in scale than the copper mining activity on which it was based.

2. The first stages of progress

Machinery manufacturing activities began in the Latin American countries on a modest scale as the result of specific sectoral demand.

In the early decades of the present century work was begun by enterprises that were little more than handicraft workshops; they served particular needs and in many cases developed over time into industrial complexes of notable size.

The demand for division boxes and spillway gates for irrigation in Mendoza Province was the origin of Industrias Pescarmona. The construction of small-sized sugar mills in the Sao Paulo region enabled Mario Dedini to lay the basis for the industrial complex that bears his

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NOTE: This document refers principally to capital goods manufactured to order. Although some of the problems mentioned also affect series manufactured equipment, this is not so in all cases. For purposes of simplification, references in the text to "capital goods" should always be understood to mean capital goods made to order.

name today. In Chile, the requirements of wine-growing led to the installation of bronze foundries, one of which became the Manufacturas de Cobre en Chile (MADECO) copper plant.

In the course of time, the process led to the establishment of activities that incorporated new technologies. The requirement for the installation of elevators in the rapidly growing city of Sao Paulo led to the establishment of the versatile Villares Group. Much later, shrimp production in Ecuador motivated the local production of high-volume and low-head water pumps, which are not required for other uses.

In many cases, the existence of relatively modest requirements, which were met by means of adequate and growing command of the specific problems involved, made it possible to build up large-scale enterprises.

It is worth mentioning these facts because the initial reference to the need to assimilate technology does not necessarily refer to a leap forward in the command of know-how but rather to a process that can be very gradual, especially if it is duly linked to the needs of the user.

Contrast the firm base of many of the enterprises that have grown up locally from almost handicraft beginnings with the precarious existence of so many that have been transplanted in order to satisfy a desire for industrialization that was not justified by local realities.

These facts are mentioned here in order to draw attention to the crisis that is being experienced by the capital goods industry in the region because they help the reader to appreciate the degree of similarity with the national economy of many enterprises that grew rapidly when the wave of technological change was strongly felt in the region.

3. Expansion and consolidation

In around the 1930s a policy of deliberate stimulation of import substitution began to be applied in a number of countries in the region.

This undertaking, based on various considerations, became necessary principally because of the reduction in demand for primary products resulting from the great world-wide recession, which, together with the consequent fall in prices, reduced the level of economic activity and in particular the capacity to import.

The Second World War limited even more the possibilities of meeting basic needs by means of external supplies, so that import substitution became almost a synonym for survival.

The national supply of industrial products was considered to be an indicator of progress, although sufficient attention was not yet devoted to the efficiency and quality level of the production activity in question.

Various instruments were used in industrial promotion policy and were generally applied indiscriminately. Among these, the following can be singled out:

3.1 Customs tariffs

Such levies, established historically in order to generate revenue for the State (and as such for a long time applied to the movement of merchandise even within a country) began to be used as a promotional instrument.

In order that the tariff might produce such an effect, it was necessary to operate with high rates, which were changed from case to case and, without this being very exceptional, led to the prohibition of imports - that is to say to an unlimited level of protection. Tariffs on industrial products were very widely used as a promotion tool. However, capital goods were generally exempt from the payment of import duty in order to facilitate the implementation of the projects of which they were to be the components.

That was the predominant approach in most small- and medium-sized countries until a few years ago, even when an import substitution policy generally prevailed. In the larger countries, the technological importance of the local production of machinery and equipment had been perceived earlier and substantial efforts were also made to stimulate their production.

Although almost all Latin American countries were applying similar promotion policies by the early 1960s, it was only in Brazil and Argentina that substantial progress had been made in the sector. Mexico achieved a comparable result somewhat later.

Owing to the tariff exemptions enjoyed by State investments and in general by major projects, it was necessary to use other instruments to stimulate progress in the sector.

3.2 Specific preferential treatment

Without altering the tariff, preferential mechanisms can be established for local production, for example, by the requirement of a minimum percentage of national content in purchases by the State. This protection procedure usually entails a high degree of preferential treatment and has been widely used under different types of arrangements, even covering all purchases (not only those by the State) in specific sectors, for example, the automobile industry.

3.3 Credit

Exclusive and subsidized lines of credit have been used to finance not only sales of national products but also the investments necessary to initiate them.

3.4 Pioneering purchases

To complete a very brief enumeration of the principal forms of promotion that have helped in the development of industry in the Latin American region, particularly the capital goods manufacturing industry, it is necessary to mention purchases intended exclusively for that purpose. This mechanism takes many forms but one conspicuous example is orders for capital goods of completely new types; Electrobrás used that mechanism to a considerable extent for the benefit of Brazilian manufactures.

4. The stage of expansion

In the period following the first oil "shock", the consequent ease of access to international credit combined with general permissiveness with regard to public sector expenditure had the effect that development policies produced a strong expansion of installed capacity, based on optimistic forecasts of demand and often carried out without considering only minimum cost solutions.

Although metal-working and engineering production began in a market that enjoyed only little protection, the later stages of consolidation and growth were stimulated through deliberate action by the State, which not only adopted a clearly protectionist attitude but was also the dominant development agent on the economic scene. Not only did State presence grow in the form of new enterprises that remained under government control but also existing activities were nationalized in a number of countries, as was the case with copper mining in Chile and the petroleum industry in Mexico and Venezuela.

The manufacture of capital goods achieved its highest volumes of production, if not yet maturity, in a protected market that was dominated by a single well-disposed purchaser with growing capacity.

These conditions helped to bring about a situation in which the sector expanded its production capacity and made technological progress; however, they also contributed to limiting the interest of the sector in the external market and possibly to reducing its aggressiveness in competition.

B. Elements of the regional crisis

1. In a relatively short space of time and almost simultaneously, a basic transformation occurred in many countries of the region. The State began to abandon or gave up its role of controlling the economy, being compelled to do so either by the force of circumstances or following new policy orientations.

2. Without wishing to comment on the merit or advantage of the motivations in any particular case, we shall include here what might be a rather condensed summary of the facts that led to what might be called a "compulsive situation" (that is to say, one that did not come about as the result of a policy choice based on theoretical analysis).

3. The phase of financial permissiveness mentioned above occurred in a period in which interest rates were low or even negative.

It was therefore easy, or at least possible, to continue servicing an excessively large external debt. The inevitable confrontation with reality occurred at a time when interest rates reached a cruelly positive level, even reaching historically unheard-of heights.

4. As a result of abnormally high interest rates, the weight of the external debt was felt not only in terms of its real magnitude but also through the more destructive effect of a sudden blow.

Traditional flows were reversed, leading to a drain of resources abroad.

5. Just as the magnitude of the external debt was suddenly seen as a crushing burden, so the fiscal deficit also acquired that character when not only its quantity but also the real cost of supporting it were perceived, at a time when one of the principal sources of revenue was disappearing.

6. The new circumstances necessitated an almost complete cutback in government investment.

Adopting a policy of at least temporary reduction of its level of expenditure, the State, and with it its enterprises, proceeded:

6.1 To suspend the start-up of new projects;

6.2 To reduce the rate of progress on work already begun;

6.3 To defer payment for work already completed and for goods actually delivered,

6.4 To make purchases abroad that had traditionally been made locally, in order to use the long-term sales financing facilities that were being offered by the industrialized countries and that constituted one of the few sources of funds still available;

6.5 To use those credits to purchase new goods instead of spending money on the maintenance of existing equipment, which had formerly been carried out by local enterprises.

7. In the effort to diminish the fiscal deficit, the State began to dispose of many of its enterprises by means of privatization programmes. It thus obtained fresh revenue and in some cases eliminated an important item of expenditure.

However, together with the publicly owned enterprises, a preferential customer for industry also disappeared. Private enterprise generally concludes package deals for purchases, considering the price and the payment conditions and not the effect of the purchase on national industry and its technological progress.

8. At the same time as the State was abandoning its role of protecting what was considered to be strategic industry (and for reasons that it is not intended to analyse here), all the countries began a process of opening up their economies. Although the intensity and speed of such action differed, its thrust was the same. The measures most generally adopted were:

8.1 A substantial reduction of tariff levels;

8.2 The elimination of the non-tariff barriers which had used to be the most effective protection for national industry and had even gone so far as the prohibition of imports;

8.3 The end of the compulsory "national purchasing" provisions;

8.4 The elimination of discriminatory treatment of foreign investment.

9. The reduction of government expenditure caused a decline in economic activity. Spontaneous issue of currency to cover the non-financed deficit accelerated the rate of inflation.

10. Measures to combat corrosive inflation led to a freezing of the tariffs and prices of public sector enterprises, to which budget allocations had already been reduced.

11. All the above-mentioned factors created in regional industry a new and particularly unfavourable environment for enterprises producing capital goods. Those enterprises were exposed simultaneously to a number of effects:

11.1 Their level of activity declined or the principal purchasers disappeared;

11.2 They ceased to obtain income when those customers discontinued not only their purchases but also payments for goods purchased earlier;

11.3 They had to devote a large part of their managerial capacity to arrangements for the possible collection of payments in a recessive environment accompanied by high inflation;

11.4 Their reduced national market was invaded by external suppliers backed by considerable financial support, which they themselves lacked. (And the prices of those suppliers were furthermore not strictly related to costs);

11.5 They had to face this competition without tariff protection and de facto preferential treatment even when conditions might appear to be equal;

11.6 They had to provide for their own financial needs, which were sometimes great as the result of investments made in the earlier expansion phase, in a situation in which money was dear, without having an appropriate level of activity or income;

11.7 They were forced, obviously, not to make investments in their own equipment and modernization, thus sliding to some extent into technological obsolescence.

12. This complex of circumstances has created a situation of serious and multifaceted crisis for the sector.

In order to evaluate the situation in a realistic manner, an analysis was made of the opinions expressed at the four assemblies of ALABIC between 1988 and 1991 by the industrialists who are members of the Association. At each of these meetings, one of the industrialists present commented on the economic situation in his country. This information revealed a progressive diminution of the activity of the capital goods manufacturing sector in practically all countries. The crisis was of such magnitude that in November 1991 the industry was using less than 50 per cent of its capacity (considering the region as a whole). The problems thus created for the managements of the enterprises have prevented them from giving due attention to the difficulties with which the profound change that is taking place at global level must necessarily confront them.

C. Elements of the world crisis The forthcoming challenge

1. So far an attempt has been made in this paper to sum up the process that has led to the dramatic situation affecting the regional industry for the production of machinery and equipment. Although brief mention has been made of the technological backwardness that could result for the sector if the situation were to continue, comments have been limited in general to the circumstances that have principally affected the region, without considering other factors of wider scope that are determined by inevitable world-wide restructuring.

2. This form of presentation was chosen because there is a specific crisis in the Latin American scene which is different from that found in the world as a whole and which is of such intensity that, with rare exceptions, it becomes impossible to take effective decisions at enterprise level to adapt to global change.

3. This does not in any way mean that it is possible in the region to ignore with impunity what is happening in the sector outside the region. What it is intended to stress is rather that at the present time the isolated industrial enterprise is not the best protagonist for the necessary decisions. The situation is so difficult that only collective efforts or actions coordinated between enterprises in a number of countries can it seems be potentially effective in finding specific solutions and above all in motivating governments.

4. The Latin American environment in matters related to economic policy is very unpropitious for such undertakings. However,

objective observation of the regional scene urges one to demonstrate the necessity of such action and to hope that the weight of the facts will help to bring the need for action into relief. With that intention, comments will be made below on the world situation that exists while we are in such a difficult position.

5. It is just as difficult to describe the challenge that awaits us as it is to give an account of the present crisis itself. In both cases it is necessary to outline multifaceted processes that all take place simultaneously, so that an explanation presented in an orderly sequence is always incorrect.

Having made that preliminary explanation, an account will be given in arbitrary order of the principal facts that can already be perceived and that we consider to be most significant in the new environment to which it will be necessary to adapt.

6. Each stage of an industrial crisis has historically been the result of a technological change. The one taking shape today is influenced by a number of technical changes, each of which can be expected to have many important consequences; unfortunately, even a the most cursory analysis shows how rather unfavourable they are for our region.

7. To begin with, let us consider changes in production processes. They occur in cascade form as a consequence of progress in two respects:

7.1 In the basic operation of the process itself, as a consequence of increasingly complete knowledge of its inherent nature;

7.2 In the efficiency and precision of the process thanks to the improvement of control and coordination systems.

Good examples of the first of these are the use of bacteriological leaching in copper mining and the direct reduction and continuous casting processes in the iron and steel industry.

The effect of the new electronic systems of measurement and control is much wider.

Both families of change mechanisms, particularly the second, have the subsidiary consequence of reducing the size of installations. Furthermore, modern control systems can almost always be applied in existing systems, which postpones the need to replace such equipment.

In the first instance the result is a negative one for the producers of raw materials and the manufacturers of heavy equipment, namely, a structural reduction of demand. (It is worth pointing out that such a local disadvantage can be compensated for as a whole by the more efficient operation of the production system and the availability of scarce resources over a longer period, which, however, does not eliminate the short-term difficulty).

8. Improved knowledge of processes and their control brings with it a transformation of the equipment used. A change in equipment is usually produced even as a result of minor adjustments. A conspicuous example is that of container ships, whose freight capacity with equal tonnage is of the order of 3.5 times greater than that of conventional vessels. (Although not within the strict field of capital goods, it should be pointed out, as a further example, that marketing through supermarkets, which basically derives from progress in packaging techniques, is considered to be the most significant of the factors that have increased the productivity of the Western economies in recent decades.)

9. In the case of products of the manufacturing process, transformations are related both to the articles themselves, which change in composition although they serve similar needs, and to the emergence of other new and essentially different products.

10. The range of materials from which the products are made is also growing and the characteristics of these materials change when they are used in combination.

11. As a result of innovations, many unheard-of situations arise that can radically reduce the value of an existing investment. In view of the progress in the recording of images and sound on magnetic tape, for example, it is justifiable to conjecture as to the future of the photographic industry. In view of the rapid pace of change, the investment approach is bound to become more cautious with regard to highly durable equipment.

12. The same tends to occur with investment in research and development, the results of which are becoming increasingly vulnerable in view of the emergence of alternatives that come on to the market at a more opportune time or are supported by a more powerful marketing system. In both cases, relative quality may be irrelevant, as is illustrated by the Betamax and VHS video tape formats.

The operation of the industry becomes increasingly risky as the entire system becomes more mobile and fluid. It is dangerous to have only a few cards if one wishes to take part in the game. The traditional manner of playing has been enterprise growth or mergers with other enterprises. In any case, the speed of the game brings keen competition in which timely and significant presence on the market is a synonym of survival.

14. At this point, we can return to our point of departure, namely, to recall the fact that the principal Latin American enterprises that produce machinery and equipment grew from almost handicraft beginnings. From a starting point which today seems like that of a rural activity, they progressed to a period of difficult and creditable expansion, though they did receive various types of support.

Today, they are submerged in a situation that is so critical that they can scarcely (if at all!) meet the challenges of the present and are only in few cases well prepared to meet the challenge of the near future.

15. The machine tools manufacturer has always had, and obviously still has, a strategic role to play. The extremely serious situation through which the capital goods manufacturing industry is passing makes it necessary to raise the question whether the Latin American region as a whole can afford to dismantle such an important industrial activity or allow it to be destroyed.

Not to react immediately and effectively is tantamount to forgoing the benefits of all kinds that would derive from the new wave of change, above all refusing to take a hand in defining the objectives pursued in the new historical stage and in the control and orientation of its effects.

16. In these tentative comments, reference has - always - been made to the Latin American region as if it were a homogeneous whole, which is obviously not the case.

Such a rather unrealistic assumption is justified for two reasons:

- Joint action would bring about an extraordinary increase in the capacity for manoeuvre and negotiation to a level superior to that of each country on its own, even of the larger countries. In that way it would be possible to transform present disadvantages into future opportunities;

- The concept of integration is the object of so many piecemeal efforts and of so many declarations that it is not overbold to think that, given a specific motivation, intentions could be translated into action.

These few brief notes may help to illustrate both types of action.

D. What could be done

1. The previous sections of this working paper have been intended to present the critical situation through which the regional industry for the manufacture of machinery and equipment is passing, to shed light on that situation by presenting the opinions of entrepreneurs in the sector, to stress its extremely serious nature and finally to indicate the new challenge that faces the sector through the growing pace of world-wide technological change.

2. As we do not advocate idle speculation, we shall try to outline here, always in very plain terms, some possible lines of action for entrepreneurs in the sector, for national agencies interested in its development and for international organizations, particularly ECLAC and UNIDO.

3. Financing. Although the major cause of the crisis is the decline in investment, the immediate problem for the industry lies in the fact that regional suppliers are being supplanted in meeting the reduced demand that still remains because plants in the advanced countries are offering more favourable conditions.

It is consequently an absolute priority to establish efficient mechanisms for the support of regional suppliers so as to place them on an equal footing.

The good results achieved by the Andean Reserve Fund and the Andean Development Corporation show that even countries with very limited resources can take effective concerted action in the financial field.

It is proposed that:

- Efforts should be made to bring about the establishment of a common fund that would use part of national reserves;
- The possibility should be explored of widening the Santo Domingo Agreement so that some long-term credit facilities would be available;

- The possibility should be analysed of using national currency for some proportion of these payments.

4. Though the regional market is seriously depressed, there is a relatively better level of activity in some zones or sectors, and the market as a whole still offers opportunities that have not been taken for reasons other than financial difficulties. It is worth while pinpointing three of these factors: lack of timely knowledge of demand, the absence of efforts at enterprise level to achieve complementarity, and lack of confidence in regional suppliers.

4.1 The first of these difficulties could be solved by the operation of the network of demand-oriented centres, which is being started up under the joint UNDP/ECLAC/ALABIC project. In this area it would not be amiss to promote new action, but persistent effort is indeed required to achieve a very difficult objective. The situation through which the sector is passing hinders participation by industry and makes it necessary to secure new support.

4.2 A more intense and operational relationship between enterprises, which is the chief justification for ALABIC's existence, has not been built up, with some exceptions. The countries in which demand is maintained at higher relative levels are not those in which the production of capital goods has made the greatest progress. That creates scope for complementarity that has not been used to the full, both because of inadequate contacts between enterprises and owing to the reluctance of the most advanced enterprises to give serious support to local suppliers. Renewed efforts are required in this respect and will probably be more easily made in the presence of specific opportunities that would be identified by the above-mentioned network.

4.3 Regional purchasers are not duly aware of the supply existing in the region. This lack of knowledge is related more to quality than to quantity and is reflected in a clear lack of confidence. On the other hand, the use of traditional sources of supply ensures that a possible accidental lapse will not be interpreted as the result of poor qualifications on the part of the seller.

In fact, through the combined effect of the two circumstances, regional suppliers encounter difficulties instead of receiving preferential treatment.

Changing this situation requires information and contacts and, in addition, persistence. It is possibly one of the most appropriate fields for joint action; a change of image can be stimulated cumulatively through the successes of one or other supplier.

Furthermore, regional industry does not make full use of certain elements that create a number of special advantages for suppliers. For example, there would be more rapid supply of spare parts and technical assistance for the mining equipment used in Chile if such equipment were manufactured in Argentina or Brazil rather than in Europe or Japan. In any case, an attempt would have to be made to ensure that this would in fact be the case, and furthermore that the fact would be widely known.

5. Although the regional industries have in most cases good contacts with many of their counterparts in third countries, the information gathered by the personnel of the joint project and by the secretariat of ALABIC leads to the conclusion that knowledge of Latin American industry in Europe, for example, is very far from adequate. Consequently, it is possible that idle installed capacity is failing to take advantage of opportunities for sub-contracting or coproduction that would result from a possible saturation of European suppliers in particular areas.

The information effort that must be made, which would receive valuable support through the catalogue that the joint project is preparing, would be facilitated if UNIDO, for example, could identify the areas in which European suppliers are in fact unable to cope with orders.

The crisis in the capital goods industry. Summary of the viewpoints of the entrepreneurs, 1988-1991

1. ARGENTINA

88- 1.1 The traditional level of investment used to be 20 per cent of GDP. Between 1983 and 1984, it fell to 17 per cent and in the years 1986-1987 to 11.5 per cent. (For Argentina it is estimated that the replacement level used to be 14 - 14.5 per cent, so that a lower figure signifies a disinvestment margin).

88- 1.2 Up to March 1988, credits were available at a rate of 1 per cent for the period of construction and 5 per cent for the post-shipment period. Both lines of support were discontinued and it was necessary to resort to commercial rates of more than 8 per cent in real terms.

88- 1.3 As a result, there were no new projects and there was no proper maintenance, not even in existing power stations. The railways had a fleet of 1,000 locomotives, of which only 350 were in working order.

89- 1.4 In 1989 a policy was launched for containing inflation, principally through a reduction in public sector expenditure. The package of measures was painful but, being supported by 75 per cent of Argentinians, it had the effect that inflation, which had been 220 per cent in July 1989, fell to 37 per cent in August. A rate of 7-8 per cent was expected for September of that year.

89- 1.5 The new policy eliminated the complex system of benefits, subsidies and tax exemptions, measures and countermeasures that had prevented a clear perception of costs and efficiency. The "Buy

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NOTE: At each of the annual assemblies of ALABIC, a representative of each country presented comments on the situation. Although these comments were informal, they have the accuracy that is derived from direct experience. This annex, which is intended to exemplify the crisis situation of the sector, contains the most salient points of the statements made between 1988 and 1991.

Argentinian" provisions were withdrawn, but the State undertook to pay the duty.

89- 1.6 Agriculture and petroleum were considered to be the pillars of development. Both sectors were now liberalized: each enterprise was able to dispose of the petroleum that it extracted, paying only a royalty.

89- 1.7 Meanwhile, (October 1989) there had been a dramatic decline in economic activity.

- Construction was working at 5 per cent of capacity;
- A major PVC plant was delivering only 7 tons per month instead of 400 tons;
- The principal asbestos-cement factory was completely paralysed;
- The metallurgical industry had been employing 500,000 persons in 1975; in October 1989, the official figure (overestimated for reasons that will not be gone into here) was 175,000.

89- 1.8 Gross investment (which had fallen to 11.5 per cent in 1988) was estimated at 9-10 per cent (October 1989).

89- 1.9 Export credits (which had already become so expensive as to be almost useless) were completely discontinued.

89- 1.10 The situation of the public sector enterprises that were to be privatized was in complete disorder as the result of years of mismanagement.

89- 1.11 Some metal-working and engineering enterprises had succeeded in supporting themselves by carrying out maintenance work on thermal power stations, 40 per cent of which were at the end of their useful life.

90- 1.12 In the fourth quarter of 1990, inflation continued to fall (7.7 per cent in October, 6.2 per cent in November, 4.7 per cent in December) and the suffering caused by hyperinflation was so great that extreme measures were tolerated. The population supported stability at any price.

90- 1.13 A cashier's approach was taken in handling the resources of the State. What money there was was paid. The State did not pay its suppliers. There were no new public works worth mentioning. Maintenance work was suspended.

90- 1.14 The principal purchaser of capital goods had disappeared from the scene; in addition, payment was not made for earlier purchases; there was no demand or any desire to place orders.

90- 1.15 The telephones, the principal airline and other enterprises had been privatized, but three to four years would elapse before they would begin to make purchases.

90- 1.16 The domestic customer had disappeared from the scene and overvaluation prevented meeting orders from external customers.

91- 1.17 In November 1991, the situation was still bad. However, the firm measures taken since the middle of 1989 gave hope that the situation would be reversed. The administrative reform of the State had reduced expenditure (120,000 public sector posts had been abolished) and better tax control had increased revenue.

91- 1.18 The privatization process had continued (road network, TV stations, petroleum plants) and it was claimed that the greater part of the energy sector and some 30 enterprises depending on the armed forces would pass into private hands within the year.

91- 1.19 An important measure was the fixing of the conversion rate for the austral and the dismantling of the indexing system. The cumulative inflation rate over seven months was only 15 per cent, and less than 1 per cent was expected in November (1991). That had been achieved without price control.

2. BOLIVIA

89- 2.1 Hyperinflation had raised the exchange rate from 25 to 2,700,000 pesos to the dollar.

89- 2.2 A spectacular recovery had been achieved between 1985 and 1989 with regard to inflation. The cost had been a very severe recession. The surviving industry was working at about 30 per cent of capacity (October 1989).

89- 2.3 The stabilization formula included a 2 per cent tax on property.

89- 2.4 The real rate of interest reached 22 per cent (October 1989). There was a single level of customs duty at 17 per cent. A tax of 25 per cent was levied on gasoline.

89- 2.5 Business operations were now liberalized. The country had become aware that rigidity was counterproductive.

90- 2.6 National industry had a 10-point preference in public tenders. But there were hardly any tenders. No reactivation was perceived (October 1990).

90- 2.7 There were prospects of investment in gas-fired thermal electricity generating plants and petrochemical installations in Puerto Suárez.

90- 2.8 There had been some reactivation of demand for nationally produced consumer goods because Argentinian and Brazilian goods were expensive, for monetary reasons; no supplies were forthcoming from Peru.

3. BRAZIL (1988-1991)

88- 3.1 The capital goods industry was suffering from a long recessive process that had begun in the early 1980s.

Gross fixed capital formation, which had ranged from 20 to 25 per cent, had fallen to levels of 14.5 to 16 per cent of GDP (October 1988).

88- 3.2 The high level of indebtedness had made necessary the practical suspension of public sector purchases, which used to represent 70 per cent of demand for goods made to order.

88- 3.3 One of the fruitless efforts to combat inflation was a minor readjustment in the rates charged by public sector enterprises. As a result, investments were held back; there was a grave danger that there would in the near future be a serious breakdown in the supply of electricity (for example).

88- 3.4 The only significant investment was in the private sector, principally in pulp and paper and petrochemicals.

88- 3.5 Inflation, with a rate of the order of 25 per cent per month, constituted a serious obstacle in many respects. It was estimated that in certain periods some 60 per cent of the managerial capacity of the capital goods industry was employed on the negotiation of readjustments.

88- 3.6 During the long recession, the industry itself had ceased to invest, which meant that it was losing more and more ground technologically.

88- 3.7 An illustration of the problem of income reduction as a result of the cutback in tariffs is that at the end of 1988 the average charge for electricity in Brazil was US$ 52 per MWh, while the figure for Chile was US$ 87 and that for Spain US$ 109.

88- 3.8 The reduced level of demand for equipment was met by aggressive external suppliers. Electrobrás knew of sales of transformers at 40 years term and 2 per cent interest.

89- 3.9 For 1989 a US$ 3.2 billion petroleum sector investment programme was planned but was cut to US$ 2 billion in April of that year; by September the figure was only US$ 1.6 billion, of which US$ 1.5 billion had already been committed.

90- 3.10 The industry producing capital goods to order was invoicing a total of US$ 8.5 million at the beginning of the 1980s. In 1990 invoicing reached only US$ 3 billion.

90- 3.11 Federal public sector investment represented some 4.4 per cent of GDP in 1980; in 1990 it amounted to 2 per cent.

90- 3.12 In 1990, not only was there a lack of new tenders but the situation was aggravated by the renegotiation of projects in hand.

90- 3.13 Although privatization was a possible way out, a serious difficulty was that there were no coherent price and tariff policies for that purpose.

90- 3.14 The real rate of interest (October 1990) was 6-8 per cent per month, which made everything else unattractive except simple financial investment, whose profitability exceeded that of any normal business.

91- 3.15 In September 1991, the Federação das Indústrias do Estado de São Paulo (FIESP) reported a drop in production throughout industry, including automobiles, household electrical appliances, and agroindustry, which had maintained sound levels until 1990.

91- 3.16 Industrialists then considered that it was indispensable to find a political formula that could give credibility to the anti-inflationary strategy and overcome the crisis of confidence.

91- 3.17 There were no new works. The private sector, which had maintained its activity in the two previous years, was no longer investing and was awaiting developments. The Government paid neither its current nor its previous debts. The sector producing capital goods to order was working at 50 per cent of capacity.

4. COLOMBIA November 1991

91- 4.1 It had been decided 18 months previously that the inflation level of 30 per cent per year was excessive. It would have to be reduced and the economy opened up.

91- 4.2 Tariffs and obstacles to foreign investment were reduced. A timid labour reform was carried out and an equally timid privatization process was commenced.

91- 4.3 The measures adopted did not take such a severe and resolute form as in other countries, because, though Colombia had economic problems, deterioration was never extreme.

91- 4.4 To halt inflation, the issuing of currency was reduced and interest rates were raised, producing an avalanche of dollars. Restrictive measures were adopted, such as issuing one-year certificates to exporters for repayments to them.

91- 4.5 The priorities were to lower inflation and to balance the budget. Major investment projects deferred to the next century. The principal sectors did not invest.

Up to 1985, invitations to tender had been issued for one hydroelectric plant per year. In that year, the tenders for the Río Grande and Guavío projects had been opened. After that date there had been no other tenders and those already planned had been deferred until after the year 2000. The exception was an electricity plant whose equipment was to be provided from abroad by means of a Russian loan.

91- 4.6 The petroleum sector planned investments on a relatively modest scale and some of them were postponed.

91- 4.7 The most significant investments were made by the private sector, in an amount that did not compensate for the lack of demand by the public sector.

Some capital goods manufacturing plants had to close down and those plants that did not do so were working at less than 50 per cent of capacity.

91- 4.8 Colombia's fundamental problem was political violence. That had prevented the abundance of dollars from being reflected in a substantial increase in activity and investment.

91- 4.9 Furthermore, the only criteria in the modest level of private investment were price and payment terms. It was not regarded as important whether the product was of national origin or not. As local suppliers lacked financial support, they were being supplanted by external suppliers.

5. CHILE

89- 5.1 The capital goods manufacturing sector suffered a severe crisis during the years 1981 and 1982. The economy was opened up totally, and a very low par of exchange was maintained. Most industrial plants closed down and major items of equipment were sold as scrap.

89- 5.2 The exchange rate was later adjusted and at the same time the major State enterprises assumed their development role. For example, ENDESA managed to ensure authorization from IDB (with financing by ENDESA itself) that some tenders in projects supported by the Bank would be reserved exclusively for Chilean enterprises.

90- 5.3 By the year 1988, industry had recovered so far that installed capacity of the order of 75,000 tons/year was available and was being fully used.

90- 5.4 In 1989 there were substantial investments in mining (copper, gold, zinc), pulp, agroindustry and fisheries.

90- 5.5 In March 1990, a new Government took office. Although the previous successful economic policy was maintained, the economy lost some of its vigour.

91- 5.6 There were tax changes. Reinvested profits, which had been exempt, were now taxed (at 10 per cent, later rising to 15 per cent).

New labour laws were under study.

91- 5.7 There was a certain degree of uneasiness; that factor, together with an increase in interest rates intended to combat inflation, reduced investment, which was basically private.

91- 5.8 The lack of confidence persisted in November 1991 and, despite the orthodox management of the economy, investment did not completely recover.

6. ECUADOR

88- 6.1 The magnitude of the external debt, the fall in the prices of petroleum and an earthquake that caused serious destruction retarded economic development. Growth of 1 per cent was expected for 1989.

88- 6.2 The country made a vigorous effort in exports, with success in certain areas. External sales of shrimps alone reached US$ 400 million.

90- 6.3 In 1990, economic aggregates tended to return to normal. Growth of 2 per cent was estimated for the year, a very low figure considering that the population was growing at the annual rate of 3 per cent.

Annual inflation was of the order of 50-55 per cent. The principal problem was the fiscal deficit.

90- 6.4 The State discontinued its purchases. Petroleum demand was maintained. There was dynamic mining activity, particularly in gold mining, for which equipment was required.

90- 6.5 The capital goods industry sought complementarity agreements for supplying the domestic market. But that proved to be easier with enterprises from Australia or South Africa than from Latin America, not only for financial reasons but because the attitude of the enterprises was more positive.

7. MEXICO

88- 7.1 In commenting on the situation in their country in 1988, Mexican entrepreneurs pointed out that CFE and Petróleos Mexicanos (PEMEX), the traditional customers, had reduced their demand and set aside promotional purchases which, for example, had led to the production of 40,000 hp turbocompressors.

In view of the severity of the crisis in 1987, the country unilaterally reduced tariffs (to 10 per cent for capital goods), dismantling traditional protection.

88- 7.2 Demand fell and what demand remained was shared with foreign enterprises.

88- 7.3 The 10 per cent tax refund granted to exporters or to purchasers of national capital goods was abolished.

88- 7.4 At the end of 1988 it was estimated that the sector was working at 40 per cent of installed capacity.

88- 7.5 There was a major privatization programme which included 18 sugar mills, the copper industry, the railway sector and part of the iron and steel sector.

88- 7.6 Major petrochemical investments were planned.

88- 7.7 The Banco Mexicano de Comercio Exterior (BANCOMEXT) supported national tenders equal in amount to external bids.

91- 7.8 In November 1991 (three years after the above comments) it was stated that the resolute liberalization policy adopted had achieved major macroeconomic successes. However, the situation of the capital goods industry was still difficult.

91- 7.9 The two leading enterprises in the economy, namely, CFE and PEMEX, were compelled to make use of external financing. Tenders were awarded with an eye to financial advantages. Mexicans had to hope that the favoured enterprises would place some orders with them.

91- 7.10 The agreement with the United States offered opportunities. Technological and financial support was being sought, with good prospects, in Europe and Japan.

8. PARAGUAY

88- 8.1 Thanks to the construction of the two major binational hydroelectrical projects, it was possible to launch metal-working and engineering activity in the country that would not have been justified by the normal national market.

88- 8.2 As the Itaipú project had been completed and as work on the Yacyretá project was making slow progress, it was necessary to explore the external market. However, without financial support, whicn the Paraguayan enterprises did not have, it was not possible to achieve active presence in that market.

There was interesting demand for large-capacity river vessels.

88- 8.3 At the end of 1988, the overvaluation of the guarani prevented foreign sales or the utilization of abundant and cheap energy in new activities.

89- 8.4 In the early months of 1989, a new Government established a single floating exchange rate, abolished price-fixing and lowered tariffs to an average level of about 30 per cent.

89- 8.5 It was decided to privatize the production of steel and cement, public sector investment was suspended for two years and the external debt was renegotiated, particularly with France, Brazil and Japan.

89- 8.6 These and other complementary measures had the effect of:

- An increase in the collection of taxes;

- The presentation of private investment projects totalling about US$ 100 million;
- The activation of the construction sector;
- The improvement of agricultural prices.

90- 8.7 The freeing of prices included the readjustment of the charges made by public services; though that improved the financing of enterprises, it made the social situation worse.

90- 8.8 The capital goods industry had remained active, seeking new markets, modernizing its production and manufacturing spare parts for third parties.

90- 8.9 The industry was working at 40 per cent of installed capacity (October 1990).

91- 8.10 The - transitional - Government called a temporary halt. A tax reform and a new labour code were under study.

91- 8.11 The Mercado Comum del Súr (MERCOSUR) negotiations in November 1991 were a new uncertainty factor.

91- 8.12 The central policy concerns were the control of inflation and the fiscal deficit.

91- 8.13 The result was a low level of activity and serious financial austerity. ("There was work but there was no pay".)

9. PERU

90- 9.1 At the end of 1990, the country was plunged into a global crisis. In 1988, the GDP fell by 14 per cent, in 1989 it again dropped 12 per cent, and an 11 per cent reduction was predicted for 1990.

90- 9.2 Gross fixed capital formation dropped from 22 per cent at the beginning of the 1980s to about 3 per cent in 1989. The tax burden, which had been 15 per cent, fell to 3.5 per cent.

90- 9.3 The distortion of prices was illustrated by the fact that in June 1990 a gallon of gasoline cost 12¢. The minimum real wage was the equivalent of US$ 30 per month.

90- 9.4 The new Government had to raise the price of fuels by 3,200 per cent and change the electricity and drinking water prices in the same proportion.

90- 9.5 By means of very rigorous inflation control measures, it was possible to reduce the inflation rate from 400 per cent in August

(1990) to 13.8 per cent in September, 9.6 per cent in October and 5.9 per cent in November.

90- 9.6 Owing to the inevitable recession (which was, furthermore, inherited), the industrial sector utilized only 40 per cent and capital goods manufacturers not more than 25-30 per cent of installed capacity. The activity of the latter used to represent 3.55 per cent of GDP. The current figure did not exceed 0.8 per cent.

10. VENEZUELA

91- 10.1 The new Government which took office in March 1989 pursued a liberalization policy. The exchange rate was allowed to float, the interest rate was freed, and at the same time the external debt was renegotiated. A process of tariff reductions was set in train, with the aim that the maximum value should be 20 per cent, in which case the rate on capital goods would remain at some 5 per cent.

91- 10.2 A privatization process was taken in hand and already included some banks and the principal airline; at the beginning of November 1991 offers were invited for 40 per cent of the telephone company, yielding an unexpectedly high price, which was very favourable.

91- 10.3 The Venezuelan domestic market was practically unprotected. However, the dominant purchaser, Petróleo de Venezuela (PDVSA) had good financial capacity and a clear perception of its responsibility towards the country's industry.

91- 10.4 PDVSA planned to invest US$ 30-48 billion in the coming five years. The enterprise had a financial base capable of bearing a large part of that demand independently.

91- 10.5 Venezuelan industry therefore had a good preferential market if it was competitive. PDVSA could not accept cost inefficiency, much less defects in quality.

91- 10.6 Part of the requirements nevertheless had to be purchased abroad in order to ensure sales of petroleum.