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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, e.g., 1971-1973, indicates reference to the complete number of calendar years involved, including the beginning and end years.

References 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 may not necessarily add up to the corresponding totals, because of rounding.

Latin America and the New International Development Strategy

*Projections Centre,
CEPAL*

This paper was prepared for the group of permanent representatives of Latin American countries at United Nations Headquarters in New York (GRULA).

It begins by examining the development of Latin America during the past decade in order to identify the nature and scope of the main problems facing the region on the threshold of the 1980s and studies some economic projections regarding this new decade.

This prospective analysis emphasizes Latin America's need to stimulate the transformation of its economies and sharply accelerate their economic growth rate in order to absorb the economically active population, and having shown the need for such advances it appraises their repercussions on the structure of production and the demands they will pose in terms of saving, investment, and the external resources related to financing and the need to increase exports. In this context it refers to the nature of the problems which should be dealt with in the new IDS as regards the restructuring of the world economy, and lays stress on the importance assumed by regional co-operation and co-operation with other developing areas or countries.

The final part of the paper deals, *inter alia*, with two aspects of special significance for the new Strategy. It suggests that the regional commissions should draw up and approve, through their governmental organs, regional action programmes for the instrumentation and application of the IDS adopted by the General Assembly, and it enumerates qualitative and quantitative targets and objectives which might be included in the appropriate chapter of the Strategy. Although it does not embark on an analysis of policy measures and does not lay down quantitative targets for Latin American development, it does provide excellent background information and technical data for discussion of these issues.

I.

Economic and social development in the 1970s: Experience and lessons

1. *Rate and structure of economic growth: upward and downward trends*

In the 1970s the economic evolution of the Latin American countries varied significantly and the rate and structure of their development underwent radical changes. This evolution acquired considerable dynamism in some countries and was slower in others, but in general the process developed from a period of accelerated growth to a particularly weak situation which gave way, in recent years, to a trend of moderate recovery, although at the same time the problems connected with the balance of payments, inflation and social tensions intensified in the majority of the countries.

The region attained an economic growth rate of approximately 6% per year, which is close to the minimum target established for the Second United Nations Development Decade. The population growth rate, however, remained relatively high (an average of 2.7%), so that the per capita product rose by 3.2% annually, thus falling short of the 3.5% growth rate which was a complementary target of the Strategy for this decade.

These global indicators conceal marked differences in the countries' development. Over half failed to attain an annual growth of 4.5% for their domestic product, and only six countries achieved a growth equal to or higher than the 6% target. Significant disparities also continued to be recorded in the countries' rates of population growth. Accordingly, marked changes took place at the regional level with respect to the countries' economic and demographic importance, stage of industrialization, and economic, financial and technological capacity.

The process of transformation of the agricultural economy continued to make progress, with increasing modernization and diversification of production and crops. Nevertheless, the average growth of production did not exceed its

historical trends. The levels attained by the region as a whole in 1978 show an average annual growth of slightly under 3.5% with respect to 1970, which is less than the 4% target established in the Strategy for the decade. Here, too, there were obvious differences in the countries' development, since while the majority fell short of the target, seven countries attained or even surpassed it.

Neither did the region as a whole attain the 8% target laid down for manufacturing production. The fluctuations in the growth rate of manufacturing—its expansion in the early 1970s and its slower growth in the last few years—were more marked than those recorded in overall growth.

The level of industrial production in 1979 represented an annual growth of only just over 6.5% with respect to 1970, and not more than three countries attained or exceeded the 8% target established in the Strategy for the Second United Nations Development Decade. Far more accelerated growth was recorded in the first four years of the decade—i.e., 8.6% annually, although this was heavily concentrated in two or three countries—but in the last four years the growth rate declined sharply. In short, if the trends throughout the period are reviewed, it may be concluded that the rate of industrial development was relatively slow in the majority of the countries, above all if account is taken of the present stage of Latin American development.

The dynamism and production and technological changes characterizing economic development in the post-war period are clearly seen from the rise in the consumption of energy and the changes in its primary sources. Over the long term (1950-1975) the total consumption of energy of the region as a whole grew at a rate of approximately 5.5% annually, i.e., similar to the gross domestic product. The consumption of commercial or modern energy, however, experienced a much more rapid increase than the domestic product, since its rate of growth was close to 7% annually. This was due to the important changes that took place in the sources of energy as a result of their own technological development, and particularly to the structural changes in production and domestic demand which have accompanied eco-

nomical development. In 1950, production from the traditional non-commercial sources for the region as a whole represented nearly 40% of total consumption, while in 1976 it represented only about 15%.

In contrast with what occurred in the case of consumption, the production of commercial energy grew by only 4% annually in the period 1950-1975. As a result of this uneven development, the region saw its exportable surpluses diminish in relative terms. Thus, in 1950 Latin America consumed in the form of petroleum products 27% of its petroleum production and 17% of its output of natural gas. In 1975, however, the proportions had risen to 57% and 43%, respectively. Accordingly, while the region continued to be a net exporter of fuels, the trend shows a rapid decline in its exportable margins, although later the situation changed somewhat, with the appearance of new exports flows, mainly from Mexico. The situation and prospects differ widely from one country to another, influenced in particular by the considerable share of hydrocarbons and the part played by imports in the supply of domestic needs.

The course of the world economy, and particularly the evolution of the industrial countries with which Latin America maintains the bulk of its external relations, especially influenced the rise and fall of the economic growth rate of the Latin American countries. The developments and serious problems affecting the world economy have marked effects and repercussions on the economic situation and prospects of the countries of the region. To recall this, even if only in brief outline, is of particular interest in order subsequently to present certain reflections concerning the preparation of the Strategy for the next decade.

In the first four years of the 1970s the economy grew at an accelerated pace and the region as a whole attained an annual rate of approximately 7.5%. Some singularly important dynamic factors were, on the one hand, the national policies directly aimed at stimulating economic growth and, on the other hand, the buoyant external demand deriving from the favourable evolution of the developed countries' economies up to 1973. Another factor contributing to this process was the improvement in the terms of trade and a more flexible availabili-

ty of external financing than that recorded in the previous decade.

In 1974 the Latin American economic situation and the evolution of the world economy changed substantially. The oil-exporting countries benefited from a further increase in prices, which was reflected in a rise in their real income and an increase in their external purchasing power. In contrast, the non-oil-exporting countries had to face weaker external demand due to the economic recession in the developed countries, while also suffering a deterioration in their terms of trade. During that year, however, they continued to expand their investment and domestic product, and further increased their imports, thus incurring a substantial deficit on the current accounts of their balances of payments which was partly covered from their monetary reserves and partly from external financing.

In 1975, the worsening of external conditions was reflected in a significant drop in the external purchasing power of the Latin American countries and, in spite of the contraction in imports, the balance-of-payments current account deficits rose above the previous year's figures. The rate of economic growth fell drastically to only 3%, i.e., practically the same as the population growth of the region as a whole.

The three-year period 1976-1978 was characterized by a process of recovery, but even so the economic growth rate of around 4.5%¹ annually was one of the lowest in the last three decades. Growth has been uneven in the various countries: there have been some situations of comparatively higher growth, contrasting with others showing a more unfavourable evolution.

During this period, many countries affected by balance-of-payments problems strove to adjust or control their domestic demand. They promoted and succeeded in appreciably increasing their exports, while they contained and even reduced the absolute levels of their imports in an attempt to diminish the external imbalance. These measures are now more difficult to implement, since they would have

more serious effects on the rate of investment and domestic production, while at the same time the balance-of-payments position has also become more inflexible because of the increase in financial services and the remittances of interest and profits on the cumulative debt and foreign investment, added to which is the higher cost of imports due to inflation in the industrial countries and the higher oil prices for importing countries.

In brief, the interrelationships and degree of dependence recorded by the Latin American economies with respect to the course of the world economy, and in particular that of the industrial countries, are to a certain extent reflected in the parallel evolution of the economic growth rate of Latin America and of the industrial countries as a whole, above all since the middle of the 1960s. The indicators of the domestic product coincide in showing for the industrial countries and for the various groups of Latin American countries a relative rise up to 1973, a sharp fall in 1975 and a subsequent recovery. The statement of this fact is not intended to suggest a simple and immediate causal relationship. Among other aspects, there are powerful autonomous forces and factors in the Latin American process and the structural conditions have changed considerably with respect to the past. This same comparative analysis shows in the context of those interrelationships the singular evolution of the oil-exporting countries, the deferment until 1975 of the impact of the unfavourable external factors on Latin America's economic growth rate, a smaller drop in the rate than might have been expected from past experience, and the fact that within the context of the fluctuations described, Latin America's rate of economic growth tended to remain at a higher level than that of the industrial countries, without any contractions in its absolute level.

2. Changes in the structure of external economic relations

During the 1970s there were radical changes in Latin America's form of integration in the world economy and the process of internationalization and closer links with industrial market-economy countries has been intensified.

¹ It should be noted that the gross domestic product for 1979 is expected to increase by around 6.5%.

Transnational corporations have played a predominant role in this process, as also have private international banks, owing to the importance they have attained as a source of external financing for the Latin American countries. Governments, for their part, have promoted policies of opening up to the exterior in the various economic, financial and technological aspects. Specific expressions of the new structural relations are found in the rate and composition of exports and imports, which represent significant changes in the structure of economic growth, changes in the sources of financing, and in the high levels of external indebtedness.

Transnational corporations play an important part in manufacturing production. They predominate in the more dynamic key sectors which are also making more rapid technological progress, in particular in the chemical, basic metals, metal manufactures and machinery and motor-vehicle industries. They have less participation in the traditional industries, where national enterprises play a more important role. Their operations are mainly directed towards the domestic market and to a lesser extent towards exports. A significant proportion of the imports, external financing and absorption of technology by the countries of the region is channelled through the transnational enterprises sector.

It is estimated that in 1975 the cumulative investment of the Organisation for Economic Co-operation and Development (OECD) countries in Latin America was close to 40 billion dollars and sales by transnational corporations represented some 80 billion dollars.

The growth rate of exports has tended to rise since the middle of the 1960s, partly as a result of the deliberate promotion policies of the Latin American governments and in particular because of the course of external demand. Nevertheless, the region as a whole was far from achieving in the 1970s the target of slightly over 7% established for the Second Development Decade.

Exports experienced a dual process of diversification. Exports of manufactured products increased and for the region as a whole came to represent 20% of total exports, although this was not a uniform trend and tended to be concentrated in the large and some of the

medium-sized countries. This was accompanied by a process of diversification of the individual countries' exports of basic commodities or the establishment of new flows of agricultural and mining products which have gradually acquired considerable importance. Thus the effects of industrialization and of the production changes which have been taking place in the national economies for some time past have begun to yield results in terms of Latin American exports.

A movement towards greater liberalization of imports has been observable since the end of the 1960s, and in many countries this constitutes a new phase of economic policy, clearly different from that prevailing in the 1950s and the early 1960s. Imports grew vigorously and their coefficient with respect to the domestic product tended to increase. These trends were interrupted in recent years owing to the serious balance-of-payments problems.

The composition of imports shows characteristics which are of special significance for prospective analyses. First the major proportion comprises intermediate products, fuels and capital goods: thus, total demand for imports is closely linked with the course of domestic production and investment. Secondly, the value of imports of fuels, lubricants and other petroleum products has risen appreciably in most countries as a result of increased external supplies and higher costs, and absorbs an increasing proportion of current foreign exchange receipts.

In the inflationary context dominating the world economy, the evolution of prices of basic commodities and manufactures has been far from uniform among the various items and branches composing them: thus, the changes in the terms of trade have had effects of varying intensity and notably different results in the countries of the region. It is a well-known fact that during this decade the oil-exporting countries have raised their average terms of trade above the markedly depressed levels recorded in the 1960s. The non-oil-exporting countries, for their part, have shown diverse trends. The terms of trade have been distinctly unfavourable for some medium-sized and small countries and less unfavourable for others. If the whole group of non-oil-exporting countries is

considered, it will be seen that the improvement in the terms of trade favoured them for a relatively short period, particularly in the two years 1972-1973, but the position of this group of countries subsequently deteriorated and the index of the terms of trade in goods and services recorded a level very similar to the average for the 1960s, which in its turn represented a deterioration with respect to the levels of the previous decade.

Far-reaching changes have taken place in Latin America's external financing. This refers to the amount and composition of financing according to its sources. The balance-of-payments current account deficit for the group of non-oil-exporting countries has increased considerably, reaching an average for the 1970s of 3.2% of the gross domestic product: a much higher proportion than the average of 1.9% recorded in the previous decade.² The inflow of external funds, however, tended to exceed the current account deficit in many countries and contributed to the growth of foreign exchange reserves.

The other notable fact is the transcendental change that has taken place in the sources of financing. In the 1950s and the early 1960s, most of the funds entering Latin America consisted of official long-term capital and, in part, direct investment; in recent years, however, a large proportion has consisted of short- and medium-term loans from private banking and commercial sources, at increasing rates of interest. The level of commitment represented by external financial services with respect to national income and the current value of exports has therefore risen.

The nature of these financial flows and the situations of indebtedness created constitute factors of uncertainty and instability as regards their future prospects, above all if it is taken into account that they have so far made it possible to cover import needs which would otherwise have been more restricted, with an ultimate impact on the rate of economic growth and investment.

The result of this process has been an appreciable increase in the external debt, which

rose from some 10 billion dollars in 1965 to about 100 billion at the beginning of 1979. In short, a situation of external vulnerability has gradually arisen, which has special significance in the analysis of development policy prospects and guidelines.

Although the economic integration agreements, with the exception of the Andean Group, have met with difficulties and in the majority of cases have failed to achieve the established goals and objectives, important progress has been made in multinational infrastructure investment, particularly in the energy field, as well as in the expansion and diversification of intra-regional trade.

The proportion of total exports destined to other countries of the region has increased. Reciprocal trade has a bigger content of industrial goods, especially intermediate products and capital goods, and in some sectors these flows represent an important growth factor.

Certain technological flows have also been promoted between countries of the region, although this is far from representing a substantial change in their heavy technological dependence on the industrial countries.

3. Persistence of social problems

In most countries the high rate of population growth was maintained through the 1970s, although it tended to diminish in the latter years. In contrast, the growth of the labour force accelerated as a result of the population trends in previous decades and the greater participation of women in economic activities. The process of rural emigration continued and urban concentration was intensified, with its immediate effects in terms of the availability of manpower and increased pressure on the physical and social infrastructure of the cities.

The heterogeneity which has characterized the structure and development of the Latin American economies, and particularly the structure of the industrialization process, does not seem to have diminished during the decade. The incorporation of modern technology appreciably helped to increase production but had a limited spread, so that in this stage of Latin American development the differences in productivity between various segments of production have persisted or even increased.

²Percentages estimated on the basis of figures expressed in dollars at 1975 prices.

To this heterogeneity inherent in the urban area has been added a growing differentiation in the productivity of the rural area. Here, the development of modern agricultural enterprises, in a setting where the traditional rural economy changes slowly, has been reflected in marked inequalities in the productivity of the various systems of farming, with income distribution implications which may easily be imagined.

In the context of this economic and social process, employment problems and the magnitude of the poverty situations have not been attenuated either: in fact, everything seems to indicate that they may have been aggravated, particularly as a result of the slowing down of the economic growth rate recorded in many countries in the last few years. Various studies around 1970 indicate that the total underutilization of manpower may be estimated at the equivalent of about 30% of the total economically active population, and that one-fifth of such underutilization represents open unemployment. Furthermore, there are impressive differences in household income between the various social sectors, the share of a large mass of the population in national income being minimal.

This brings out the magnitude of the poverty situation, since estimates (also for the beginning of the decade) indicate that —with substantial differences between countries— the region as a whole records 40% of all families as affected by situations of extreme poverty, and nearly half of them could be regarded as indigent.

The evaluation of the social process prevailing in Latin America could therefore be summarized in the following concepts expressed in resolution 386 adopted at the eighteenth session of CEPAL: “The far-reaching social changes which have accompanied the prevailing process of economic growth in the region have helped to shape societies which are unjust and highly polarized, with increasing social differentiation and extremely unequal distribution of the benefits of growth”.

4. Final considerations

The review of economic and social development in Latin America, some of whose salient

features have been set forth briefly above, stimulates certain reflections which it is useful to note in connexion with the discussion being held on important aspects of the new International Development Strategy. In this schematic document, special reference is made to the economic growth potential, the need for the expansion of trade, essential aspects of the region's external vulnerability and, finally, the equitability and social content of the development process.

The region as a whole showed itself to possess real growth capacity which enabled it to expand at an average rate of 7.4% in the period 1970-1974, although it must be recognized that considerable differences existed between one country and another. If it is taken into account, however, that many countries grew at low rates which were undoubtedly lower than they might have attained, it would seem safe to say that the region has a considerable economic growth potential.

Experience during this period showed that when external conditions are favourable the region is capable of promoting a dynamic and large-scale process of investment and economic growth. This is not a new feature, but it acquires special significance in this new stage of economic development attained by Latin America, because of the projections it may have within the framework of a new structure of the world economy, and because of its capacity to give greater weight to the social aspects of the development process.

The nature and extent of the effects produced by the evolution of the world economy and particularly the growth rate of the industrial countries on the economic growth of the countries of the region was evident. This is explained by the important role played in the context of the structure and factors of economic growth by external demand, the terms of trade, the supply of essential products required for economic growth and the availability of financing for increasing external purchasing power. It is therefore suggested that clear objectives be established in this connexion, and experience has shown the need to provide the international machinery necessary to take care of situations created by unfavourable external factors beyond the countries' control, such as the

adverse effects of recession and fluctuations in the world economy. The Strategy for the Second Development Decade did not consider this aspect because it was based essentially on the premise of sustained growth of the world economy.

It is clear that the region needs expanded external trade and financing in consonance with its economic development goals. Within the context of the structure of external relations, particular importance attaches to the development of active trade with the developed countries, with which the region currently conducts two-thirds of its trade. It depends on these countries for supplies of basic inputs, capital goods and technology, which are essential for carrying on the process of production changes and, in particular, industrialization plans. Accordingly, access under satisfactory conditions to the developed countries' markets which will facilitate the growth of exports of basic commodities, semi-manufactures and manufactures is an essential requisite for accelerating growth. Of course, regional co-operation and the expansion of reciprocal trade are also essential requisites, but they cannot be considered as substitutes for the first. Both strategies should be envisaged as complementary objectives, above all in the period covered by the 1980s.

These objectives, which are consistent with the national policies that have gradually been consolidated in the sense of promoting a development strategy with an increasing degree of openness to the exterior, come up against opposing or decidedly unfavourable trends and policies on the international scene, particularly in the central industrial countries. These are widespread inflation and unstable commodity prices, which ultimately lead to a deterioration in the terms of trade to the extent that they are not counteracted by rises in Latin

America's export prices; the restrictive policies and prospects of recession or slow economic growth in the industrial countries, which limit external demand; and the resurgence of protectionist measures which hamper or impede proper access to those countries' markets, added to which is the rise in the prices of fuels for importing countries.

This situation becomes even more complex because many countries of the region have accumulated substantial amounts of external indebtedness and the servicing of this represents high proportions of the value of exports, so that in some cases it will be difficult to exceed certain limits in respect of the debt unless current export earnings increase appreciably. It is clear, therefore, that the acceleration of Latin America's economic development is likely to face serious difficulties if such trends persist in the world economic situation. In these circumstances, the need for a vigorous regional co-operation policy once again arises in a new context.

The government appraisals made in CEPAL (Quito, Chaguaramas, Guatemala and La Paz) repeatedly make two fundamental comments on the styles of development prevailing in the region. One is that the development process fails to incorporate the whole mass of the population, and the other is that the benefits of economic growth are not equitably distributed. This situation will tend to get worse with the acceleration in the growth of the labour force. It will therefore be necessary to suggest strategies and policies on a more integrated basis and to promote structural and institutional changes which will lead to a new orientation of the development process, with a view to giving this wider social repercussions, increasing employment, improving income distribution and eradicating situations of extreme poverty within a reasonable period.

II

Economic development projections for the 1980s: the growth rate and the external sector

1. Growth in population and in the labour force and the need for more rapid economic growth

Future changes in the population, its composition and location and their repercussions on the labour force are of special importance in examining the basic objectives of the development strategy, especially because of the magnitude of unemployment and underemployment, the extent of poverty and the highly unequal distribution of income which prevails in the countries of the region.

The rate of population growth has accelerated in the past three decades, reaching a peak at the beginning of the 1970s. In recent years a decline in the high rate of population growth has begun, and has become quite substantial in some countries. This is the result of the economic and social changes and transformations characteristic of this stage of Latin American development, which are taking place at the same time that more favourable official and private attitudes to the adoption of population policies are developing. It is estimated that the present population growth rate of 2.7% a year will gradually decline, with an accentuation of this trend towards the end of the century, though even then the rate will still remain relatively high, probably slightly over 2% a year. In this way, it may be expected that the population of the region will increase by more than 100 million in the 1980s, from 360 million to 470 million, reaching a figure of around 580 million by the year 2000, according to available estimates.

In the next twenty years the marked differences in demographic processes which have been observed between the countries of the region will make themselves felt even more strongly. A group of countries comprising Argentina, Chile, Cuba and Uruguay will continue to record a decline in their population

growth, and their population will increase by between 0.9% and 1.5% a year. The absolute totals for the rural population will fall, while the labour force will expand substantially faster than the total population, tending to decline towards the year 2000.

Another group of countries, comprising Ecuador, Mexico and the majority of the countries of Central America, will maintain vigorous population growth, with annual rates of 3% or more for the total population, even though in some of them these rates will be lower than those of recent years. These countries will continue to experience strong growth in the urban and rural population, and the labour force will grow more rapidly than the total population.

Finally, a third group of countries, which includes Brazil and Colombia, among the countries with larger populations, show trends of an intermediate type. There will be appreciable drops in their population growth rates, but on the other hand growth of the labour force will rise to around 3% a year or even more.

The spatial distribution of the population will continue to change rapidly, and both individual population centres and the structure of Latin American societies will acquire new features. The growth rate of the rural population will tend to fall, and in the demographically less dynamic countries the rural population will contract in absolute terms. By the year 2000, about 80% of the population of the region as a whole will be urban, and two-thirds of the total population will live in towns of over 20,000 inhabitants. In all the countries the rural population will make up less than half of the total, and the degree of urbanization will be much higher than the average in the southern countries.

This growth in the population and change in its distribution will have serious economic, social and political repercussions. Firstly, there

will be a considerable expansion of potential and actual demand for goods and services, especially if efforts are made to achieve specific objectives as regards improving the living conditions of all sectors of society and reducing or eradicating situations of poverty and indigence within a reasonable period of time. Secondly, the spatial changes in the population will lead to profound changes in the form, size and relative importance of the urban and rural strata of Latin American societies; in particular, the growth of the urban population will exert strong pressure on the physical and social infrastructure. Thirdly, there will be a shift in the problems of unemployment and underemployment from the rural areas, with increased impact on underemployment and marginal or low-productivity occupations in the urban areas, to the extent that development strategies and policies do not satisfactorily tackle these problems. Fourthly, it is also clear that this population increase could broaden and diversify the markets of the Latin American economies if success is achieved in promoting a dynamic process of absorption of the labour force in production, raising per capita income and improving income distribution.

The explosive growth which will take place in the economically active population undoubtedly represents an exceptional challenge for development strategies and policies. Annual growth rates in the labour force of around 3% or even more, deriving from the age structure of the population and the greater participation of women—factors which will not be modified in the immediate future even if the decline in population growth is greater than expected—are extremely high, and give rise to an employment problem which is very difficult to solve and which is aggravated by the high levels of present unemployment and underemployment of the active population.

There will be a need, accordingly, for a form of economic development which is substantially more dynamic than that recorded in the region as a whole in the past, and much more so, of course, than that which has been achieved in recent years. It should not be forgotten that as economic growth accelerates, so does the increase in the product per employed person, because of the progress which

must be recorded in the introduction of new or modified forms of production. As is well known, there is a trend towards an increase in the capital required per person employed, as well as a sharp rise in the volume of output which is needed to absorb the same quantity of labour.

2. The requirements posed by more rapid economic growth

(a) Scenarios of Latin American economic growth. The saving and investment requirements and the sectoral structure

In order to pursue its analysis of development strategies and policies, CEPAL is carrying out a programme of prospective studies covering the 1980s and, as far as some aspects are concerned, extending to the year 2000. At this stage the study is being carried out on the basis of a macroeconomic analysis covering most of the countries of the region. The analysis examines three economic growth scenarios: one based on historical trends, one on moderate acceleration and the third on increasing acceleration.

For the region as a whole these scenarios give economic growth rates ranging from 6.3% to 8% per year. It must be clearly understood that these are not forecasts, but form part of a study whose basic aim is to supply inputs for the analysis of the problems and the clarification of certain aspects related to the nature and magnitude of the objectives which must be pursued by development strategies in relation to the acceleration of the growth rate for the next decade.

The scenario based on past trends (6.3%) represents a weighted average of the historical rates of growth of the gross domestic product recorded by each of the Latin American countries since the war. The most dynamic scenario (8%), for its part, has been designed to examine first and foremost the requirements in terms of economic growth and transformation of production which would be implied by the Lima industrialization target³ and greater ab-

³“Lima Declaration and Plan of Action on Industrial Development and Co-operation”, Second General Conference of the United Nations Industrial Development Organization, Lima, March 1975.

sorption of the labour force. In this context, the "moderate acceleration" scenario falls in an intermediate position. This is the scenario which is studied below.

For the region as a whole this scenario implies a growth rate in the gross product of about 7.5% a year. Consequently, it represents higher growth than the scenario based on long-term historical trends, for each of the countries considered, but as a whole would mean relative economic growth roughly equal to that recorded by Latin America in the first four years of the 1970s. However, it should be emphasized that during that period growth was principally concentrated in two or three countries, while the scenario under consideration assumes a more rapid growth rate in all the countries.

Achievement of this growth target would require a high level of dynamism of investment, the coefficient of which in relation to the product would have to rise to over 25%. In principle it is estimated that this would not represent an insurmountable obstacle, because the region has, especially in its boom period, provided evidence of its capacity to promote a very substantial investment process. Domestic saving would have to rise appreciably if—as would be desirable—external financing were limited to reasonable proportions *vis-à-vis* investment, the product and exports.

However, it should be noted that the conditions and performances outlined in this scenario vary from one country to another, and there are many cases where a more rapid growth rate calls for much greater relative increases in investment and domestic saving—and, accordingly, a more intensive effort—than in other cases. It is also evident that the relative importance of external financing compared with the levels of the product and of investment would likewise be substantially different from one country to another.

In this growth scenario, industrialization would acquire a relatively high level of dynamism and its annual growth rate would be slightly over 8.5%. This implies a much more rapid and thoroughgoing process of industrialization than in the past. It will be necessary to include new activities with higher technological content and greater investment of capital in

the essential intermediate products and capital goods branches. In this new stage, industrialization will have to take place in the best possible conditions of economic efficiency, since the achievement of this growth scenario calls for substantial expansion of trade in manufactured products among the countries of the region and exports to the markets of the developed countries and other developing areas.

The agricultural sector will also have to expand more rapidly. The macroeconomic projections drawn up on the basis of the historical ratios observed in the various countries between the product of the agricultural sector and the gross domestic product indicate, for the region as a whole, an annual agricultural growth rate of about 4.2%. More specific and detailed studies carried out in the Joint CEPAL/FAO Division, using the methodology and technical information supplied by FAO, give a similar rate of 4.3% per year, on the basis of a growth rate in the domestic product of about 7.5% and specific assumptions concerning external trade in agricultural products.

Project 2000 drawn up by FAO presents a normative scenario of economic development for Latin America which implies for the region as a whole a 6.9% growth rate in the product in the 1980s and a rise of 4.1% in gross agricultural output. Naturally, this rate would be slightly higher using an economic growth scenario with greater dynamism, such as the one considered in this document.

It is not easy to indicate accurately the degree of comparability between the projections produced by the macroeconomic model and the other two projections referred to, which relate to gross sectoral output. However, they all agree that the (gross) growth rate in agricultural output consistent with the economic development scenario under consideration would have to be somewhat over 4% a year. This implies a fairly substantial degree of acceleration over the historical trends and over the trends of the present decade, which, according to national accounts statistics, reflect growth of about 3.5% a year. The FAO series on gross output indicate slower growth: the 1978 levels of output imply an annual cumulative rate of 2.9% compared with the average for the three years 1969-1971.

This increase in agricultural output in the region is essential to meet the growth in domestic demand resulting from the expected growth in income—which would be still further intensified if targets were laid down for the eradication of extreme poverty or situations of indigence—and the need to meet at the same time the objectives of increasing exports of agricultural products and reducing imports from outside the region.

Various studies provide data which demonstrate the feasibility of more rapid growth in agricultural output. The greater dynamism would have to be achieved through greater recourse than in the past to raising the productivity of the cultivated land; however, increases in area will continue to be an important factor in raising output from this sector.

Analysis of energy requirements is a problem of special concern, because of the major impact they have on the technological and economic policy strategies of the development process. In present circumstances energy is of course a key aspect which must even be taken into account in assessing the feasibility of the scenarios themselves, in view of the basic and complementary nature of energy as a factor in the production of goods and services, to such a point that it is one of the defining features of the style of development of this industrial age.

Naturally, this examination must refer to the concrete situations in each of the Latin American countries. In this regard there are few comprehensive prospective studies of a technological and economic nature, and the overall analyses of projections which the secretariat has undertaken are still being prepared. However, a few general observations can be made to illustrate the nature and magnitude of the energy problem in relation to Latin American economic growth.

As was explained in the previous chapter, total energy consumption measured in terms of the use of primary sources increased over the postwar period at an average rate of about 5.5% a year; in other words, for the region as a whole energy requirements grew at the same rate as the domestic product. Much greater growth was recorded in commercial energy (almost 7% a year), because of the replacement of traditional sources.

As a result of the increases currently occurring in the real prices of hydrocarbons, which for the region as a whole make up more than 60% of total energy supplies, it may be expected that the elasticity of demand *vis-à-vis* the product will tend to fall and that deliberate policies will be applied to restrain energy consumption in specific sectors or for specific purposes. At the same time, however, it is clear that the rate of economic growth and the dynamism of the productive and technological transformation which would accompany the economic development scenario under consideration in fact imply an appreciable increase in the product per person employed and a greater input of energy, in line with familiar technological patterns. As a result, unless other styles or scenarios of development are conceived, it may be assumed that, despite any economies which may be achieved, energy needs will rise faster than in the past and will tend to double within 10 to 12 years under the economic growth hypothesis of 7.5% a year.

In view of the uncertain prospects ahead as far as energy supplies are concerned, it is worth analysing whether the conditions prevailing in the countries of the region in this regard will make it possible to meet the requirements referred to. Only a few general aspects of this issue will be mentioned here.

It should be noted that the region as a whole is a net exporter of energy to the rest of the world. However, as was pointed out in chapter I, the exportable balances have been declining. In recent years this situation has tended to change somewhat with new flows of exports, principally from Mexico. The studies on this subject must be updated, since there is much uncertainty concerning the evaluations. At present no more than five countries are genuine net exporters of hydrocarbons, while all the others are net importers, although they display widely varying degrees of external dependence.

A variety of situations exist at the national level. On the one hand, the oil-exporting countries have strengthened their financing capacity and, as their terms of trade continue to improve, their opportunities for more rapid economic growth will broaden still further. On the other hand, the non-oil-exporting countries

face a variety of prospects. In some, the importance of external fuel supplies in relation to projections of total demand, and the size of fuel costs compared with current income in foreign exchange, are relatively small. Their demand for imports of hydrocarbons will tend to grow at different rates depending on the development of domestic production and the results of the energy measures and policies adopted. Their balance-of-payments problems may worsen, but they are very unlikely to prove an insurmountable obstacle or to do any more than other factors to hamper progress towards the target of more rapid economic growth. In contrast, there is another large group of countries of various sizes where the degree of dependence and the relative importance of the cost of imports are much greater, and constantly growing. In this group there are many cases where the energy problem is becoming extremely important, and where economic growth scenarios cannot be considered independently of energy prospects and programmes. In these countries, economy in the use of energy, the replacement of hydrocarbons by other conventional and non-conventional energy sources, the reduction of dependence on petroleum imports and the expansion of exports in order to increase external purchasing power must be regarded as inescapable objectives of the development strategies and policies. The need to tackle, within a framework of regional co-operation, the problems of the balance of payments and of access to a stable supply of energy which are facing the countries most seriously affected by the energy shortages was recognized by the Extraordinary Meeting of Ministers of OLADE (Costa Rica, 6-8 July 1979) in the "Declaration of San José": "A lasting solution to the present crisis calls for immediate and continuing efforts to increase the supply and diversify the sources of energy, and to rationalize demand. However, because of the specific characteristics of the sector, these actions can only bear fruit in the medium and long term. Accordingly, it is urgently necessary to seek machinery to guarantee in the short term a stable supply of energy to the developing countries which at present import it".⁴

⁴Paragraph 6 of the Declaration of San José.

"In the short term, there is an urgent need to deal with the problems arising from the serious balance-of-payments situation being experienced by some oil-importing countries of the region. However, this should not mean ignoring long-term programmes to attack the structural roots of the present situation: basically the poor progress made in the exploitation of local energy sources both in relatively less developed countries and in countries at an intermediate level."⁵

This growth scenario implies a substantial sectoral and technological transformation of the economies of the Latin American countries. According to it, the share of the agricultural sector will fall appreciably, while that of the manufacturing sector will rise. The dynamism of this process and the levels of the indexes of the sectoral breakdown of the product will vary between countries, and these will continue to record substantial differences in degrees of development over the next 20 years.

This scenario is also characterized by a sharp increase in the product per person employed, which indicates the strong process of technological transformation which would spread through the national economies. This aspect applies to almost all the various groups of countries. It is more intense in the manufacturing sector compared with the agricultural sector and the economy as a whole. This disparity in the growth of productivity between and within the economic sectors raises serious problems which will have to be taken into account in formulating policies to improve the distribution of income.

Despite the rise in the productivity indexes, the greater dynamism of the economy will be reflected in a higher level of absorption of the labour force, which, for the region as a whole, could actually equal the increase in the economically active population. Even so, however, this would not solve the problem of unemployment in a relatively short period, because of the extent of underemployment and open unemployment. Nevertheless, improved levels of productivity and income would be promoted for that segment of the population. The structure of employment would have to

⁵Paragraph 19 of the Declaration of San José.

undergo substantial changes, not only as regards its sectoral distribution, but also as regards its breakdown in terms of the nature of the occupations and their degree of skill. This raises the question of the training needs of the economically active population, which must also be examined.

(b) Import requirements

In most of the countries of the region, from the end of the 1960s up to 1974 the volume of imports grew rapidly, and faster than the domestic product. This occurred in the context of structural changes in the direction of more open relations with foreign countries, the diversification of exports, greater use of external financing, and active participation by the transnational corporations in the economies of the countries of the region. In contrast, in the last four years, as a result of the serious balance-of-payments problems in the non-oil-exporting countries, the dynamism of imports has fallen so much that in some cases there has even been a fall in absolute levels, particularly in the most important countries of the region.

These prospective studies examine the possible future trend of imports in the context of a dynamic process of growth, taking into account various factors concerning the characteristics of this process, especially its relations with the product and investment. This analysis shows that the import requirements will tend to grow for almost all the countries, and for the region as a whole, slightly faster than the domestic product. Thus in the scenario under consideration imports would grow at a rate of 8.0% per year in the 1980s. In this way the value of imports of goods and services in 1990, at constant 1975 prices, would be 2.6 times higher than the average recorded in recent years (1976-1978). The predominance of intermediate products and capital goods would continue, and the greatest relative increase would occur in imports of capital goods.

(c) Export requirements and the balance-of-payments problem

It is clear, therefore, that the external purchasing power of the Latin American countries will have to grow much more than in the past in

order to satisfy this demand for imports of goods and services. This growth will depend on three principal sources: (i) volume and diversification of exports; (ii) evolution of the terms of trade; and (iii) possible extend of external investment and financing. Thus, for example, if it is assumed that the terms of trade will remain at their 1976 levels, and that the ratio between net external financing—equivalent to the deficit on the current account of the balance of payments—and the domestic product will remain similar during the 1980s to that recorded by the countries during the past decade, then for the region as a whole revenue from exports of goods and services should increase at a rate similar to that of imports (8% annually during the 1980s), while net external financing will represent an average of 2.8% of the gross domestic product, and about one-fifth of exports of goods and services by 1990. Obviously, export needs will be lower if there is more net external financing, and the same would apply if the terms of trade improved. It has therefore been calculated that the required exports of goods and services will grow at 7% per year, if net external financing increases still further during the 1980s to reach 4.4% of the gross domestic product by 1990. This coefficient will be even higher in the following decade if exports continue to grow at the same rate. Thus, servicing and profits of foreign debt and investment would tend to reach very high levels with respect to current export earnings, leading to situations which it would be difficult to manage in practice; this would also imply a structure of economic growth in which the domestic saving coefficient would tend to decline as economic growth accelerated. Naturally, this structure could improve appreciably with favourable changes in the terms and conditions of the transfer of real resources to the developing countries. In any event, it is clear that the growth of exports and the improvement of the terms of trade are basic factors in this economic growth scenario.

This raises the problem of examining the projections of the external demand required to satisfy Latin America's export needs and the nature and scope of the structural changes which should be encouraged in the international order so as to boost the growth of the

trade of the developing countries. There are various projections based on different hypotheses concerning world economic growth and in particular the growth rate of the industrial countries.

The secretariat too has studied this question, and its basic global findings are broadly in agreement with other projections if the comparisons are made in similar conditions. One study, essentially based on historical trends, gives the following results: if world trade grows in the 1980s at a rate of 7% or slightly more and the region follows past trends, the growth rates of exports will also be similar to those in the past: around 5% per year. This implies a continuing decline in the region's share of the trade in primary commodities and fuels, while manufactured products would increase at a rate similar to that of world trade (8% to 9% annually).⁶

As was pointed out above, however, in the course of the 1970s the Latin American countries made great efforts to change past trends by means of deliberate policies to promote and diversify exports, and the trends have undergone a number of important changes. It is interesting to note that in the last three years (1977-1979) Latin American exports (excluding Venezuela) grew at an annual rate of nearly 10%.

The projections thus reflect a great difference between the growth rates of exports and those of imports, leading to a large and increasing deficit in the trade balance. However, it is necessary to recall what was said earlier about the fact that these results stem from projecting the slow growth rate of primary exports and their declining share of world trade; the trends

of fuel exports, which may now change considerably with Mexico's new position as an oil exporter; and past trends in Latin America's share of manufacturing exports. This structural picture will necessarily change in line with the larger size and altered conditions of production and supply of the Latin American economies, as assumed in the scenario under consideration, and with the structural changes which must be encouraged in the world economy with a view to the establishment of a new international economic order.

A number of quantitative studies have been made of the possibilities and policies for reducing this potential trade account deficit, and of its effects on the economic growth rate. It is quite clear that external financing cannot be the main means of covering this deficit, which is aggravated by the outflows stemming from payments of profits and servicing on foreign investment and debt. This would not be viable because of the size of the deficit, and would not be sensible because of the reasons given above in connexion with the significance of the deficit and the adverse effects which a policy of that kind would have on domestic saving.

Broadly speaking, the complementary global aspects which should be taken into account are: (i) the growth and diversification of exports surpassing the results of the trend projections; (ii) the improvement of the terms of trade; (iii) the possibilities of holding down imports below projected levels; and (iv) the use of more external financing than is proposed in the prospective studies.

The growth of exports should be considered from the standpoint of their composition and markets. With regard to the growth rate and structure, it was pointed out in chapter I that the process of diversification of exports underway since the end of the 1960s was stepped up during the 1970s and that this occurred both in the case of primary commodities and thanks to higher exports of manufactured goods. Nevertheless, for the region as a whole exports of manufactures only represent about 20% of the total, and are concentrated in the large and some medium-sized countries. Naturally, this export structure must change in favour of a higher share of manufactures, including branches with more advanced technology content,

⁶In the quantitative prospective studies prepared by the Department of International Economic and Social Affairs (DIESA) at Headquarters on the basis of trends in a more recent period, the highest growth variant (4) projects an annual growth rate of 5.7% for Latin American and Caribbean exports of goods and services. The World Bank, in its *World Development Report, 1979*, publishes the results of three projections of the growth of the world economy during the coming decade, defined as "base", "high" and "low", respectively. In the base projection, world trade in goods grows by 6% and exports of the developing countries by 6.5%; in the high variant, these figures are 7.3% and 7.6%, respectively. It should be noted that the growth rates of the gross domestic product of the industrialized countries are 4.2% and 4.9% for the same variants.

all of this in keeping with the transformation of production and technology which accompanies the economic development process, and with a development strategy aimed at maintaining a certain degree of external openness in order to favour the most efficient allocation of resources and the growth of productivity. The same reasoning, particularly in relation to resource endowment, applies to the greater growth which should be achieved in exports of primary commodities with an increasing degree of processing: in this case there is also the fact that these branches account for a large part of the total exports of the region, particularly in the medium-sized and small countries.

The substantial increase required in Latin American exports for the coming decade should therefore include the various branches of primary commodities with a higher degree of processing, new export flows and the growth and diversification of manufactures, which are the fastest growing international trade flows. It is well known that Latin America's share in world trade in primary commodities has been declining. These quantitative studies show that if the region maintained a specific share of that world trade and were allowed access to the markets of the industrial countries, this would suffice to permit its exports as a whole to increase at a significantly higher rate than in the past. In any event, manufactures should become the most dynamic Latin American export flows.

In recent years, about two-thirds of the value of total Latin American exports has been absorbed by the developed countries, as opposed to a little under 20% by the Latin American countries themselves, a little under 10% by the socialist countries and 4% by the other developing areas. In these circumstances, it is obvious that the achievement of the export targets required by the economic growth of the region will depend heavily, especially in the first stage, on their access and increased flows to the industrial countries which currently absorb such a high proportion of them, as indicated above. In turn this will depend on the growth of those countries' external demand, and in particular on deliberate policies aimed at removing the notorious restrictions of all kinds which limit access to their markets, and

on policies to restructure their domestic economic activity and bring about the basic conditions for a new, expanding place for the developing countries in the world economy.

These studies also show very clearly that despite the positive results which may be achieved in increasing and diversifying exports to the developed countries, the growth of intra-regional trade also appears to be a necessary condition for accelerating the development of the Latin American countries. This trade has been growing faster than trade with the rest of the world. At the beginning of the 1960s, exports to the region represented only 8% of the total, as against 17% today;⁷ furthermore, the composition of these flows of exports of goods is different from that of trade with the rest of the world, since they predominantly consist of new branches of intermediate manufactures and capital goods.

It is likewise clear that growth of trade with the socialist countries and other developing areas should be another complementary objective, in order to make use of the enormous potential of those areas. Besides, these objectives are included in national policies and CEPAL is carrying out basic studies in this field.

The fluctuations and deteriorations of the external terms of trade have major effects—favourable and unfavourable—on the balance of payments and the course of investment and real income in the Latin American countries. These prospective studies assume constant terms of trade at the 1976 level. An account of the relative position of the indexes during the 1970s was given in chapter I above. It may be noted that the terms of trade tended to improve in 1977 with respect to 1976, but worsened in 1978 and 1979. The outlook for the terms of trade is far from encouraging, particularly in the short and medium run, due to the increasing cost of imports from the industrial countries, the higher prices of fuels, and the instability and uncertainty regarding the prices of primary commodities. To the extent that the terms of trade deteriorate, the balance-of-payments problems will also worsen. Hence the crucial

⁷These figures do not include the countries and territories of the Caribbean, with the exception of Haiti and the Dominican Republic.

importance attached by Latin America and the developing countries to achieving stable and remunerative real prices for commodities in international markets.

The model used in these economic development scenarios assumes that imports will grow relatively faster than the domestic product. The product-elasticity of the projected imports is lower than was actually the case in the first years of the 1970s; however, the models present a relatively open growth structure in comparison with what occurred in past decades when the import substitution model prevailed.

The question which arises with regard to the potential deficit under examination is whether it would not be possible to secure the proposed economic growth with an import elasticity less than that resulting from these studies. This is a crucial question at a time of growing protectionism and resistance on the part of the developed countries to the idea of adopting effective measures to expand trade with the developing areas in the framework of the restructuring of the world economy. While it would be impossible to give an exact technical answer on the basis of the global analysis under consideration, some general remarks should be made on this point. In the first place, there are a number of reasons for believing that within the framework of the prevailing style of development, the import elasticity resulting from the quantitative studies may be considered reasonable from the standpoint of a given structure of economic efficiency. However, another relatively less open growth structure could be imagined, which would involve a somewhat lower import coefficient, and along these lines it might be considered that at least the large and some medium-sized countries are in a better position than

in the past, due to the industrial capacity they have acquired and their larger domestic markets, to advance in the substitution of imports of essential intermediate and capital goods, and thus achieve an overall relative contraction of their import needs.

The experience of the contraction or slow growth of imports in the last four years could be taken as an indication of their "excessive" growth in earlier years and of the feasibility of holding down the import coefficient at least in the next stage of economic development. Obviously, however, the experience of this period is relatively short, and has been marked by special situations, so that it does not permit conclusions to be drawn about the longer-term results of that kind of policy. In addition, a policy of this kind should unquestionably be considered in the context of the growth of intra-regional trade, since this would favour a more efficient solution than a contraction of the import coefficient at the national level.

Finally, this discussion of the possible reduction of imports below the projected levels also calls for a mention of the effects of essential changes in the development strategies, leading to income redistribution and social policies very different from those which currently prevail. It is usually believed that in such situations import needs could decline in relation to specific global economic growth rates, but this would undoubtedly have to be the result of substantial changes in development and life styles. Further study should be made of this point in relation to concrete situations, because it may also be supposed that development strategies differing from the prevailing ones would mainly lead to major changes in the composition of imports and their social destination, rather than in their total volume.

III

Goals and objectives of Latin American development and the new IDS

1. *The preliminary outline of the new Strategy and the need to incorporate regional machinery for its implementation*

(a) *The preliminary outline of the new Strategy*

Resolution 33/193 provides that as far as its conceptual content is concerned, the new Strategy "should be formulated within the framework of the New International Economic Order", and indicates the fundamental objectives the Strategy should pursue at the world level and at the levels of international economic co-operation, co-operation among developing countries, and the economic and social development of the developing countries.

Although agreement has not yet been reached on the outline of the Strategy and both the formal and conceptual aspects are the subject of intensive discussions and negotiations of a technical and political nature, the following preliminary outline may be taken as a guide:

- I. Preamble
- II. Goals and objectives
- III. Policy measures
- IV. Machinery for the implementation of the Strategy
- V. Review and appraisal of objectives and policy measures
- VI. Mobilization of public opinion.

At its last meeting the Preparatory Committee discussed a preliminary outline of the preamble, but important conceptual aspects of the new Strategy have yet to be approved. It is not easy to establish a clear criterion for deciding what goals and objectives should be included in section II without partially repeating the proposals which might be considered in section III on policy measures and institutional reforms, and these difficulties arise above all when the objectives are expressed more in a qualitative manner. The present document will suggest a pragmatic solution, taking as a refer-

ence experience with the Strategy for the past decade and the provisions of resolution 33/193.

Section IV proposes for consideration three basic instruments for the implementation of the Strategy, namely: (i) regional programmes of action for the implementation of the Strategy; (ii) the negotiations which it has been proposed to carry out in the United Nations, the specialized agencies and other bodies, and (iii) national development plans or programmes. Section V deals with the machinery which will be established for the periodic review and appraisal of the objectives and policy measures; this is a subject which will have to be examined in the light of the experience of the past decade, in order to ensure the greatest possible practical effectiveness. Finally, it is felt that since the mobilization of public opinion is of the greatest importance, it should be highlighted in a special chapter.

The present document will deal with the targets and objectives from the Latin American standpoint, and make a number of suggestions about new aspects of the implementation referred to in section III. It will begin with this section, since the ideas put forward have implications for all the other issues, and particularly the identification and formulation of the targets and objectives.

(b) *Three basic mechanisms for the instrumentation and implementation of the Strategy*

The interesting question has been raised of the consideration which should be given in the new IDS to specific aspects and issues of the regions and countries, above all in relation to social development, regional co-operation, co-operation between different developing countries or areas, mobilization of national resources, regional or subregional infrastructure plans and problems linked with the protection of the environment. This is particularly impor-

tant bearing in mind that the previous Strategy was rightly criticized for the global nature of its targets and objectives and the general character of its proposals and policies. As a result, many aspects of it are very difficult to implement in practice, and in many cases it fails to provide adequate reference points for carrying out the periodic review and appraisal of its implementation, due to the variety of situations and perspectives existing in the countries and regions of the developing world.

A practical solution, and one which would represent a considerable step forward in comparison with the previous Strategy, would be that once the new Strategy has been approved by the General Assembly the regional economic commissions should prepare regional programmes of action to implement it in their region. Thus the regional economic commissions, working at the level of their governmental bodies, could expand the general proposals and make them more specific, taking into account the particular conditions and the priorities of each region, particularly as concerns national development policies, objectives and basic targets, regional co-operation and co-operation with other developing areas, and other issues considered worthy of inclusion. The regional economic commissions could also consider major regional or subregional projects.

In this connexion, it is very important to recall the attitude of the Committee for Development Planning as set forth in paragraph 117 of the report of its fifteenth meeting (March-April 1979), which states that "the adoption of an International Development Strategy for the Third United Nations Development Decade by the General Assembly in 1980 should not be an isolated act. Rather, it should be followed by a continuing evolution of regional and subregional strategies to elaborate more specific goals and measures of policy in relation to regional needs and circumstances. The dialogues conducted among governments for this purpose in regional and subregional forums should pave the way for enhanced economic and technical co-operation among members of the relevant regional or subregional bodies. The inter-governmental forums of the United Nations regional commissions are already available for this purpose. They should serve as one of the

main instruments for designing and implementing regional and subregional programmes of action, thereby enhancing the operational content of the Third Development Decade".⁸ The Committee for Development Planning also stresses the need to select a limited number of major regional and subregional projects, with the participation of the regional economic commissions.

For its part, CEPAL has already taken decisions on this question at its most recent session. Resolution 386 (XVIII) on the preparations and contributions by CEPAL for the new Strategy formulates a number of recommendations to governments and entrusts the secretariat with various tasks which include in particular the following:

(a) The secretariat should prepare a regional action programme aimed at instrumenting the implementation of the Strategy to be adopted by the General Assembly;

(b) CEGAN should be convened before the end of 1979 and during 1980 to evaluate the progress made in the preparatory activities for the new Strategy carried out by the Preparatory Committee, and also the work of the CEPAL secretariat in this field;

(c) The member governments of the developing countries of the region should prepare plans and programmes which include the formulation of economic and social development objectives and goals for the forthcoming decade, together with their relevant strategies and policies, suitably linked with the instrumentation and implementation of the Strategy as far as the Latin American countries are concerned;

(d) At the nineteenth session of the Commission, which will be held early in 1981, a regional action programme for the instrumentation and implementation of the new International Development Strategy to be adopted by the General Assembly should be considered, and the development decade for the countries of Latin America be proclaimed.

To the extent that some degree of compatibility can be achieved between the International Development Strategy at the world lev-

⁸E/1979/37.

el, the programme of action at the regional level, and the programmes or plans of governments at the national level, highly effective practical machinery will have been set up. It would unquestionably be very useful to examine the implications of regional programmes of action and the programmes or plans to be adopted by governments, in order to secure this compatibility between the three levels.

In addition, it is suggested that this chapter of the Strategy should include the decisions adopted on the programme of negotiations under consideration by the General Assembly in accordance with the draft resolution of the Group of 77. In brief, there seem to be three important elements, *inter alia*, which would serve for the implementation of the Strategy and the formulation of its periodic reviews, namely: (i) the programme of negotiations; (ii) the regional plans of action prepared by the regional economic commissions; and (iii) the national development plans or programmes. If the new Strategy is conceived in this context, the technical and political discussions within the General Assembly could certainly be simplified and facilitated.

2. Preliminary statement of goals and objectives of the new Strategy in relation to Latin American development

(a) The problem of determining goals and objectives

Given the interrelationships among the different topics to be covered by the IDS, it is difficult to find a clear criterion for identifying what should be included in the chapter on goals and objectives as against what should be covered by the chapter on policy measures. Thus, for example, it may be considered that the fundamental objective of the IDS is to accelerate economic development and increase the social welfare of the entire population of the developing countries and that everything else, such as investment, saving, sectoral production, foreign trade, the transfer of resources, and so forth, represents constraints which should be taken into account or means, instruments or agencies needed to achieve this basic goal. Obviously, proposals at this level of ab-

straction would undermine the practical usefulness of the Strategy, since it is essential to establish targets and objectives of different levels or dimensions which serve the triple purpose of indicating the scope of the transformation and growth to be achieved, suggesting the nature of the policy measures and institutional reforms to be introduced, and providing as coherent an outline as possible for appraising the progress made and evaluating the effectiveness of the proposed policy measures.

The relevant section of the Strategy for the past decade sets forth two classes of targets and objectives: (i) quantitative targets for the developing countries as a whole regarding the growth of the global and per capita domestic product, agricultural output, manufacturing output, domestic saving and exports and imports; (ii) qualitative objectives of social development relating to the distribution of income and wealth, employment, education, nutrition, housing, child welfare, the participation of young people and the integration of women. It thus appears that the approach adopted was to consider only targets and objectives relating to economic and social issues which should characterize the growth and transformation sought for the developing countries. Other targets and objectives such as, for example, the quantitative target for the transfer of resources, appear in the major chapter on policy measures.

Various possible solutions may therefore be considered: one would be to devote this section exclusively to quantitative economic growth targets and social development objectives of the developing countries, introducing where necessary other targets and objectives of a quantitative or qualitative nature concerning other subjects in the chapter dealing with policy measures. Another possibility would be to choose the most important aspects of the Strategy at the world, regional and national levels, for which purpose it would be necessary to define these targets and objectives to serve the three purposes described in the preceding paragraph. This is certainly the most appropriate procedure, especially in the present circumstances, where the Strategy is attempting to introduce structural and institutional reforms aimed at shaping a new international economic order. This represents a fundamental

difference in comparison with the Strategy for the second decade, which was conceived as a programme of action to be carried into practice within the framework of the existing order.

In keeping with this broader view of the significance of the targets and objectives, and taking into account the experience of the past decade and particularly the provisions of resolution 33/193, there follows an outline of the different areas for which it is thought desirable to define quantitative targets or qualitative objectives in the new Strategy. Six areas are identified, namely: (i) economic development; (ii) social and human development; (iii) self-reliance and mobilization of national resources; (iv) restructuring of the world economy; (v) regional co-operation, and (vi) co-operation among developing areas and countries.

The economic development targets and objectives are mainly quantitative and in principle concern well-known areas as described below. It is suggested that they should include objectives or targets for energy, in view of the enormous importance of this sector for the growth and structure of the social and economic process. This objective might refer to the various aspects of production, conservation and economy and the need to promote new energy sources. The possibility should be considered of establishing quantitative targets which could refer to the forthcoming decade in some aspects and to the longer term in others.

With regard to social and human development, five kinds of proposals are suggested: (i) a global objective concerning the social aims of economic development, and the social changes and improvement of income distribution to be achieved; (ii) an objective concerning the elimination of extreme poverty; (iii) specific objectives for employment, nutrition, education, health and housing; (iv) objectives for child welfare, the participation of young people and the integration of women; and (v) objectives for the conservation of the environment.

Naturally, these are areas for which it is difficult to establish quantitative targets of a practical nature for the entire developing world, given the diversity of situations and outlooks and the great differences in the national strategies and policies followed in this field. The strategy should certainly indicate the ob-

jective or goal to be pursued in each of these areas and establish in general terms the period within which the proposed aims should be attained. It should also be explicitly stated that in their plans and programmes the regional economic commissions, in co-operation with the specialized agencies and above all the countries, should define more precisely the conceptual content of the objectives and the time period for achieving them. Very broad proposals regarding objectives in this field have been put forward at regional and international conferences, and they all coincide in referring to the achievement of these objectives within the forthcoming decade and the 1990s. Despite their general nature, these proposals have the enormous virtue of indicating the orientation which should guide action to attain the essential goals of development.

With regard to self-reliance and the mobilization of national resources, the following is suggested: (i) a qualitative objective regarding cultural identity and the development of endogenous life-styles; (ii) the full mobilization of human and material resources; (iii) the acceleration of investment and formation of the infrastructure and perhaps a target for the domestic investment coefficient with respect to the product; (iv) the objective of improving productivity in the economy, restraining consumerism and increasing saving in order to promote accumulation, which could also be expressed as a target for the saving coefficient or changes in this coefficient.

The proposals on targets and objectives in relation to the restructuring of the world economy have been formulated in order to round off the picture in line with the proposed criterion and include in this section most of the provisions of resolution 33/193 regarding objectives. Thus, in principle, proposals are suggested on the following issues: (i) the need to restructure the world economy in keeping with the goals described below; (ii) the international trade of the developing countries, establishing targets for their exports and imports and objectives for the diversification of exports and in relation to improving and stabilizing the real prices of commodities; (iii) the transfer of resources to the developing countries, and (iv) the transfer of technology, another topic referred to in res-

olution 33/193. Obviously, this question and others such as transnational corporations and the international monetary system could be dealt with entirely in the chapter on policy measures.

Regional co-operation and co-operation among developing areas and countries should play a very important role in the implementation of the new Strategy. Dynamic progress in this area will make an important contribution to the shaping of a new international economic order. As explained in chapter II of this document, the expansion of Latin American trade and economic co-operation both within the region and with other developing areas is a necessary condition for more rapid economic development. Resolution 33/193 emphasizes that the new IDS "should contribute to the promotion of the objective of national and collective self-reliance of the developing countries, especially through the promotion and support of economic and technical co-operation among themselves". These issues will undoubtedly be considered in the section of the Strategy covering policy measures, but because of their importance and their direct link with the regional action programmes which have been proposed, it is considered desirable to incorporate qualitative objectives of a general nature, without prejudice to the indication and possible establishment in the regional plans of action of quantitative targets, such as, for example, targets relating to the expansion of intra-regional or subregional trade.

(b) *Outline of targets and objectives*

Concerning economic development:

(i) general objective concerning more rapid economic growth and greater social welfare for the whole population;

(ii) growth targets for the overall and per capita gross domestic product of the developing countries as a group;

(iii) special economic growth target for the relatively less developed countries;

(iv) general objective concerning the diversification and transformation of the economies of the developing countries;

(v) target for agricultural output;

(vi) target for manufacturing output, and
(vii) energy objectives: energy production, conservation and saving, and diversification of energy sources. Possible determination of quantitative targets.

Concerning social and human development:

(i) general objective concerning social development, indicating the essential aims of economic growth: greater social welfare for the entire population and full participation of the latter in the development process. Improvement of the distribution of income and wealth;

(ii) objective concerning eradication of situations of extreme poverty and indigence;

(iii) specific objectives on employment, nutrition, education, health and housing;

(iv) objectives concerning the welfare of children, the participation of young people and the integration of women, and

(v) objectives concerning protection of the environment.

Concerning self-reliance and mobilization of national resources:

(i) general qualitative objective concerning cultural identity and the development of endogenous styles and ways of life;

(ii) general objective concerning the full mobilization of national human and material resources as the principal basis of support for endogenous growth;

(iii) objective concerning the acceleration of investment and formation of infrastructure, with possible indication of a quantitative target in terms of the domestic investment coefficient, and

(iv) general objective concerning the raising of productivity, the restraining of consumerism and the expansion of saving to stimulate accumulation. Possible establishment of a target for growth in the savings coefficient or concerning the magnitude it should reach by the end of the decade.

Concerning the restructuring of the world economy:

(i) proposals of general scope concerning the need to restructure the world economy, indicating objectives and goals, namely:

— changes in the structure of production and raising of the share of the developing countries;

— reduction of differences in per capita income between developed and developing countries;

— structural modification of the trade relations between developed and developing countries;

— dynamism and stability of the world economy;

— guaranteeing sustained growth in the developing countries;

(ii) proposals concerning the external trade of the developing countries, covering the following aspects:

— target for the developing countries' imports;

— target for the developing countries' exports;

— general objective concerning necessary diversification and changes in the flows of exports of the developing countries;

— general objective concerning the improvement of the real prices of primary commodities and their stabilization at remunerative levels;

(iii) proposals concerning the transfer of resources to the developing countries:

— general objective concerning the need to achieve a genuine transfer of resources to contribute to the growth and transformation of the structure of production of the developing countries, without prejudice to recognition of the special situations which may arise in working towards other essential needs of the population;

— indication of quantitative targets;

(iv) general objective concerning the transfer of technology (this issue might be referred to, in all its aspects, in the chapter on policy measures).

Concerning regional co-operation:

The IDS might indicate the fundamental objectives which should be achieved as regards economic co-operation, revitalization of the regional and subregional integration processes, multinational projects, expansion of reciprocal trade, and financial, scientific and technologi-

cal co-operation. The regional action programmes to be prepared by the regional economic commissions would specify more precisely targets and objectives of a qualitative and quantitative nature in accordance with the specific circumstances of each region.

Concerning co-operation between developing areas and countries:

In general terms, the same pattern might be followed as that indicated for regional co-operation.

3. Final comments on the targets of the development scenarios for the forthcoming decade

Before outlining some main conclusions regarding the economic development targets which can be drawn from the studies on the development scenarios for the forthcoming decade, two important clarifications should be made: (i) the purpose of the studies contained in this document is not to establish here and now the growth target to be fixed for Latin America for the coming decade, but rather to contribute information and technical analysis to the discussion currently underway and very tentatively suggest some reference points in a number of areas so as to provide orders of magnitude or constraints for the quantitative targets and objectives; and (ii) every global target given in the Strategy for the region as a whole or for the developing world as a whole is necessarily a weighted average of widely differing situations and outlooks, and thus an aggregate target in principle assumes the existence of countries or groups of countries above or below the target.

Of the three economic growth scenarios studied by the secretariat the intermediate growth scenario assuming a growth of nearly 7.5% for the region as a whole was used for the more detailed prospective analysis in chapter II of this document. It was felt that this scenario could provide an illustrative framework shedding light on the nature of the changes and the scope of the policies needed at the national and international levels to step up economic development, as well as supplying useful technical information for when the normative economic

growth targets are discussed. It is therefore worth outlining some aspects of the quantitative analysis so as to be able to appreciate the implications of the scenario:

(i) The scenario represents an intensification of the growth and economic and technological transformation of the economy of the region in comparison with trend projections, which give an annual growth rate of the gross domestic product of 6.3% for the region as a whole. It should also be borne in mind that the growth rate assumed in the scenario (7.5%) was actually achieved by the region as a whole in the first four years of the present decade, and while it is true that this was largely accounted for by only a few countries, whose present prospects are less favourable than at that time, it is nonetheless true that the outlook for other countries has considerably improved;

(ii) The national development plans of 15 countries of the region prepared in the mid-1970s set growth targets for the gross domestic product which give a simple arithmetic average of 7.6% annually and a weighted average growth rate of 8.8% per year;

(iii) A target growth rate of 7.5% seems necessary to increase employment at the same rate as the growth of the economically active population, again for the region as a whole. This is the outcome of projections of the dynamic trends currently to be observed in the transformation of technology and production in the region. In other words, in these circumstances the problem of unemployment cannot be solved within a reasonable period, given the high rates of unemployment and underemployment of labour;

(iv) To achieve the growth target of this scenario for the region as a whole would involve a considerable effort on the part of many countries, especially in view of the unfavourable circumstances prevailing in recent years, which have led to slower economic growth. Furthermore, as was pointed out in chapter II, major structural changes must take place in the international economy in order to allow significant growth of income from exports of goods and services;

(v) On the basis of the preliminary results of the quantitative studies carried out by the Department of International Economic and So-

cial Affairs (DIESA) at Headquarters, the Committee for Development Planning proposed in its *Report on the sixteenth session* (7-16 January 1980) an average annual rate of growth of the gross domestic product of approximately 7% per year for the developing countries as a whole and approximately 6% per year for the group of lower-income countries, so that the per capita income of the latter would double by the end of the century. Although the corresponding analysis has not been carried out, it is highly likely that the 7.5% rate for Latin America falls near the upper limit that could be attained by groups of developing countries.

The normative growth target for the Latin American agricultural sector seems to be a little over 4%, or around 4% in value-added terms. This would seem to be the preliminary conclusion of the prospective studies carried out by CEPAL and FAO. The report of the Committee for Development Planning proposes a target of approximately 4% per year for gross output in the 1980s, both for the lower-income countries and the other developing countries.

Manufacturing industry in the region should grow at a rate of 8.5% according to provisional estimates. This represents a considerable acceleration from the trend projections, which give an estimated rate of 7.3%. The Committee for Development Planning proposes an acceleration of the rate.

In the region as a whole it will be necessary to invest a little over one-quarter of the gross domestic product. This proportion is similar to what is found in the national accounts of the region as a whole in recent years. It should be noted, however, that in many countries, especially the medium-sized and small ones, this calls for a very large increase in the domestic investment coefficient.

The gross domestic saving coefficient will be about 23% of the product for the region as a whole if the relationship between net external financing and the gross domestic product recorded during the past decade continues to hold good. Here again, of course, many countries will have to make a considerable effort to raise their saving coefficients.

Imports of goods and services will have to grow faster than the product. For the region as a whole an annual growth rate of a little over 8%

is estimated on the basis of provisional calculations. It is thus easy to infer that the growth of exports of goods and services must be very dynamic. If the coefficient of net external financing in relation to the gross domestic product recorded on average during the past decade holds good during the 1980s, exports of goods and services will have to grow by about 8% annually. Obviously, this increase will be smaller if the share of external financing increases, but this would not be a viable solution for many countries unless the terms and conditions of the financing undergo an appreciable change. At all events, exports of goods and services will have to grow much more than in the past. In this

connexion it is worth stressing the notable recovery in the growth rate of exports in the period 1976-1979. These prospective studies clearly show the problem of the external sector in relation to the acceleration of the growth rate for Latin America. What is particularly clear is the need to restructure the international economy in order to broaden and diversify access to the markets of the developed countries and expand trade with other non-traditional areas and, especially, the enormous importance of economic co-operation and the growth of reciprocal trade within the Latin American area and with other developing areas and countries.

The opening up of Latin America to the exterior

*Aníbal Pinto**

In an article which appeared in issue No. 9 (December 1979) of the *CEPAL Review*, the author analysed the internationalization of the world economy and its significance and consequences for the periphery. As a follow-up to that article, and within the same general framework, he now raises the controversial question of Latin America's opening up to the exterior.

After a brief recapitulation of salient past developments, he considers future prospects and their implications for the structure and tendencies of external relations. He then examines the reasons for, varieties of and dangers in the policy of openness, as well as the significance, options and problems of a strategy founded on the development of industrialization and the achievement of a new form of integration into the world economy.

His basic argument is that the intensification of exports, particularly of manufactures, is a necessary and possible condition for stimulating industrialization in Latin America and improving its position in the world economy. For that reason he cautions against those policies of openness which aim at a radical reorientation towards an 'inward-directed' pattern of development, maintaining that export promotion should be complemented by expansion of the domestic market and regional integration, and should be conceived within the framework of the process of industrialization and development.

Consequently, present circumstances, as well as those which are likely to exist in the future, enable the author to assume the viability of an economic growth strategy including among its requirements the sustained expansion of exports, although at the same time, he does not deny the importance of other factors which complicate the situation, such as emergent protectionism in the centres and the political capacity to strengthen regional links, negotiate with the transnational corporations and guarantee the State a guiding role.

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I

Background and prospects

1. *Outline of developments since the 1950s*

In the first place, the pattern of trade relations from 1950 until recently shows both the considerable growth of export and import flows (particularly after the mid-1960s) and, on the other hand, the fact that this growth only represented a partial return to the degrees of openness to the exterior which prevailed at the beginning of the period 1950-1977. This is also more or less true of the trends in the terms of trade.¹

Secondly, it is clear that financial flows followed a very different course, increasing substantially—even during the difficult international period following 1973—and changing in some fundamental regards (for example, the increase in the private component of the flows). The main consequence in recent years has been the dependence of a considerable proportion of imports upon external financing and the absorption of a large proportion of export earnings by debt servicing. In addition, there were more moderate changes in the relationship between the regional product and debt, although here again there was a clear deterioration over the period.

As a result, a very troublesome vicious circle has arisen in which the growth of imports has called for a rising amount of external financing, the servicing of which in turn absorbs increasingly large proportions of the value of exports; despite the growth of the latter.

These circumstances raise clear but difficult choices, especially if the underlying situation remains the same or grows worse. On the one hand, to hold down the growth of imports in order to reduce the burden—and vulnerability—involved in the absorption of export earnings by rising service payments can unquestionably affect the rate of economic development, with easily foreseeable consequences, whatever opinion one may hold of that indicator's significance. On the other hand, if this

¹Quantitative information may be found in CEPAL, *Economic Survey of Latin America, 1978*, vol. II (E/CEPAL/G.1103/Add.1), Part Three.

approach is rejected and it is desired to maintain the growth of imports —albeit at more moderate rates— it will be necessary to secure either more external financing or a more vigorous growth of exports —or both at once, in varying combinations. The discussion which follows must be placed against this background.

2. *The prospects for external relations*

In embarking on this part of the article, it may be useful to start from the central idea that the process of internationalization of the world economy (and society) will continue, as will that of the steadily growing linkage of Latin America with the exterior and within itself. Naturally, the possibility that the process will lose ground or fail to make headway —as has occurred in other periods and is suggested at present— cannot be ruled out, but the long-term outlook does seem to lie along those lines.

(a) *Separation from and linkage with the international economy*

It must be admitted that the above premise runs counter to a position which became quite widespread in the 1960s and is still held in some circles in the periphery, although it is now less prominent in Latin America. We refer to the school of thought which advocates 'delinking' from the centres and from the global system in which they predominate.

In some of the best studies of this question this dissentient approach is summarized as follows:

"...the argument is not just that the international links are the conduits through which the dependant country is drained of its surplus for the benefit of the dominant countries. The international links also penetrate and deform the internal socio-political structures of the peripheral country, leading to the waste and misallocation of whatever is left behind by the foreigners. A decreasing number of delinkers argue that under these circumstances the dependent country is unlikely to industrialize and certainly will not be able to develop its heavy and capital goods industries. Most delinkers will now admit that dependent industrialization and growth are possible, but they

argue that such processes will feature not only the polarization and unevenness of classical capitalist expansion but an exaggerated and even more monstrous version of it"².

Without stopping to make a detailed analysis of this approach, it is worth pointing out that in the work of some of its more representative advocates³ this attitude forms part of a historical approach to the problem inspired to some extent by that well-known aphorism "reculer pour mieux sauter".

Thus, one of them writes:

"Saying that development of the periphery requires the setting up of autocentric national structures which break with the world market means expressing an undeniable contradiction. Capitalism has unified the world, in its own way, by imposing upon it the hierarchy of centre and periphery. Socialism, which cannot exist unless it is superior to capitalism in every way, cannot be a juxtaposition of national socialisms. It must organize the world into a unified whole without inequality, and cannot be completed until it has attained this objective. However, the road that leads to this end passes by way of the self-assertion of those nations that are victims of the present set-up, and which cannot assemble the conditions for their prosperity and full participation in the modern world unless they first of all assert themselves as complete nations."⁴

What is more, this position has been undermined by the recent tendency to become integrated in the world market displayed by the socialist countries —including China, whose past experience was often given as an illustration— or suffers from the rather unattractive nature of its concrete examples (such as Burma, Cambodia or Albania).⁵

² Carlos F. Díaz-Alejandro, "Delinking North and South: unshackled or unhinged?", in Albert Fishlow and others, *Rich and Poor Nations in the World Economy*, (New York, McGraw-Hill, 1978), p. 103.

³ See, for example, S. Amin, *Accumulation on a World Scale: a Critique of the Theory of Underdevelopment*, vol. 1 (New York, Monthly Review Press, 1974), and A. Emmanuel, *Unequal Exchange: a Study of the Imperialism of Trade* (New York, Monthly Review Press, 1972).

⁴ Amin, *op. cit.*, p. 33.

⁵ The case of Japan has also been adduced in these arguments, but this is to overlook, among other things, the

In brief, the discussion has centred on the paths which internationalization can or should follow, particularly from the standpoint of the periphery and, within it, the Latin American universe which has long formed part of it, with the characteristics and consequences described above. In sum, emphasis has now shifted to the selectivity of the process, i. e., the forms of integration (or relative delinking) within the prevailing current.⁶

(b) *A basic imperative: the imported component*

Going straight to the heart of the matter, it might be said that the most concrete reason why Latin America should continue fostering and developing its links with the world economy is its growing need and demand for a variety of imported goods both now and in the future. This is the prime and most obvious reason for internationalization. Of course, it has its evident counterpart in the need of a suitable quantity of foreign exchange which must be provided by exports and/or external financing.

A recent CEPAL study on this question provides a tentative estimate of the region's future needs of imports of goods and services, assuming a growth rate of 6.4% a year (slightly below the rate for the period 1965-1974) and income elasticity of demand for imports somewhat lower than in that period.⁷ Needless to say, these are not forecasts and it would be perfectly legitimate to start from other estimates. However, the figures in table 1 are suffi-

imperialist dimension of its economic transformation prior to the Second World War, although its relative delinking from the western centres in a number of aspects which cannot be enumerated here is undeniable.

⁶ In the study mentioned earlier, C. Díaz-Alejandro recalls a well-known article by J. M. Keynes ["National self-sufficiency", *The Yale Review*, (June 1933)], in which, together with expressing his sympathy with those who would minimize, rather than those who would maximize, economic entanglement between nations, particularly in the financial field, he warns that "it should not be a matter of tearing up roots but of slowly training a plant to grow in a different direction" (Díaz-Alejandro, *op. cit.*, pp. 95 and 117).

⁷ CEPAL, "Long-term trends and prospects of the development of Latin America" (E/CEPAL/1076), Santiago, 1979.

ciently striking to stand the test of reasonable objections.

Table 1

LATIN AMERICA: IMPORTS OF GOODS AND SERVICES
(Millions of dollars)

	Current prices 1970 dollars	
1970	17 420	17 420
1976	51 302	25 703
1980	81 237	32 431
1990	261 957	63 916
2000	741 163	121 783

Source: CEPAL, *Long-term trends and prospects of the development of Latin America* (E/CEPAL/1076).

As may be seen, even at constant prices the value of purchases abroad will very nearly double in each decade considered.

The buoyancy of this demand is shown by its growth rates (see table 2). While the rates calculated for the years 1980-2000 are below those for 1965-1974, which were exceptional in many respects, they are almost double those recorded in 1950-1960. As may be seen, it is estimated that such growth of imports will be particularly strong in the larger countries.

This picture should immediately be contrasted with the prospects on the export side, since exports are at once the primary means making possible these flows of imports, a telling component of global demand and the other basic channel of internationalization.

Looking once more at table 2, it is easy to see that here too the region is expected to develop dynamically, at rates above those of both 1950-1960 and 1965-1974, this latter period being that in which the two flows were most asymmetrical. In any event, there is one striking difference among the groups considered: the case of the group of medium-sized countries, whose exports increased very little in volume during the second period, although they had grown considerably in 1950-1960.⁸

⁸ This is primarily due to the influence of the volume of oil exports by Venezuela, which were deliberately held down to conserve reserves.

Table 2

LATIN AMERICA: ANNUAL GROWTH RATES OF THE VOLUME OF IMPORTS AND EXPORTS

Period	Latin America		Large countries ^a		Medium-sized countries ^b		Small countries ^c	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
1950-1960	3.5	4.0	2.8	3.1	4.3	5.7	4.3	2.8
1965-1974	9.4	4.6	12.2	6.2	6.3	1.6	7.5	6.7
1980-1985	7.1	6.3	7.7	6.8	6.6	5.5	6.3	6.1
1985-1990	6.9	6.2	7.5	6.8	6.4	5.2	6.2	6.0
1990-2000	6.6	6.8	7.1	7.5	6.2	5.9	6.2	6.1

Source: CEPAL, *Long-term trends and prospects ...*, *op. cit.*

^a Argentina, Brazil and Mexico.

^b Colombia, Chile, Peru and Venezuela.

^c Bolivia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Paraguay and Uruguay.

(c) *Structural implications*

If we accept that the flows of imports and exports will increase considerably, it is necessary to ask how this may affect the structure of the external links of the region's economies, particularly from the standpoint of the future proportions which foreign supply and demand will represent in the overall system. In other words—to use the terms in which the question is usually phrased—does this mean that the region is shifting from a stage of inward-directed growth to a stage of outward-directed growth or unequivocal 'opening up' to the exterior?

From an overall viewpoint, the answer appears to be in the negative. It may be seen from the data presented in table 3 that the estimated import and export coefficients in 1980-2000 suggest a situation resembling that in 1970, more open from the standpoint of imports, and more closed from that of exports, and in both cases with lower levels than in the 1950s and 1960s.⁹

⁹With respect to the differences between the two coefficients—particularly marked in the case of the medium-sized countries—it should be remembered that these are primarily affected by the behaviour of the terms of trade, net external financing and payments of profits and interest on foreign capital. The study in question does not anticipate major changes in these factors from the region at standpoint, but it is assumed that the terms of trade of the me-

However, the data also show clear differences between the groups of countries. The levels of external linkage are lower in the larger economies (although these do show differences between each other which cannot be examined here), rise significantly in the medium-sized countries, and are highest in the small countries, where they are well above the levels recorded in 1950 and 1960.

There are many causes underlying these differences: it is almost tautological, for example, to mention the present and potential size of domestic markets. In this connexion, and because of its significance for a later discussion, it is worth recalling the distinction perceptively drawn by A. Lewis regarding the role of foreign trade in development, either as the 'lubricant' of the process or as its engine.¹⁰

In the case of the larger economies, the growth of exports is an essential condition for securing the increased volume of imports called for by the expansion of the global product, even though this is mainly destined for the domestic market—although, of course, this is not to underestimate the dynamic effect of external de-

dium-sized economies will improve appreciably (basically due to trends in Venezuela following the rise in oil prices), as will the external financing coefficient in the small economies (see E/CEPAL/1076).

¹⁰A. Lewis, "The evolution of the international economic order", Princeton University, mimeo, 1971.

Table 3

LATIN AMERICA: IMPORT AND EXPORT COEFFICIENTS WITH RESPECT TO THE GROSS DOMESTIC PRODUCT

Year	Latin America		Large countries		Medium-sized countries		Small countries	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
1950	15.7	14.0	12.8	10.4	23.2	22.3	18.2	18.6
1960	13.4	12.5	10.0	8.3	20.8	22.9	19.3	17.2
1970	11.5	11.3	8.3	7.7	16.6	19.0	22.8	19.8
1980	11.7	10.3	7.4	7.5	20.3	14.7	24.9	24.1
1990	12.5	10.3	8.6	7.6	22.5	14.7	26.7	25.4
2000	12.8	10.7	8.9	8.2	24.1	15.2	27.9	26.3

Source: CEPAL, *Long-term trends and prospects ...*, op. cit.

mand. Consequently, for these economies exports primarily act as a 'lubricant'.

In the economies with more or less limited domestic markets the situation is obviously quite different, since exports represent a considerable proportion of total demand and ultimately have a bigger effect on the growth of the economy. Thus they are closer to the 'engine of growth' image, although the role of the domestic market remains dominant.

Naturally, this distinction cannot be carried to extremes, but it is acceptable in general

terms and allows a variety of combinations in the case of concrete activities or countries.

This passing digression should not obscure out the basic conclusion regarding the question raised earlier, namely, that (bearing in mind the differences between the various groups) the outlook for vigorous growth of international links does not entail a substantial change in the structure or historical pattern of the process. In other words, inward-directed development will continue to predominate, both for the region as a whole and for most of its countries.

II

The opening-up process

1. *The reasons for opening up to the exterior*

The above data and the corresponding deductions appear to contradict some lines of thought and praxis which have recently gained great significance in Latin America and elsewhere. We shall begin by examining their general direction and the reasoning on which they are based, and then go on to consider some variants of them.

Broadly speaking, they can be summarized as sharing the premise that it is necessary to foster external relations, take greater advantage

of the opportunities arising from the international division of labour, and consequently attach priority to exports, imports and external financing.¹¹ All of this is covered by that familiar blanket term 'opening up to the exterior'.

What are the underlying reasons for this general approach?

¹¹ It should be noted that these concerns also arise in countries with very different styles of development and institutional systems, such as Cuba. Concerning the new guidelines of that country's economic policy in the 1970s, the *Economic Survey of Latin America*, 1978 states that

It is worth mentioning some of them in passing, although they are doubtless well known, since they have a place in this discussion.

(a) *The international setting and the stubborn external bottleneck*

Two elements appear particularly salient. One of these relates to the international setting, and the other to some issues which have troubled Latin American economic policy.

The first stems from the well-documented expansion of world trade following the war, and particularly during the period 1965-1973, the magnitude and significance of which can only be appreciated fully in the light of the conditions that framed the region's development in the prolonged period ranging from the Great Depression to the end of the 1940s.

The most important factor in this overall picture was the openness of the United States economy, which in the course of the post-war period managed to double its import-product coefficient (from less than 5% to over 10%) and transform the dollar shortage of the beginning of the period into a glut which has ended up as one of the biggest problems of the central economies and a major cause of the international monetary disequilibrium.¹²

Within this transformation of the external setting the importance must be stressed of the impact caused by the experience of a group of—quite dissimilar—Asian countries¹³ which took advantage of the opportunities thus created with great flexibility and energy and developed a form of open or export-oriented industrialization which some have seen as an alternative to the model prevailing in Latin America and elsewhere.

“the new approach to production strategy meant that the economy had to have foreign exchange both for capital investment purposes and to supplement the domestic production of consumer goods; and this called for a high, steady growth of exports” (E/CEPAL/G.1103, p. 296).

¹²It is worth noting in passing that this is one of the few bases of CEPAL thinking *circa* 1949 to be set right by subsequent events, although this does not detract from the great significance of the shift of the “principal cyclical centre” from Great Britain to the United States.

¹³Primarily South Korea, Taiwan, Hong Kong and Singapore.

We cannot stop here to examine this experience and the comparative judgements it involves. Suffice it to stress the essential point: that the differences in the historical and structural patterns are so deep that superficial analogies merely call to mind the aphorism that such exercises are the main enemy of the social sciences. Besides, it is enough to review any conscientious analysis of such cases, even by their advocates, to recognize their peculiar nature (or natures).¹⁴ Nevertheless, their influence should not be underestimated.

Finally, the external setting was radically altered by the unprecedented fluidity and magnitude of credit flows, particularly from private international banks.

(b) *Endogenous factors*

These changes in the international setting have had their counterpart in the development of relations with the exterior as outlined above. This development has involved a characteristic facet of Latin American experience since the crisis: the chronic bottleneck and disrupting fluctuations of trade, stemming from the imbalance in the relative dynamism of imports and exports, and also from the overwhelming importance of a few basic export commodities.

Thus if the international factors implied increased opportunities and, specifically, demand for exportable products, these endogenous factors brought one of the most acute problems of regional growth, which had to be alleviated or resolved.

In addition to these elements, others should be mentioned which also spring from the domestic setting and the polyvalent and—from some angles—contradictory repercussions of the industrialization process. Summarizing a familiar CEPAL line of analysis, this development was subjected simultaneously to two forms of pressures. The first arose from the higher demand for imports stemming from growth in incomes and a number of inherent

¹⁴See, for example, “El desarrollo industrial orientado para la exportación: la experiencia de Corea”, by Larry Westphal: summary by the author, with comments by Frederick E. Berger, in “Políticas de promoción de exportaciones”, vol. I (E/CEPAL/1046), pp. 73-86.

characteristics of the process, such as the lack of vertical complementarity of the emerging industrial activities and the spur of service payments on foreign capital and loans.

The second source of pressure stemmed from the constraints of the domestic markets which, along with other factors such as the distribution of income, and according to the particular situation of each country, hindered the progress of certain stages of industrialization.¹⁵ While the small countries with difficulty approached the limits of 'easy substitution', based on branches of light or traditional industry and basic inputs, these constraints became conspicuous for the large countries embarking upon 'difficult substitution' linked with the growing presence of the transnational corporations.

(c) *The domestic potential*

All these aspects led, as mentioned earlier, to the need for and desirability of altering the pattern of relations with the exterior. But other factors which also affect the process from another angle should not be overlooked, such as the domestic capacity to undertake this task thanks to the new structures and potential created by the advance of industrialization in the broad rather than the sectoral sense.

As is shown by the experience of the countries which have advanced furthest in this direction, the process involved establishing a fulcrum or springboard whereby manufacturing exports could reach external markets; and this is obviously important for the prospects and options open in the future, a question discussed below.

As indicated earlier, we are not referring merely to the specific contribution of manufacturing activities in this field. Equally important has been the multifarious irradiation of industrial praxis in labour and entrepreneurial training, in the quantitative and qualitative growth of the public and private technocracy, in the modernization and readjustment of the institutional and instrumental apparatus of economic policy, and in many other respects. Indeed, this

is another application of the principle of 'learning by doing'.

It is true, as sometimes pointed out, that many lines of export diversification were set up prior to post-war industrial development or have nothing to do with it. However, it is difficult to believe that these would have broken into world markets without all the transformations which we have outlined.¹⁶

In brief, if the first set of factors induced or encouraged a reappraisal of the approach to external links, this last factor was for some the objective condition governing the viability of doing so.

2. *The variants of opening up to the exterior*

The form in which these motivating forces have been translated into lines of economic policy varies considerably from country to country, partly in the light of their particular situations and partly—and sometimes decisively—as a result of the way in which they interpret the problem. There is certainly an enormous range of ideas about the forms and functions of the global process of internationalization.

At a high level of abstraction two lines of thought and action can be distinguished, characterized primarily by the more or less comprehensive and radical nature of the alternative diagnosis of the situation prevailing until roughly the mid-1960s. These two broad currents may in turn be broken down into different conceptions of a number of more specific and relevant questions for the purpose of this analysis, such as the nature and role of industrialization, the degree and form of openness to the exterior, protectionism and import policy.

From the first and more general angle, it is no distortion or caricature of the facts to distinguish two basic approaches to the question. One might be termed the *ideological* approach, with no pejorative undertones; the other is rather *pragmatic*. From an overall point of view, looking at the Latin American picture in recent years it might be said that the experience of the

¹⁵ See *Economic Survey of Latin America, 1975* (United Nations publication, Sales No. E.77.II.G.1), Part Two.

¹⁶ It is worth bearing in mind the impact on the growth of non-traditional exports of investment in infrastructure—basic services, roads, refrigeration and packing plants (with large-scale State participation).

southern countries (Chile, Argentina and Uruguay) falls within the first category while Colombia, Brazil and the other countries of the region are closer to the second.

With regard to the ideological approach, it seems clear that the transformation of external relations is part of a much broader—what used to be called ‘totalizing’—context and is in fact only a fragment of a readjustment which covers practically all dimensions of social reality, although its impact is not the same in all of them.

This outstanding feature also signifies a substantial degree of *discontinuity* with respect to the past, both in general and in particular aspects, which is part and parcel of an alternative ‘ideal type’. If this is not found in the present scenarios,¹⁷ by explicit or implicit association one can go back to earlier ones, and particularly those of the nineteenth century, thus reviving former approaches.

The other main variant differs in both these respects, i.e., both in its degree and in its components. It does not have the same multi-dimensional nature and does not involve an essential break with the preceding trends and structures which it wishes to modify. In other words, it is based on the varying interplay of change and continuity.

To illustrate these contrasts, and given the impossibility of undertaking a systematic comparison here, let us turn to firmer ground and examine some specific aspects.

(a) *Approaches to industrialization*

There is little doubt that the views held on the past and future significance of industrialization, and of so-called substitution industrialization in particular,¹⁸ are one of the main points of difference both between the two above-mentioned approaches and between them and others which may be distinguished.

¹⁷The ‘social market economy’ of the Federal Republic of Germany is usually given as the archetypal reference, although many characteristics of that country’s experience do not correspond to the postulated ‘ideal type’.

¹⁸With regard to the concept and *raison d’être* of substitution industrialization, see *En Torno a las Ideas de la CEPAL; Desarrollo, industrialización y comercio exterior*, Cuadernos de la CEPAL, No. 13 (Santiago, CEPAL, 1977).

Without going further into the critique of the process, it is clear that the first position views openness to the exterior in general, and the promotion of exports and liberalization of imports in particular, as a drastic about-turn with respect to the earlier approach based on the domestic market and import substitution and selectivity. The objective is in fact to move from inward-directed to outward-directed development.¹⁹ In addition, within its overall view of the matter it subjects the general process of industrialization (and that of development) to the logic of comparative advantage, the decisions of the market mechanism and open competition with the exterior.

The ‘pragmatic’ approach, as may readily be supposed, adopts a different view which basically goes beyond the apparent contradiction between the opposed terms and attempts to bring them together in new combinations. To illustrate this approach it is worth saving time by recalling some observations by C. Díaz-Alejandro in his famous study of the Colombian case.²⁰ He states that the picture which emerges from the policies followed since 1967 is somewhat different from the textbook descriptions of the shift from import substitution

¹⁹In a recent study, for example, it was argued that “in the middle of the previous decade ... some Latin American countries began to implement the outward-directed development strategy by means of policies to stimulate non-traditional exports” (Ricardo Ffrench-Davis and José Piñera Echeñique, “Políticas de promoción de las exportaciones en los países en desarrollo”, in *Políticas de promoción de exportaciones*, vol. III (E/CEPAL/1046/Add.2), p. 55). Professor Rosenstein-Rodan, criticizing the negative trends in the development of some countries, attributes them to “the continuation of a mistaken policy of ‘import substitution’ instead of outward-directed development (successful example: Brazil)” (“Characteristics of Latin American development”, paper presented at the Second Panama Banking Convention, in April 1979 (mimeo)).

²⁰The quotations are taken from a presentation on the author’s work *Colombia*, Special Conference Series on Foreign Trade Regimes and Economic Development, vol. IX (New York, National Bureau of Economic Research, 1976) made at the Fundación para la Educación y el Desarrollo in Bogotá in 1973, and reproduced for an ILPES course in 1979. Attention focuses on the Colombian case because it is usually considered to have been more open than Brazil, besides having been a pioneer in this direction. The Brazilian case, on the other hand, self-styledly pragmatic, differs more profoundly from the ideological approach in a number of key aspects—the role of the State and of public enterprises, and the clear continuation of the process of substitution industrialization.

to export-promotion policies, and adds that the change from an import substitution policy to an export promotion policy in Colombia should not be regarded as a *volte-face*. More precisely, he stresses that the launching of the 1967 policies directed *relative* incentives towards exports in contrast with import substitution. However, and perhaps more importantly, these policies strengthened the incentives for selected import substitution and export activities in relation to the non-tradeables sector.

A similar interpretation and approach to the problem may be seen in other cases, including that of Korea.²¹

(b) *Other related aspects*

The contrast between the two approaches, as pointed out above, is also visible in a number of subsidiary aspects of the overall approach to industrialization: comparative advantages, protectionism and liberalization of imports.

It would be ridiculous to attempt to make a suitable review here of the first of these aspects, which is the subject of long-standing and unresolved controversy that becomes more nebulous with the inclusion in the analysis of legitimate and significant non-economic variables (national imperatives, social, humanitarian and cultural values, etc.). It is nevertheless worth mentioning from the standpoint of this discussion.

Starting from the other end of the range of positions, it is obvious that the pragmatic approach—by its very nature—has not managed to produce a clear and comprehensive theoretic-

cal corpus on this issue which is unquestionably extremely complex in that it necessarily goes beyond and economic framework.

However, it is important not to underestimate the valuable contribution to the analysis of this issue contained in studies and proposals in the field of planning, since these are the concrete manifestation of resource allocation criteria both within the domestic economy and with regard to the external sector.

Indeed, these contributions have made it possible to blend the different senses of the concept of comparative advantage—which can be *absolute* (where the natural resource endowment is predominant), *relative* (when it emerges from the contrasting of viable options) or *acquired* (in which national determination is crucial, and which involves 'learning by doing').²²

The ideological approach may not ignore the complexity of the problem, but its inhibitions are swept away by the value placed on a guiding criterion which is very clear and categorical, "that of comparison with international standards, which are basically determined by the levels of productivity and prices prevailing in the central economies. Greater or lesser competitiveness as compared with this point of reference will determine the 'economic viability' or 'efficiency' of the activities in question. 'Comparability' with these levels will justify their existence; 'comparative disadvantages' their elimination".²³

This is, of course, the extreme version of a Darwinian logic which has never actually existed, but it would be wrong to underestimate its past and present influence in sympathetic circles both in and outside the region.

²¹In this connexion, L. Westphal states that under the impetus of import substitution for non-durable consumer goods, the growth of the industrial product was quite rapid (12% annually) during the second half of the 1950s. However, at the beginning of the following decade opportunities for 'easy' import substitution began to dwindle rapidly, and ultimately industrial growth to slacken. He adds that selective import substitution has permitted the concentration of scarce investment resources in one or a few sectors at a time and thereby made possible greater exploitation of economies of scale and of the linkages among closely inter-related activities (Westphal, *op. cit.*, vol. VIII, pp. 73 and 76). A study in the same document on the case of Yugoslavia points out that import substitution and export promotion do not appear to have been seen as alternatives, but were followed in different sectors at different times. (V. Dubey, "Yugoslavia: exportaciones de bienes y políticas de explotación", V. Dubey: *Resumen del trabajo, ibid.*, vol. X, p. 95.)

²²The experience of the industrial late-comers, whether developed or peripheral countries, provides a clear picture of the different combinations and focal points in each particular case. Broadly speaking, it seems evident that relative and acquired advantages have tended to weigh more than absolute advantages in the modern setting, although this can in no way be interpreted as an expression of arbitrary 'voluntarism'. It goes without saying that market size and the volume and nature of natural resources are important elements of comparative advantage, and in particular of degree of openness.

²³A. Pinto, "False dilemmas and real options in current Latin American debate", *CEPAL Review*, No. 6 (second half of 1978), p. 38.

(c) *Protectionism and liberalization*

The different approaches to protection and liberalization of imports, which should be reviewed within the context of the general attitudes to industrialization, are sufficiently well defined to require merely a cursory examination.

In the southern countries, and particularly Chile, the change of direction on both these fronts has been radical. In the others, on the other hand, it is moderate and sometimes interrupted. In the case of Colombia, for example, the free-trade experiment of 1965-1966, following the traditional recommendations of the International Monetary Fund, was, in the words of one expert, a 'traumatic experience' which paradoxically paved the way for export promotion within a context of much greater control over imports.²⁴ Brazil's protectionist armour remained virtually intact, although it was substantially revamped in the mid-1960s in order to adjust it to the new stages of industrialization. On the import side there was also some liberalization,²⁵ although heavy duties were levied on luxury goods - unlike what happened in some countries further south.

It should be recalled here that on both these issues there had for long been some degree of consensus about the need to rationalize the system of protection inherited from the times of severe disequilibrium in the external accounts, to which attention was drawn repeatedly in CEPAL studies.²⁶ Policy on non-essential or luxury imports was likewise the subject of recurrent discussion. One representative attitude

stressed that drastic restrictions on such imports meant that resources would be siphoned off to produce them domestically, and therefore advocated some margin of freedom which in turn would provide an attractive field of taxation.

Be that as it may, the crux of the disagreement appears to lie in the differences of approach to the interrelated functions of protectionism, export promotion and the flow and nature of imports within the development process. The ideological approach places all these elements in the framework of the greatest possible openness, which should thus come close to the ideal of perfect competition both domestically and in foreign trade. The different varieties of the pragmatic approach agree that rational and effective protection is needed and that export promotion should be the basic instrument for increasing the purchase of those imports which contribute most to development and well-being, all of which cannot be achieved without the application of selective criteria concerning their nature.

3. *The dangers of opening up to the exterior*

Going beyond the reasons underlying the search for a new pattern of external links and the major forms which can be distinguished in this connexion, it is worth pausing to consider a number of dangers latent already encountered in this experience. This must be done before proceeding to examine the options visible for the future.

A recent study makes a valuable contribution to the analysis of this problem and can guide our approach to it.²⁷ The study argues that a distinction must be drawn from the outset between the risks "that make themselves apparent in the behaviour of the more generic—primarily macroeconomic—variables" and those "which arise out of changes in the structure of domestic prices and in the remuneration of the factors of production, as well as in the existing relations between earnings and prices". The two kinds of effect are obviously closely

²⁴ Díaz-Alejandro, *Colombia, op. cit.* Elsewhere the author states that "the Colombian experience indicates that drastic import liberalization is neither a necessary nor a sufficient condition for export growth" (p. 208). Going further into the matter, he adds that while there does seem to be a decline in extravagant and large-scale new initiatives in the field of import substitution, it remains true that the import control machinery is still used vigorously to protect existing activities (and some new ones).

²⁵ A direct reflection of this is the growth of imports of non-durable consumer goods, although their share of the total (around 5%) did not increase significantly. See *Economic Survey of Latin America, 1975, op. cit.*

²⁶ See, for example, *En torno a las Ideas de la CEPAL; Problemas de la Industrialización en América Latina*, Cuadernos de la CEPAL, N.º 14 (Santiago, Chile, CEPAL, 1977).

²⁷ H. Assael, "The internationalization of the Latin American economies: some reservations", *CEPAL Review*, N.º 7 (April 1979), pp. 41-55.

related, the latter being dependent upon the former in the main, although as they develop dynamically they reinforce each other.

Within this overall picture one singularly important possibility is that the "open economy" approach may involve a very serious error of perspective inasmuch as it focuses excessively or solely on the significance of external demand rather than the present or potential importance of the domestic market.

We have already shown the actual relative importance of three factors in the past and estimated their future weight. There can therefore be no doubt about the predominance of the domestic market, all the more so if its potential continues to be developed, as advocated in most official policies and patently justified on social and economic grounds.

It should be pointed out immediately that this argument does not postulate a naïve or mutually exclusive contradiction between these two engines of growth or alternative patterns of production activity. On the contrary, as was mentioned earlier, it is clear that they must be complementary, as has very often been the case in the past.

However, the seeds of conflict, perhaps only relative but nonetheless important, do exist, as past experience shows. Frequently the extension of external links has not gone hand in hand with an equal strengthening (in relative and sometimes even in absolute terms) of the domestic market and the production activities geared to it, with the consequences which have been fully documented in the literature on the question.

Some examples show the cause of this possible or actual contradiction.

(a) *Investment and domestic demand*

The orientation of investment is an outstanding example in this respect. If the level of investment does not rise significantly, the preference for export-linked investment inevitably means that investment primarily or exclusively destined for the domestic market will decline in relative or absolute terms.

Clearly, economic policy can and should guide the investment process—equally to avoid the opposing bias of neglecting investment

in activities with some degree of export potential. But if instead policy is directed disproportionately or excessively in the opposite direction—despite doctrinaire proclamations on the non-involvement of the State—the cumulative distortions may be substantial within quite a short time.²⁸

In addition, these latent or real possibilities are strengthened by the social implications of a change of policy which is very radical or lacks the necessary balance.

The prevalence of the inward-looking approach was naturally accompanied by the priority objective of expanding the domestic market for the activities directed towards it, and social policy (on wages, subsidies, social security and so on) was geared to this end with all the limitations and shortcomings which can be attributed to such a state of affairs.

Naturally enough, the alternative approach implies a more or less substantial change on this front, because its very nature is to give pride of place to external rather than domestic demand, above all in terms of the relative and dissimilar growth of each. Furthermore, since the level of earnings is a decisive element in external competitiveness, a rise in the former must by definition have a negative effect upon the latter. The broader implications are equally clear. Using the means at its disposal, this policy will aim to hold down earnings, while the approach focusing on the domestic market must *simultaneously and primordially* seek to increase the effective demand for goods and services which is to be satisfied.

Finally, it should be emphasized, as it is in Assael's study, that the interplay of incentives and disincentives in an injudicious export strategy may mean that "favourable conditions are generated or re-established for the operation of the traditional system of the interna-

²⁸ It might be added that some legislation aimed at the unilateral promotion of industrial and non-traditional exports may give rise to administrative and discriminatory problems, which have often been a feature of legislation fostering import substitution activities. This has been suggested, for example, in criticism of the legislation adopted by Peru in this field at the beginning of 1979. See the *Informe Económico* supplement to the newspaper *El Mercurio* (Santiago, Chile), for July 1979.

tional division of labour and of comparative advantages, in the orthodox sense". The limited or smaller importance placed on inward-directed industrial development would seem to accentuate this tendency, while the enhanced opportunities in some primary branches would tend to encourage their falling into foreign hands, particularly in the case of mining, because of the scale of the investment involved and other well-known factors.

(b) *Imports and regional integration*

Still on a general level, it seems clear that these potential or emerging trends will be strengthened if the export-oriented approach is combined with a determined or indiscriminating policy to free imports, either as a functional part of the open-economy ideology or as a means of tackling the problem of the occasional gluts of incoming foreign exchange. The substantial, and often undifferentiated cuts in tariffs and the rejection of other protectionist measures (such as import deposits or exchange rate management)²⁹ and of progressive internal taxation are common elements in this approach.

Repeating judgements quite widely advanced in the region during the past century in criticism of attempts at protection, it is argued that in this respect external openness places within reach of 'the consumer' the goods and services offered in the industrialized economies with high average incomes. However, it is perfectly clear that many of these—precisely those for which the demand is most dynamic—are beyond the effective purchasing power of the majority of the population, whose income level only barely allows them to meet their basic needs. Of course, this is not to deny the 'trickledown effect' in the case of many

²⁹This instrument, much used and abused in earlier times, has become an object of ideological execration whose equivalent in the opposite camp, might be said to be currency devaluation. However, it seems clear that a very selective and limited differentiation of rates may be a useful and expeditious instrument on many occasions, particularly in economies with appreciable structural heterogeneity — for example, where the export sector (or its main branches) has much higher levels of productivity than the average level in the economy. This would also appear to be a very important aspect as regards the external projection of industrialization.

goods of low unit value which abound in modern consumption (whether imported or not), but in this case it is important, not to underestimate the possible distortions caused if this occurs at the expense, absolutely or relatively, of expenditure on necessities.

Finally, we cannot close this review without referring to the negative effects on regional integration projects.

Besides the many different domestic obstacles which have affected its course, it is well known that the propitious winds of international trade and the availability of abundant financial resources have also helped to douse the frame of integration, although without in any way removing its deep-seated historical *raison d'être*. Furthermore, in some countries these factors were compounded by the deliberate or implicit repercussions of the 'open economy' approach, despite the changes in the world economy since 1973 — a point to which we shall refer below.

The opposition to the economic and general logic of regional integration, which is only seen as a means of reproducing the errors of substitution industrialization in a broader context, goes together with the rejection or elimination of incentives and machinery designed to promote it, such as the establishment of a common tariff towards the rest of the world, the well-harmonized preferential cut-back in duties on trade among members, and the joint planning of investment.

(c) *Repercussions on prices and wages*

From the other angle identified in this analysis, another salient point is the hypothetical or proven impact on the level and structure of prices and wages resulting from the injudicious application of a policy of opening up to the exterior.

As argued in the above-mentioned study, "domestic prices of goods ... tend to be assimilated to world market quotations [and] are affected by the more extensive and expeditious export and import possibilities". However, "the trends that are generated in respect of the remuneration of profitability of the factor of production in the developing countries in pro-

cess of internationalization are not so clearly defined".³⁰

The difference in effect stems largely from the relative supply and cost of capital and labour, as well as the lower domestic or international mobility of the latter, and these tend to accentuate the divergence. Thus forces are unleashed which produce a situation whose extreme case has been described as "international prices and domestic wages".

Obviously, to emphasize these contrasts is not to postulate that the purchasing power of wage earners could be the same in all countries whatever their level of development or levels of productivity. What is clear is that some policies of external openness have increased the gap between wages and the prices of many essential products by bringing the latter up to international levels.³¹ Consequently, the factors which may cause losses in real wages are strengthened by changes of a regressive nature in the price system. What is more, it should not be forgotten that in well-known cases this tendency is worsened by the (relative or absolute) drop in prices and greater availability of products for the higher-income groups as a result of the freeing of imports.

This trend is also linked with the nature of the goods which make up the so-called-non-traditional exports. Although this category varies from country to country, as we shall see

below, it is well known that many, and sometimes most, are agricultural goods and light industrial products (processed foods, clothing, footwear, etc.). It is therefore these products which suffer the strongest price impact, both because of the fact that external market prices are usually higher and because of the incentives which they are given, all of which has a reflex effect on the domestic prices of these goods and of related products. An additional danger, which has materialized in some cases, is that the unbalanced emphasis on exportable agricultural products results in a decline, or slow growth of crops for domestic consumption.

These effects become even more serious if a significant or increased proportion of imports consists of non-essential or luxury articles. In a word, a growing proportion of wage goods is being exchanged for others primarily or exclusively destined for the top income groups.

In short, then, through these and other channels an unfettered opening-up of the economy runs the risk of re-establishing, creating or deepening economic and social features which have long been criticized in Latin America, and the correction of which is a priority objective of most official policies proclaimed in the region, sometimes even in the very countries which appear to be taking a different road.

III

Options and problems

1. *The role of industrial exports*

If we now return to the premises set forth at the beginning of this article, it is easy to see that to secure a dynamic, synchronized rate of growth of foreign trade calls for policies that can avoid what have been described as the dangers of

openness as well as the difficulties that have arisen in the past. In other words, the process of internationalization should be placed on foundations which allow a different, more favourable and more dynamic insertion in the world economy.

³⁰ Assael, *op. cit.*, p. 50.

³¹ A defender of such policies, besides confusing the sense of the contrast described above by arguing that it overlooks the manifest and inevitable differences in real incomes between the countries compared, recognizes "that for many decades our prices were below international levels" and adds elsewhere that "in general prices in Chile

are similar to or even often above international levels *due to the openness of our economy to foreign trade*" (our underlining). Rolf Lüders, "Precios internacionales y sueldos chilenos", in the Santiago newspaper *La Tercera de la Hora*, 8 August 1979; the article was a reply to an article by the sociologist Pablo Huneeus, "Precios y precios", *ibid.*, 23 July 1979.

It goes without saying that an approach to this issue must cover all of its many dimensions, some of which do not lie within the economic sphere but are nonetheless extremely important. Even within that sphere, it will not be possible to deal with all its aspects, although some of them, such as the attitude to imports, have been outlined above. Others, such as the problem of indebtedness, cannot be examined here, and in any event there is an abundance of recent literature on the question.

Instead we shall focus on what emerges as the crucial issue in the discussion, namely, the role of manufactured exports. These combine two very important functions: first, they facilitate and promote the continued development of the industrialization process, expanding its domestic and external underpinning; and secondly, they alter the 'outdated model' of the international division of labour, the main lines of which still exist in the relationship between centre and periphery.

(a) *The differential prospect of exports*

First of all, an obvious question must be asked: why single out manufactured exports? Do not basic commodities offer similar or better opportunities?

Without returning to the past record, which speaks for itself, a convincing reply is given by World Bank data on the prospects for world exports. As shown in table 4, the projections of the probable evolution of the components of world exports between 1975 and 1985 suggest that manufactured exports will far outstrip all others, thus continuing the trend recorded in the period 1960-1975. With regard to the less developed countries, the growth rates will be much more differentiated than in the case of the world average, and there will again be a growth rate of slightly over 12% annually. Consequently, by 1985 43% of the exports of those economies will consist of manufactures, which will account for 64% of the rise in their sales between 1975 and 1985.

To round off this picture, table 5 compares the growth rates of the volume of the main agricultural and mining exports—excluding oil—in the years 1960-1976 and gives estimates to 1990. The breakdown by products gives a better view of the more global trends presented in table 4.

Needless, to say, this is not to underestimate the present and future importance of commodity exports, particularly for Latin America as a whole and above all in the case of the countries where there are good prospects of

Table 4

PAST AND PROJECTED GROWTH RATES OF EXPORTS, BY PRODUCT GROUPS

(In 1975 dollars)

	Less developed countries		Less developed countries		Percentage of exports of less developed countries			Percentage share of increment	
	World	1960-75	World	1975-85	1960	1975	1985	1960-75	1975-85
Fuels and energy	6.3	6.2	3.6	3.4	39	40	30	42	18
Agricultural products	4.2	2.6	4.4	3.1	43	27	20	16	12
Minerals, excluding fuels	3.9	4.8	4.2	5.8	7	7	7	6	6
Manufactures	8.9	12.3	7.8	12.2	11	26	43	36	64
<i>Total goods</i>	<i>7.1</i>	<i>5.9</i>	<i>6.4</i>	<i>6.4</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>

Source: World Bank, *World Development Report*, 1978, Washington, tables 13 and 25, and unpublished projections prepared for the same reports.

increasing these exports or where industrialization is still in its early stages and needs more complex support, such as that provided by sub-regional integration.

Table 5

DEVELOPING COUNTRIES: PAST AND PROJECTED GROWTH OF THE VOLUME OF THE MAIN AGRICULTURAL AND MINING EXPORTS

Product	Value in 1974 ^a	Growth rate of the quantum of exports of the developing countries (percentage)	
		1960-1976 ^b	1974-76/1990
Copper	5 320	3.7	3.3
Sugar	5 083	2.8	2.7
Coffee	3 984	1.7 ^a	2.6
Fats and oils	3 877	5.7 ^c	5.2
Logs		8.8 ^c	2.2
Sawnwood	2 747	8.6 ^c	8.0
Cotton	2 291	-0.2	-0.3
Rubber	2 212	3.6	3.6
Iron ore	1 693	6.9	3.9
Phosphates	1 692	5.2	5.1
Cocoa	1 555	2.2 ^d	2.5
Tin	1 256	0.9	1.5
Maize	1 153	5.4 ^e	3.6 ^e
Rice	1 094	-0.7	0.0
Tobacco	691	3.9 ^c	5.3
Tea	672	1.8 ^c	2.3
Meat	609	-1.7 ^f	5.4
Bananas	602	3.3	2.1

Source: World Bank, Division of Commodity and Export Projections.

^aNo year is entirely representative because of price fluctuations; for example, in 1975 copper and phosphate prices were exceptionally high.

^bHistorical trend.

^c1961-1976.

^d1955-1976.

^eGrowth rates refer to all cereals.

^f1961-1963/1976.

In this connexion it is worth drawing attention to the widespread progress made in the diversification of commodity exports. According to a study of 55 non-oil-exporting economies, the proportion of countries dependent on one commodity for more than half of the total

value of exports fell from 49% in 1960 to 18% in 1974.³²

(b) *Industrialization and manufactured exports*

Resuming a discussion which began when examining the varieties of opening up to the exterior, it is now necessary to stress the symbiotic relationship between industrialization and manufactured exports. As was suggested above, such exports are essentially a means of obtaining the 'lubricant' (imports) needed to continue with the process of industrialization in its broadest sense, and of expanding the market so that the process can be more dynamic, profound and economically efficient.

In other words, export-oriented openness, far from being a break or *volte-face* with respect to past industrialization, should be viewed — to paraphrase Von Clausewitz's famous aphorism³³ — as the continuation of industrialization by more propitious and historically necessary means.

The other side of the coin is even clearer. If it is considered possible and necessary to expand manufacturing exports in future, how can this be done without maintaining or strengthening the industrial development capable of generating the goods in question?

All of this should of course be viewed in a context in which, as we have already seen, present and future demand in the domestic markets will continue to require the steady, preferential growth of manufacturing supply, of which it is at the same time the main or at least a significant support (as the case may be).

The emphasis placed on these aspects may appear excessive bearing in mind that nowadays nobody is *in principle* against industrialization. Even the extreme orthodox ideological current has moderated its previous total antipathy, which nonetheless remains considerable. However, the heavy one-sided emphasis

³²H. B. Chenery and D. B. Keasing, *The Changing Composition of Developing Country Exports*, World Development Report, Washington, Background Paper, N.º 5, 1978.

³³"War is nothing but a continuation of political intercourse with the admixture of different means."

placed on export promotion and the subjection of the manufacturing process to the rigorous satisfaction of the rules of international 'competitiveness' intrinsically involves self-imposed constraints upon its development and its hierarchical, functional relationship with the other objective.

In brief, then, the false choice between inward-looking and outward-looking industrialization (or between earning foreign exchange from exports and saving it for other, more suitable purposes by producing for the domestic market) is resolved by blending the two options, which rather than being mutually exclusive in fact strengthen each other within the framework of the overall diversification and expansion of manufacturing. Thus an advance along the lines of inward-directed industrialization may have as its direct or indirect consequence an immediate or future rise in exports (as has usually been the case), and progress in exporting may also stimulate inward-directed industrialization as a result of its forward or backward linkages (as has also occurred in other cases).³⁴

The harmonization and ranking of these factors raises complex and to some extent novel problems for development and industrialization policies, which have led to different formal or informal forms of planning and of State intervention. The 'invisible hand' or absolute free play of market forces has been relegated to the limbo of pseudo-academic abstraction.³⁵ The real discussion is in fact confined to weighing up the respective roles of planning (or the deliberateness of economic policy) and of the market, to the relationship between these two determinants of the allocation of resources and, above all, to the nature of the economic and social objectives pursued.

Clearly, we cannot discuss here all these aspects which together constitute the bulk of an

industrialization strategy.³⁶ Limiting ourselves to the issue under consideration in this section, the following statement from a CEPAL document referred to earlier may be taken as a guideline:

"In brief, unless the development policy changes sufficiently to boost manufacturing exports still further and at the same time achieve an active and efficient substitution of imports in the less developed sectors, it will be difficult to modify the structural characteristics hindering the development of the Latin American economy."³⁷

In another apposite summary, an eminent Peruvian economist couched the dilemma in the following terms:

"Either industry begins to generate its own foreign exchange earnings in order to support its high rate of growth, or the rate of growth of industry and thereby of the economy as a whole must slow down to the rate of increase permitted by the availability of foreign exchange, i.e., roughly to the rate of growth of primary production."³⁸

(c) *A digression on substitutive industrialization*

At the risk of interrupting the thread of our argument, it is necessary to pause here to introduce an issue closely linked with the question under discussion which we have deliberately left aside. We are referring to the controversial question of what is known as substitutive industrialization. For some, as is well known, this form or aspect of Latin American growth is a kind of 'original sin' which has fortunately fallen not only into disrepute but also into disuse. Others, on the other hand, are perhaps more

³⁴ See Pinto, *op. cit.*

³⁵ This is also true of the industrial-exporting economies of Asia and those which apply radical policies of external openness. In fact all of them use a battery of conventional and unorthodox instruments to stimulate their outward-directed development; what is difficult to find in these cases is the integration of these provisions (which are sometimes in themselves positive) within the overall context of the economy and the development of industrialization.

³⁶ See in this regard "Analysis and prospects of Latin American industrial development" (ST/CEPAL/CONF. 69/L.2), submitted to the Second Latin American Conference on Industrialization, held in Cali, Colombia in September 1979.

³⁷ "Las exportaciones manufactureras de América Latina: experiencias y problemas", by Angel Monti, with comments by Norberto González, in "Políticas de promoción de exportaciones", vol. I (E/CEPAL/1046), p. 12.

³⁸ Daniel M. Schydrowsky, "Policymaking for national economic growth", in Luigi R. Einaudi, ed., *Latin America in the 1970s* (Santa Monica, California, Rand Corporation, 1972), pp. 100-101.

understanding about its origins and functions, but sometimes entertain comprehensible doubts about its present significance and validity

An albeit cursory discussion of the question is therefore worth while in order to single out some points which may be useful for the general discussion.

Without reviewing here what has *actually* been proposed on this question in the literature of CEPAL,³⁹ it should be stated at the outset that essentially the concept has a *historical* connotation: in other words, it is set in a particular time and place, primarily that of the relatively more developed economies of the region in the period roughly ranging from the Great Depression to the early 1950s. This is the true setting in which substitutive industrialization took place — and CEPAL did not invent it but merely incorporated it in its analysis and diagnosis of the regional economy.

What was its *raison d'être*? That the constraints of the external sector forced or induced domestic supply to meet the demand that could no longer be satisfied by imports (which were insufficient and had been reallocated to higher-priority ends) and which also represented a market which was safe, known and within the reach of the real human and financial capacities of the existing enterprises. This is the context of the phase of 'easy substitution' in the general framework of inward-directed development.

The situation tended to change steadily and substantially in the course of the 1950s. In addition to the more obvious obstacles such as economies of scale, market size and technological and financial requirements, there was the paramount factor that the attractive potential and opportunities stemming from existing demand were relatively exhausted. Thus it was no longer mainly a question of *replacing* existing imports by national production but rather of *anticipating* and in fact creating (by the demonstration effect, consumer credit, advertising

and so forth) a demand for goods neither produced nor imported, except in small quantities which fluctuated in accordance with the varying supply of foreign exchange. This is the picture which characterized the second stage, wrongly labelled 'difficult *substitution*' since essentially it was not filling a void left by the restriction or elimination of imports which satisfied a pre-existing market. In other words, it would be better to speak instead of 'difficult *industrialization*' to define the subsequent period which, in any event, also followed the general approach of inward-looking development, i.e., directed towards and based upon the domestic market.

The example of the motor-vehicle industry, or of 'heavy' or dearer durable goods, takes us to the heart of the matter, although citing them in no way implies any judgement on their level of priority or significance. For well-known reasons, even in the larger countries (perhaps with the relative exception of Mexico because of its more liberal import policies) the above-mentioned problems have made it difficult to respond to the latent or embryonic demand for such goods either through imports or through domestic production. Since the first path was closed or very narrow, only the second remained, primarily opened up by the transnational corporations. It is they, and in other fields the State or large national consortia, which broke the barriers of 'difficult industrialization' that did not fundamentally involve import *substitution*, except in contrast with a hypothetical, non-existent alternative, i.e., the satisfaction of that demand by purchases abroad. To hammer home this point, it is obvious that following such a path Brazil could never have imported annually nearly one million motor vehicles — its output in recent years.

In sum, then, substitution proper becomes relatively less important as inward-directed industrialization advances and now begins also to be directed outwards as part of its growth effort and of the general requirements of development.

But the fact that the role of industrialization via import substitution has diminished does not mean that it has become obsolete or invalid. Nothing could be farther from the truth. As shown by the experience of some

³⁹ See, for example, *En Torno a las Ideas de la CEPAL: Desarrollo, Industrialización y Comercio Exterior*, *op. cit.*, and *En Torno a las Ideas de la CEPAL: Problemas de la Industrialización en América Latina*, *op. cit.* See also "The growth and decline of import substitution in Brazil", *Economic Bulletin for Latin America*, vol. IX, N.º 1 (March 1964), pp. 1-59.

economies of the region, the advance of manufacturing and of overall growth also creates and increases the demand for imports—primarily of capital goods and basic inputs—and thus makes it possible or necessary to embark on their substitution at the national or regional level in view of the growing need for foreign exchange which it is difficult to satisfy because of competing demands or the limitations of the external accounts. This variant of *substitutive* industrialization therefore remains valid, although without the decisive importance it had in the past, and within a new general context.

Of course, the problem presents different features from country to country, as we have seen, and the relative emphasis placed on the above approaches varies, but this does not detract from the validity of our general position. Thus substitution proper, diversification aimed at an emerging or anticipated market and relations with the exterior—the region or the rest of the world—are so many aspects of the general effort to promote industrialization and forge links with the world economy.

We shall now continue dealing with the questions raised before this digression.

2. *Criticism of the possibilities of a new insertion*

While there is no shortage of observers who express doubts and reservations concerning the prospects for the achievement of a new form of insertion in the international economy, there are others who are critical from the opposite angle: in other words, they accept the possibility of a change in the pattern of trade, but do not consider that it would benefit the periphery. In the words of one of the spokesmen of this current, world-market-oriented industrialization does not brake but rather perpetuates the historic process of dependent, unequal development of the countries of Africa, Asia and Latin America.⁴⁰ Repeating this idea, another author defines and broadens it as

follows: so long as the industrial exports of the periphery take place on capitalist terms of trade and still more within the framework of the new patterns of capitalist accumulation, they will continue to be a mechanism for the external expropriation of surpluses, of unbalanced and unfair trade.⁴¹

These opinions may cause some surprise since they appear to forget the age-old complaint of the periphery about its commodity-exporting status, in addition to ruling out one of the central objectives of the new international order. When all is said and done, this may be considered another variety of the 'disaster' viewpoint, in which any possible change turns out worse than the existing situation unless it conforms to other rules which are rarely defined with any degree of depth.

Of course, this risk does not escape the attention of the more alert proponents. Thus, one of them remarks that his approach does not mean that he underestimates the importance of any process of export diversification, and still less should it be viewed as an expression of yearning for the old forms of world trade and of the international division of labour.⁴²

In fact, these proponents base their criticism and warnings both on some specific forms of opening up to the exterior (such as those linked to assembly industries or 'free zones') and also, in other cases, on the nature of the more orthodox or 'ideological' policies reviewed above.

However, there are more general questions which transcend those aspects and have considerable significance for the topic of this study.

(a) *Nature of industrial exports*

One of these—as mentioned earlier—concerns the nature of the manufactured goods which have in the recent past constituted the main means of entering the central markets, i.e., non-durable consumer goods.

The criticism on this subject is well known

⁴⁰Otto Freyer, *World Market Oriented Industrialization of Developing Countries: Free Production Zones and World Market-Factories* (Federal Republic of Germany, Max Planck Institute, 1977), as quoted in Vuskovic, *op. cit.*

⁴¹P. Vuskovic, "América Latina ante nuevos términos de la división internacional del trabajo", *Economía de América Latina* (Mexico City), No. 2, March 1979.

⁴²*Ibid.*

and highly respectable, and ranges from the lower technological sophistication and low demand elasticity of such products to the possible effects on supply and prices in the countries of origin — a matter on which we commented earlier. Furthermore, from a dynamic standpoint, there is concern about the possible freezing of a pattern of trade which would reserve a place for the periphery only or primarily in those branches of manufacturing, with all the *relative* disadvantages and limitations this would imply.

Two aspects of the problem should be distinguished here: this path may be the most accessible in order for a developing country “to be able to enter the export market”; but this does not prevent it from continuing to diversify towards activities with greater technological potential and more dynamic demand.⁴³

In fact this has been verified in a number of countries recently, although naturally it is strongest and most prevalent in the more industrialized countries. Thus between 1965 and 1975, for example, Brazilian and Argentinian exports of capital goods increased their share of total manufacturing exports from 16.8% to 25.4% and from 14.7% to 18% respectively.⁴⁴

Naturally, this trend or possibility is by no means necessary or inevitable, and it would be naïve to underestimate the obstacles standing in its way, which will very often call for the intermediation of regional groupings, as will be

argued below. However, it would be even more mistaken to view it as a *cul-de-sac*.

Furthermore, it is worth stressing the historical perspective of the problem. As a general rule, and for obvious reasons, the industrial late-comers entered foreign trade not through the faster-growing, more sophisticated activities but through relatively simple manufactures accessible to their stock of human and material capacities.⁴⁵

Consequently, it is historically groundless and to some extent naïve to suppose that the periphery could immediately launch its manufactures exports in the branches that are technologically most complex and are decisively affected by factors such as economies of scale and entrepreneurial and State organization, which must be created gradually, often through the actual links with the world or regional markets themselves.

To close this discussion, and remembering the many allusions to the effect of the capitalist setting, it may be worth bearing in mind that the traditional or emerging trade structures also occur in relations between the periphery and the socialist countries, and also to a lesser extent among the latter. Thus most exports from the periphery to the socialist countries consist of commodities and light manufactures, and among the latter it is primarily the more industrialized economies which export the technologically more advanced products. Naturally, all this takes place within a setting of growth and change of those relations.⁴⁶

⁴³This concern has also been shown by economists of the centres, as may be seen from the following passage from a major article on the question:

“A serious approach to increasing the international division of labour in manufactures through foreign trade must adopt a more dynamic and longer-term point of view than current comparative advantages if the developed countries do not wish to be accused of a new wave of neocolonialism.

“While concentrating on labour-intensive products may be the only path by which a developing country can enter the export market, the earnings obtained from rising incomes should be invested in modifying the structure of exports. In the long term, the industries in which technological progress and future growth are highest must be widely distributed among all countries, developed or not, in line with the new lines of comparative advantage, just as they are currently distributed among the developed countries.” Hollis Chenery, “La división internacional de la fuerza de trabajo: el ejemplo en la industria”, *El Trimestre Económico*, (Mexico City), N.º 155 (July-September 1972).

⁴⁴Chenery and Keesing, *op. cit.*

⁴⁵The most conspicuous example is that of Japan, which has been described as follows in a well-known study: Japan first imported manufactures from more developed countries, then began to produce domestic substitutes, and finally managed to become an exporter of those products. At first, Japanese exports of manufactured products tended to go to countries which were less developed than Japan itself. Subsequently, it was capable of exporting to industrially more advanced countries, as its labour force became more skilled and experienced, the quality of its products improved and the commercial skills of its businessmen became more sophisticated. (S. H. Robock, “Una dicotomía falsa: industrialización a través de sustitución de importaciones o mediante industrias de exportación”, *El Trimestre Económico* (Mexico City), N.º 159.)

⁴⁶This statement is substantiated by examining the composition of the Soviet Union’s imports from developing countries. According to “Trade relations among countries having different economic and social systems”, prepared by the UNCTAD secretariat in July 1978, traditional items, including a variety of manufactured articles, made up more

(b) *The problem of wage levels*

The second objection in this field relates to the levels of remuneration in the export industries of the periphery. It is argued that these entail conditions of 'superexploitation', which are moreover a fundamental requirement for their development, with a number of understandable social and economic internal and external repercussions.⁴⁷

The existence of this problem cannot be denied, and to illustrate it some deplorable examples have been given of how in some places the low level of wages is emphasized as an incentive for attracting investment, above all from abroad to 'industrial free zones'.⁴⁸

However, in a proper appraisal of the question other considerations mentioned earlier in another context (see section 3 (c) above) must be taken into account.

Of course, the relative lowness of wages in the periphery is one of the main reasons for the viability of manufactured exports, in conjunction with other equally important factors such as the general level of development and size of the domestic market, resource endowment, geographical position, policies followed, and so on. These differences have always had some effect on the development of the international division of labour and of industry, by smoothing the way for newcomers to the manufacturing 'club'.⁴⁹ However, they have never been decisive, and therefore investment and industrialization have continued to be concentrated in the nucleus of central countries, in other words, where wage levels are highest.

than 82% of the total in 1975-1976, the remainder being made up of chemicals, machinery and transport equipment and manufactured articles (SITC section 6).

⁴⁷The concept of 'superexploitation' has a double meaning in the literature in which it is used: one is absolute and refers to the physical hardship of the work involved and the extremely poor conditions of subsistence; the other is relative and refers to the extremely unfair distribution of the value created by the labour force (between the latter and the owners of the means of production). In other words, a wage earner may be 'superexploited' from one standpoint or the other, or both at once. The lack of precision in the use of the concept makes it ambiguous, all the more so since the meanings are historically relative.

⁴⁸Freyer, *op. cit.*

⁴⁹As is well known, the United States is the great exception to this rule. The relative shortage of labour, the

The question becomes still clearer if one starts from the explicit or implicit (for lack of an alternative statement) proposal that wages in the export industries should be the same as those prevailing in the developed centres. Apart from the obvious obstacles such a situation would involve for international or regional competitiveness, it would also greatly increase structural heterogeneity (including of course social inequality) in the periphery, inasmuch as it would cause technical progress to be still more concentrated in that segment of the production structure, thus further hindering its spread throughout the economic and social structure (even with the necessary priorities). In a sense, it would involve establishing a developed enclave within an overall peripheral situation which would continue with average levels of remuneration and productivity merely a fraction of those of the industrialized economies; not to mention the relegation of the population and activities stagnating in the so-called 'primitive' strata.

In fact, paradoxically this argument tends to coincide with the orthodox approaches starting from a different standpoint. While the latter argue that industrialization in general and export activities in particular should meet international standards of efficiency, competitiveness and prices (and also wages, although this is a desideratum to be achieved at some indefinite point in the future), this approach sanctions manufacturing exports only if wage levels are on a par with those of the central economies.

A glance at CEPAL writings on the options raised by industrialization may be useful for shedding light on this problem.⁵⁰ In brief, CEPAL argued that international comparability should not be a guiding element in decisions on this process, since the latter is subject to a number of internal and external considera-

abundance of natural resources and other factors led to a relatively high wage level from the outset, which in turn spurred the advance and spread of technology. It must be stressed, however, that these circumstances have not recurred in the great majority of cases.

⁵⁰See, for example, R. Prebisch, "Theoretical and practical problems of economic growth" (E/CN.12/221), and *En torno a las ideas de la CEPAL; Problemas de la industrialización en América Latina*, *op. cit.*

tions—absorption of redundant labour; necessary impact of the introduction of technical progress on primary activities; effects on the external sector and terms of trade, general training, etc. Thus the decisions to be made in the process involve weighing up these elements and the relative advantages in the allocation of resources which are identified and assessed.

Paraphrasing this general argument, it could be maintained that the *essential* point as far as wages are concerned does not lie in the comparison of absolute levels between the periphery and the centre but rather in a comparison of levels *within* the developing economies. In other words, they might be lower in the periphery than in the centres, but what really matters is the relationship between wages paid in export industries and those typical of the peripheral economies as a whole, or, from a narrower standpoint, in comparable activities.⁵¹

This question clearly raises other problems which cannot be side-stepped. Chief among these are issues relating to the distribution of the income generated by the export sector. Let us assume that due to various factors—relatively low wages, incentives provided, creation or expansion of foreign markets and so on—a substantial surplus is created or increased. What happens to it? How is it distributed between the labour force, enterprises (national or foreign) and the State? Or in the case of a State-owned enterprise, between the State and the workers?

Some extreme replies may be imagined from the standpoint of the alternative doctrines. For some, the surplus should be absorbed by the labour force, with the deliberate or *de facto* purpose of raising wages to international levels, whereas for others it seems necessary, in the interests of competitiveness and of the requirements of accumulation, that the profits should go primarily to the owners of capital,

while wage rises should be held down to the lowest socially and politically acceptable level—although in the abstract it is also postulated that they should rise to international levels.

In both cases, it should be noticed, the surplus would fundamentally go to the private sector—except for the Treasury's usual share. In both cases, the productivity of labour or of capital is used to justify these aspirations. In addition, it seems clear that these are 'micro-economic' approaches in the sense that worker-enterprise relations are considered outside the global context of the system and its interrelations. The conflict of interests and classes is individualized or particularized, even though in the political formulation it is seen as a collective matter.

Hence these two extreme perspectives—which of course have their nuances and qualifications—neglect or underestimate the social origin and component of surpluses, and, if you like, of much of the profits or value added. This component stems from a number of different sources, ranging from the myriad influences of economic policy and politics to the significant contribution of the national heritage—resource endowment, accumulated know-how, inherited infrastructure, and so forth.⁵²

When this collective dimension is taken into account and weighed in the balance, it becomes less difficult to answer the question raised above. The heart of the matter is that the opposing claims of the labour force and of the owners/entrepreneurs must be harmonized with the social appropriation and use of some of the value created, a process which in all known capitalist and socialist systems takes place through the State (all the more so, obviously, in the case of State-owned or controlled enterprises). To some extent, this corresponds to what Raúl Prebisch has called the "socialization of the surplus", although the concept has other connotations in his work.⁵³

From the narrower viewpoint of this discussion, that approach would mean, roughly

⁵¹ There is no need to consider open or disguised unemployment, because this would be to take the hypothesis to an extreme. However, when studying the options of industrialization it has usually been considered that the use of idle human or material resources is an important factor in deciding on the economic and social justification of activities which do not satisfy orthodox canons.

⁵² See in this regard A. Pinto, "Concentración del progreso técnico y de sus frutos en el desarrollo latinoamericano", *El Trimestre Económico*, No. 125.

⁵³ See his articles on peripheral capitalism in issues 1, 6, 7 and 10 of the *CEPAL Review*.

speaking, that the levels and margins of wages and profits in export industries should not depart very far from the 'historical' and representative (i.e., more or less average) levels of the economy in which they are rooted, without prejudice to the preferential and qualified situations which might be created temporarily for their development or in the light of exceptional circumstances (for example, dangerous work, inhospitable location, etc.). Naturally, these general rules will inevitably be conditioned by the balance of power among the protagonists involved. Nevertheless, this does not negate the possible usefulness of this approach as an alternative to the simplifications or errors of the traditional approaches.

In brief, 'superexploitation' or the private retention (by entrepreneurs or wage earners) of the profits from the activities in question (whether or not their aim is to lead to equivalence with the industrialized economies or the international market) represent extreme options which may not necessarily exist in fact — and this is what has actually happened. Often the profits and wages of the export industries are above the average levels of the system and sometimes above those prevailing in the modern sector. However, it is usually also the case that direct or indirect fiscal action makes it possible to redistribute part of this surplus to the community, particularly if the activities are State-owned.

3. *Regional props*

Following this cursory review of some aspects of the state of supply and demand which affect the goal of 'industrializing' exports, mention must now be made of other more general factors.

The first of these is the present and above all the potential importance of regional and subregional trade in Latin America.⁵⁴

There is no need to review the theoretical and practical work of CEPAL in this field. As is well known, in the early 1950s it began stressing the need to progress beyond a form of

industrialization based on 'watertight compartments' as Raúl Prebisch put it. This was no doubt the first call for greater openness, which combined the need to continue the process in a broader, more favourable framework, boost manufactured exports and lay more solid foundations for directing the process towards the world market.

There is little doubt that the inherent difficulties in the road towards this objective were compounded in the mid-1960s by the relative easing of the external bottleneck, either because of the better performance of some commodity exports or due to the larger inflow of foreign credit. There are good reasons for maintaining that the latter was at least as important as the former, if not more so, in damping the drive towards integration.

The changes in the international setting during the present decade, and particularly the loss of dynamism of the central economies, may in some degree re-establish the priority of regional trade, which has continued to grow at a satisfactory rate. But it would be mistaken to assume that only a major external bottleneck could stimulate that trade. What is most significant is that the development of industrialization and the volume and growing needs of imports have opened promising horizons for reciprocal trade within the region.

Another point is that certain orthodox approaches claim to see some incompatibility between promoting regional agreements and taking advantage of the opportunities offered by international trade. The opposite view would appear to be better founded, however: i.e., that by affecting the speed of the process and the advance in product lines with greater export potential, progress in the first of these directions helps to create a more solid platform for seizing those opportunities. At least, this is what is suggested by experience in this field elsewhere, such as the EEC and the socialist bloc in Europe.

It is quite clear that the imperatives here vary according to the size of the domestic markets and other factors, but this does not warrant the deduction that the larger economies could remain indifferent to the potential of regional trade, especially since they have better possibilities of benefiting from it and

⁵⁴It has not been possible to discuss here the question of 'horizontal co-operation' among countries of the periphery.

their absolute dimensions are relatively small in comparison with the main industrial economies. For the smaller economies, on the other hand, membership in larger economic groupings enjoying reciprocal preferences seems to be an absolute *sine qua non* for the advance of their industrialization and their external sectors, despite the fact that such links present major difficulties precisely due to the more incipient state of that process.

Be that as it may, regional integration stands out as an essential ingredient of the industrial-exporting strategy in that it limits risks, increases opportunities and reduces dependence on the central economies.

4. *The role of the transnationals*

What part can or should the transnational corporations have in the effort to change the periphery's position in the world economy?

This issue is crucial to the matter, due to the dominant and often exclusive position of these corporations in the technologically more sophisticated industries which have the best external and domestic demand prospects. In other words, the chances of qualitatively diversifying the structure of manufacturing exports depend to a high degree on the part played by the transnational corporations, at least within the present context.

Past experience in this respect shows clearly that they have concentrated on the domestic market and that their propensity to import is far greater than their contribution to exports. In addition, it is equally well known that intrafirm transactions predominate in both these flows, thus giving rise to transfer pricing and other well documented shortcomings.

Various studies have shed light on this state of affairs,⁵⁵ although satisfactory or comp-

lete data are not available. For the purposes of this study it may suffice to consider the data in table 6, although these refer only to the manufactured exports of United States corporations.

As is perfectly clear, the bulk of these exports is directed towards the other central economies, and this also represents an appreciable percentage of the corporations' total sales. This figure is again high for the group of countries of Asia and the Pacific whose industrialization was developed on the basis of the external market. The picture is very different for Latin America, however. While current values rose appreciably between 1966 and 1974, their absolute level is low (US\$ 1,421 million compared with total exports of some US\$ 40 billion in 1974), as is the percentage this represents of their global sales (less than 7% in 1974), which are primarily directed to domestic markets, as was emphasized above.⁵⁶

Some researchers in this field, such as C. Vaitos, are sceptical about any change in these relations. He argues that, at least in the medium term, it is unlikely that the transnational corporations will make a major contribution to the world redeployment of manufacturing activities through strong exports from the less developed countries. He believes instead that their major role will continue to be in import-substitution manufacturing activities in those countries.⁵⁷

Without insisting on the interrelations and possible reciprocal reinforcement of these two approaches, it is worth recalling some of the progress made in involving the transnational corporations in the export drive. As is pointed out in a study referred to earlier, "in recent years ... exports by TNCs of industrial goods have become sizable, in part because developing countries have been bringing pressure to bear on transnational corporations to export more; in some cases the achievement of specified export levels has been made a condition for permission to expand plant and to import goods. In the case of new entrants in the industry concerned

⁵⁵See, for example, UNCTAD, "Transnational corporations and expansion of trade in manufactures and semi-manufactures: the role of transnational corporations in the marketing and distribution of exports and imports of developing countries" (TD/B/C.2/197); UNCTAD, *Dominant Positions of Market Power of Transnational Corporations; Use of the Transfer Pricing Mechanisms* (United Nations publications, Sales No.: E.78.II.D.9); and C. Vaitos, "World industrial development and the transnational enterprises: the Lima target as viewed by economic actors" (Sussex University, mimeo, 1978).

⁵⁶The higher figure in the case of Argentina appears to be due to exports of transport equipment to other Latin American countries, including Cuba.

⁵⁷Vaitos, *op. cit.*

Table 6

MANUFACTURING EXPORTS BY FOREIGN^a SUBSIDIARIES OF UNITED STATES
CORPORATIONS IN 1966 AND 1974

(Millions of dollars)

	Total exports		Exports to United States		Exports to other countries		Exports as a percentage of sales	
	1966	1974	1966	1974	1966	1974	1966	1974
World	8 817	40 998	2 679	11 228	6 138	29 770	18.6	23.3
Developing countries	578	2 792	219	1 024	359	1 768	8.4	10.6
Latin America	362	1 421	129	509	233	912	6.2	6.8
Argentina	...	295	...	73	...	222	...	10.4
Brazil	...	423	...	175	...	248	...	5.5
Colombia	18	97	4	11	14	86	5.9	8.2
Mexico	49	233	23	152	26	81	3.2	4.7
Other countries of Asia and the Pacific	208	1 184	88	480	120	704	23.2	24.9

Source: Bureau of Economic Analysis of the United States Department of Commerce, *Survey of Current Business*, vol. 56, No. 5 (May 1976), pp. 25-34.

^a Majority control.

and in other import-substitution activities, prior commitments concerning exports have also been required".⁵⁸

Bearing these observations in mind, it is worth noting that not too long ago—even as late as the mid-1960s—it was difficult to find Latin American manufactured products, particularly equipment and machinery, in the markets of the region. Furthermore, various cases were known in which the parent companies of international corporations had actually prevented such exports.

There is no need to stress that this panorama has changed substantially. Unquestionably, the exports of the larger and more industrialized countries continue to predominate, and exports to the central markets are still small—although they too have begun—but these limitations do not belie the fact that bargaining power *vis-à-vis* the corporations has grown, despite the long-standing obstacles which still remain and the new ones which are arising.

In fact, in studies of this and other questions there is usually a lack of historical perspective and of understanding of the contradictory

and continually changing nature of the courses of the economy and society. For this reason, facts and considerations such as those given above are usually mingled with professions of naïve optimism or, worse still, uninspired conformism. But the picture is different if the identification of new developments—promising or negative, or both at once—goes hand in hand with a critical spirit and the search for positive transformations, as has usually been the case in the approach taken by CEPAL.

Consequently, it does not seem justified to reject out of hand or entertain excessive reservations about the hypothesis of a greater contribution of foreign corporations to the diversification of manufactured exports. Ultimately, this will depend to a large extent on how the questions discussed below are tackled and resolved.

5. *The responsibility of national policies*

One fundamental question concerns the nature of, and the opportunities opened up by, national policies and decisions in this field and in relation to the overall problems we have been examining.

⁵⁸ UNCTAD document TD/B/C.2/197, para. 11.

The responsibilities of the State are as broad as they are pressing; and in practice in most cases they have been faced up to in varying degrees and manners. Of course, there are exceptions, but these appear as eccentric and probably transient deviations from the rule; and besides, as mentioned above, even in these cases the State has in fact exercised its power, although in a direction opposed to, or different from, the predominant tendency.

This public role is obviously conditioned by the social and political power relations within each country and at the international level.

The picture formed by the trends which we have examined would appear to indicate that there is a sizable margin for manoeuvre to orient the industrialization strategy in such a way that it helps to secure a different form of insertion in the world economy, by entering into partnership with the transnational corporations and bringing pressure to bear upon them. The familiar view which almost completely identifies national entrepreneurs (private and public) and the State technocracy with foreign interests now appears rather less convincing or indisputable than a few years ago —although this is not to neglect or underestimate the problem. This is the result both of the strengthening of these circles' own interests and objectives and also of the emergence of new forms of association with foreign corporations which go beyond the simple choice between foreign or national control.

In addition —and what is perhaps more decisive— this change stems from the upheavals which have occurred in the central economies, particularly the United States, and also from the shifts in relative power and the increased competitiveness among them, as well as the presence of the socialist group. The first of these has increased the periphery's degree of independence and the second has strengthened its hand at the negotiating table. It is enough to think back to the picture prevailing 10 or 20 years ago in this sphere to realize the extent and importance of these changes.

All in all, it is clear that the possibilities which have arisen vary significantly according to the specific weight of the countries. And here we encounter once again an aspect which necessarily recurs in CEPAL analyses: the impor-

tance of regional and subregional integration. Both from the standpoint of the requirements and opportunities of industrialization, inward- and outward-directed, and from that of the periphery's bargaining power at the world level and *vis-à-vis* foreign corporations, this must be a key objective, underpinned, of course, by the preferential development of domestic markets.

We shall not discuss here another vital aspect of the question, namely, the precise nature of the policies and instruments designed to carry these purposes into practice. There is a wealth of Latin American experiences in this field in the last decade, analysed in many studies.⁵⁹ We shall only point out that while considerable progress has been made in studying and identifying the factors designed to promote exports, much remains to be done in terms of including this objective within the global industrialization strategy and the process of integral development.

6. Summing-up

The following basic conclusions can be drawn from the foregoing discussion:

(i) to secure relatively dynamic development in the forthcoming decades will call for the maintenance or intensification of the flow of exports, and particularly of manufactured exports, because these offer better prospects than commodity exports, constitute a requirement for fostering industrialization and represent the main path for achieving a new form of insertion in the world economy;

(ii) this objective does not involve a structural change in the nature of Latin American industrialization in the sense of a *volte-face* or an opposition between the inward-directed or outward-directed forms of the process. The two are complementary, and domestic markets will continue to be its main support —reinforced by regional and subregional agreements in this field;

(iii) some variants of 'openness to the exterior' have rejected or underestimated this relationship, advocating instead a line of conduct which follows or reproduces nineteenth-centu-

⁵⁹ See in particular CEPAL, "Políticas de promoción de exportaciones" (E/CEPAL/1046 and Add. 1-10).

ry approaches to the question involving various potential or already clearly visible dangers to economic, social and political variables of the utmost importance;

(iv) a suitable strategy in this sphere—at least according to the standpoint taken by CEPAL studies—must from the outset include the question of the promotion of manufacturing exports in the broader framework of the process of industrialization and of development in general;

(v) the analysis of the present or foreseeable conditions affecting the strengthening of this process by means of such exports suggests that this is a viable approach, despite the constraints which have appeared in the central markets, provided that the policies followed are capable —*inter alia*— of developing regional links, negotiating with the transnational corporations and ensuring the State's role of guide and guardian.

Domestic technological development

Ricardo Cibotti and
Jorge Lucángeli***

A considerable proportion of the studies carried out on technical progress in Latin America has been based on the assumption —often implicit— that the technological behaviour of our societies as regards the introduction of new technical processes or products is almost entirely passive. What is more, economic theory too adopts this assumption in explaining the ways in which technical know-how is transferred from the developed to the developing countries.

The present article maintains that domestic innovative activity does exist and that many production units which are recipients of foreign technology play an active role by adapting the technical know-how received to local conditions, devising new technical variations within the limits permitted by the original technology, and creating new know-how to resolve the problems posed by the putting into operation of new equipment and the praxis of production.

The article begins by indicating the main characteristics of domestic technological development (DTD) (chapter I), and goes on to describe the typical forms or patterns it assumes under differing conditions that depend upon the line of conduct followed by entrepreneurs with respect to technology (chapter II). Some aspects of the dimension of DTD are then detailed, and an account is given of the main results achieved (chapter III). The article next discusses the problems of disseminating throughout the production apparatus the innovations and adaptations introduced by individual plants (chapter IV); reviews the conditions which economic trends impose upon the structure of DTD (chapter V); and, lastly, formulates a few reflections on the possibilities of strengthening DTD, placing the emphasis on promotion of the research and development activities (R&D) that are undertaken by manufacturing enterprises (chapter VI).

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I

Main characteristics

It would be extremely difficult to embark upon a description of domestic technological development without first fitting it into the broader frame of reference afforded by the whole subject of technological change. Its main characteristics —linkage with minor innovation, location at the level of the production unit, situation in a context where major innovations are lacking— are in fact special aspects of technological change proper to the Latin American economies.

Technological knowledge —that is, the know-how applied to productive activity— does not constitute a fixed or static stock, but is constantly being altered and increased. It is precisely the rate, pattern and origins of the additions to this stock that constitute the keynote of the theory of technical change. This theory, following in Schumpeter's footsteps,¹ regards as an innovation any change in a production function which is of the first order of magnitude. The know-how relating to this change must be 'new', and new all over the world. Schumpeter also assumes perfect dissemination of such know-how, so that it is easy to distinguish between the innovator-entrepreneur and the imitator-entrepreneur.

Thus formulated, however, the concept leaves aside a whole series of modifications of technical know-how which, although they are of 'minor' magnitude, are the result of research undertaken within enterprises, with a view to adapting and/or improving production processes and/or product designs.²

Thus, two types of innovation can be identified: on the one hand the major innovations which imply new production functions or important changes in those already existing or in the design of new products; and, on the other hand, the minor innovations which are incorporated in the body of improvements and adaptations introduced into production processes,

¹ J. Schumpeter, *Business Cycles*, New York, McGraw Hill, 1939, p. 94.

² J. Katz, *Importación de tecnología, aprendizaje e industrialización dependiente*, Mexico City, Fondo de Cultura Económica, 1976, p. 57.

equipment and/or product designs already existing. It cannot be asserted that there is a clear dividing-line between these two types of innovation, but stress needs to be laid on the existence of a set of innovations which, although they cannot be described as completely novel or of the first order of magnitude, are likewise the result of a systematic quest whose aim is to ensure that better use is made of the available stock of technical know-how.

Analysis of the technological behaviour of production units reveals the virtually permanent existence of a group of activities whose purpose is to adapt the techniques in use to the specific conditions characterizing production at any given time. The process to which these activities give rise, and which we are calling here DTD, generates minor innovations which make the aforesaid adaptation possible, and, furthermore, tend to step up the performance of the original techniques, raising the productivity of equipment, saving inputs and perfecting product designs and standards of quality.

Thus, within the industrial complex, a group of activities —DTD— takes shape, which, as we shall see, is related to the content of such concepts as 'entry into operation' of a plant, shop-floor technical assistance, 'learning curve' generated in the praxis of production, research and development, etc. In the conditions proper to the Latin American countries, DTD results, as already shown, in the adaptation of the existing technology and the generation of minor innovations, that is, such innovations as, without substantially changing production processes or product characteristics, make possible what are sometimes significant increases in productivity. This throws into relief the first of the dominant features of DTD, i.e., its close association, save in exceptional cases, with minor innovations.

A second main characteristic of DTD, namely, its location within the individual plant, comes to light when the source of technical progress in the production unit or at the level of the firm is investigated. Admittedly, important technological changes in local plants stem from the introduction of imported technologies which involve major innovations. These technologies are brought in mainly

through their incorporation in the capital goods purchased or in new product designs, or through the use of licences. On the other hand, the solution of the problems posed by the assembly and operation of the production unit, which emerges out of such tasks as those already mentioned (shop-floor technical assistance, adaptation to the characteristics of inputs and labour, adjustments in product designs according to the specifications of demand), also results in a form of technical progress linked to minor innovations whose source is in domestic technological development. In other words, DTD is located within the plant inasmuch as the aim pursued is to resolve problems arising out of the technical operation of the plant itself or problems of external origin by which its operation is affected. The fact that DTD takes place in the production unit and is closely connected with its operational problems is another of the main characteristics of this activity.

There can be no doubt that between the two forms of generation of technical progress there are broad areas of complementarity. For example, the work of assembling new equipment and putting it into operation is sure to be accompanied by tasks of adaptation and improvement, and in turn the experience deriving from management of the production process widens the range of options for the selection of new technologies.

But it may also be possible for these two forms of generation of technical progress to take each other's place. An accumulation of minor innovations may give rise to a significant change in the original production function, even though the intention behind the activities included in DTD was not that of generating a major innovation.

Attention has been drawn so far to two main characteristics of DTD: it takes place in manufacturing plants and it results in minor innovations. Later we shall add other characteristics when describing the forms it assumes, but the features mentioned are those that individualize it within the process of technological change.

However, a third characteristic may be added here. Save in a very few exceptional cases, this kind of development occurs, in Latin

American conditions, in a setting where major innovations are not common. This is why the analysis of DTD becomes particularly meaningful when the subject of technology in developing countries is under consideration.

Of course, minor innovations play their part in technical progress in the developed countries; there are even studies which quan-

tify the far from slight importance attaching to them in the evolution of productivity in certain branches of industry.³ But these minor innovations occur concurrently with the major innovations that become the most outstanding feature of technical progress, to which preeminence has been given by economic theory and empirical studies in the countries concerned.

II

Forms taken by domestic technological development

The image of an industrial plant that is formed at first glance may give a misleading impression of its nature. In every plant, at any given moment, there is a fixed composition of production equipment, a structure of labour skills, a production layout, a specific range of products offered on the market, etc. In this sense, a static view of the plant is correct, and each of the elements mentioned may remain constant for a more or less lengthy period. Moreover, this does often happen, and the plant will operate efficiently in so far as no change in external circumstances takes place to compel it to alter some of the elements in question. A variation in labour or input costs, a change in the determinants of demand, a reduction in the costs of competitors, are some of the exogenous factors which may conduce to a change in the former static situation of the plant. If the firm does not react intelligently in face of these factors it will lose some of the efficiency it has gained.

But there are factors within the plant, too, which make for changes in the *status quo*. The experience gathered in the production process itself may point to new ways of improving productivity, reducing costs, making more efficient use of inputs, etc. Fortuitous circumstances such as damage to machinery may mean that in solving the problem thus created a better situation is reached than existed before. Again, as a result of the incorporation of additional equipment consideration may be given to the possibility of changes throughout the production process. The know-how which is generated as the internal modifications neces-

sitated by changes in the above-mentioned factors are put into effect is yet another source from which proposals spring for altering, adapting, improving, etc.

In this latter sense an industrial plant may be held to have a dynamic nature, or at least to display dynamic qualities, disregard of which jeopardizes the economic future of the enterprise or dooms it to operate with only mediocre results. It is precisely in the framework of this dynamic aspect of the industrial enterprise that the domestic technological development which we are describing and analysing has its place.

This development assumes diverse forms or patterns, sometimes differing widely from one another, but having in common the generation of technical know-how. The way in which they vary depends upon the causes that act as a spur to the creation of such know-how and upon the line of conduct adopted by the firm in face of these causes. That is why, when an attempt is made to classify the typical forms taken by domestic technological development, entrepreneurial behaviour becomes a major factor in defining the elements of such a classification. The one presented below makes no claim to be exhaustive but is intended rather to indicate the

³In this connexion, see two studies which underline the importance of minor innovations in the United States: S. Hollander, *The sources of increased efficiency*, Cambridge, Massachusetts, MIT University Press, 1965; J. L. Enos, "A measure of the rate of technological progress in the petroleum refining industry", *Journal of Industrial Economics*, Oxford (UK), June 1958.

varieties of DTD and to amplify the description of it offered here.

The *first* form it may take is proper to the task of installing capital equipment and putting it into operation. In such cases it commonly happens that the operation of this equipment has to be adapted to specific environmental conditions different from those prevailing in its country of origin. It must be borne in mind that both the technical specifications of the equipment and the layout of the plants are generally highly standardized, and any variation in local conditions with respect to those of the country of origin (climate, quality of inputs, technical level of the labour force, market size, range of final products, etc.) make adaptations necessary which are ultimately reflected in modifications of the imported technology.

It may often be noted that when a plant is installed it does not attain the output levels indicated in the engineering blueprint, largely because, as has already been pointed out, these plant designs are not adapted to local conditions and the firm's knowledge of the production process being installed is imperfect. After a time, by means of creative and adaptive technical work, the plant may approach the projected production capacity and even exceed it, if local conditions so permit and if intelligent use is made of the advantages they may offer.⁴

Among the examples that might be cited in this connexion, perhaps the most representative is the installation and inauguration of the blast furnace at the USIMINAS steel mill (Belo Horizonte, Brazil). During its first fifteen months in operation work had to be done, on the one hand, to adapt the operation of the blast furnace to the qualities of the coke and iron ore, which did not match the conditions assumed in the original design, and on the other hand, to reduce requirements of these inputs per ton of iron produced.⁵

⁴See J. Katz, *Creación de tecnología en el sector manufacturero argentino*, IDB/CEPAL/IDRC/UNDP Research Programme in Science and Technology (henceforward referred to as the IDB/CEPAL/IDRC/UNDP Programme), Buenos Aires, 1976, pp. 8-11.

⁵See C. Dahlman and F. Fonseca Valadares, *From Technological Dependence to Technological Development. The case of the USIMINAS steel plant in Brazil*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires,

The modifications and minor innovations to which the above-mentioned activities give rise, as well as the know-how gained by the engineering cadres in putting them into effect (learning curves) differ according to the type of contract under which technical designs are acquired and the characteristics of these; the method of purchasing equipment, i. e., as an 'open package' or by the 'turn-key' system; the calibre of the local engineering cadres, etc. When equipment is purchased as an 'open package' the technical know-how obtained is greater than in the case of a 'closed package' and the technical cadres of the plants become better prepared for operating them. Moreover, when an 'open package' is purchased, it falls to the technical cadres to take decisions on many aspects of basic engineering and engineering detail, before the equipment is installed, and in this connexion they have to put into practice the know-how accumulated in dealing with production problems. All this results in a much more profitable technological exercise than can be derived from a single 'closed package' purchase.⁶

The obvious inference is that a preference for one or the other system largely depends upon two main factors: on the one hand, upon the experience accumulated by the firm undertaking investment in industrial production; and on the other, upon labour market prospects in respect of the technicians and skilled workers required. In countries with little industrial experience there is a propensity to purchase by the 'turn-key system', above all in the case of branches of industry which do not already exist in the country, or are only in an incipient stage. This tendency is also observable in the more advanced countries of the region, however, in

1978, pp. 129-139. In reality, the case of USIMINAS is representative of a firm whose technological activities embrace all the typical forms of DTD reviewed here; the last of these (R&D) has even acquired such great importance in this enterprise as to enable it successfully to tackle problems proper to the other forms.

⁶For a discussion of the relations between types of contract and learning curves of design engineering cadres on the one hand and plant engineering cadres on the other, see F. C. Sercovich, *Desarrollo de la capacidad de ingeniería en el sector químico-petroquímico. Delimitación metodológica de un campo de estudio*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1977.

plant incorporating new technologies very different from those already familiar, or when the entrepreneur sets much too high a value on the guarantees offered by the enterprises selling the plant, even at the risk of increasing his degree of dependence upon these firms. The choice is also affected by the financing facilities extended by the suppliers, who may propose more advantageous terms for a turn-key purchase.

A *second* form or pattern also derives, like the foregoing, from an explicit decision on the part of the entrepreneur with respect to the alternative of renewing his capital equipment, and therefore introducing new technology, or improving the existing equipment by the adoption of changes with a view to raising productivity, increasing the volume of output or offering new products, without replacing equipment on any considerable scale. In this latter case, a form of DTD will be involved that implies important technological activities, to cope with which the firm must have accumulated experience and followed through a learning curve conceivable only where a quite high degree of industrial maturity exists. The factors which would incline an entrepreneur to tackle this second form of domestic technological development are, *inter alia*, the relative prices of capital and of specialized manpower (necessary for the adaptations and improvements to be carried out), and market uncertainties over the medium term.⁷ For example, the Argentinian cigarette industry, during the period 1966-1976, opted for the introduction of improvements in its equipment rather than the purchase of new machinery. Apart from the factors indicated, the low rate of return that this branch of industry was obtaining, as well as the stringent restrictions imposed on imports of equipment, were responsible for this decision.⁸

The form of DTD just described stems

⁷ See A. Canitrot, *Un esquema para evaluar la significación de las variables microeconómicas en el análisis de decisión de incorporación de tecnología*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1977.

⁸ See J. Fidel, and J. Lucángeli, *Costo y beneficio de distintas opciones tecnológicas en el marco de un oligopolio diferenciado: el caso de la industria del cigarrillo*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978, pp. 19-21.

from an investment decision. The entrepreneur, in order to attain a specific production capacity, opts for introducing improvements in his equipment instead of replacing it or putting out new products.

A *third* proceeding also includes among its results the introduction of changes in equipment or in products, but basically derives from a decision to secure an overall reduction of plant costs. Among the factors immediately underlying this form of DTD are the behaviour of competitors, a rise in the prices of certain inputs of key importance for the production process, or a relative shortage of certain supplies or of technicians and skilled workers.

A *fourth* type of DTD consists in activities which represent a response to operational problems arising when the plant has reached the stage of normal operation. They may be undertaken for a wide variety of causes: changes in the product market, alterations in inputs, technical problems connected with the maintenance of the equipment, etc. Many of these activities are of the type termed shop-floor technical assistance, and, generally speaking, they mean almost permanent work for the engineering cadres that are responsible for keeping up or raising the plant's level of output.

In the rayon factory belonging to the firm of DUCILO S.A., in Argentina, these shop-floor technical assistance activities resulted in significant increases in productivity. Increases in spinning speed (in response to the expansion of demand) and in the average denier of the yarn accounted for two-thirds of the rise in labour productivity in the factory during the period 1941-1967.⁹

In the steel-making firm of ACINDAR, also in Argentina, 75% of the projects in a representative sample of the enterprise's technological activity in 1970-1974 were found to be of this type, since they were motivated by specific market requirements, by shortages in the supply of raw materials, by production problems deriving from difficulties with the proces-

⁹ See J. Katz *et al.*, *Productividad, tecnología y esfuerzos locales de investigación y desarrollo* IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978, p. 31.

ses in use, and by defects in the quality of the end product.¹⁰

In the Latin American countries with the strongest industrial tradition this shop-floor technical assistance is very common, and is usually the most representative form of domestic technological development. A point to note is that it does not depend so much as the preceding forms on explicit entrepreneurial decisions in face of exogenous circumstances, but rather upon the force of circumstances within the plant. In so far as the enterprise is capable of undertaking these activities a technological 'learning curve' is gradually generated which is essential for the performance of other tasks, such as those comprised in the preceding forms of DTD.

The patterns described up to now relate mainly to changes in process techniques, but undoubtedly similar situations may arise in connexion with product technology. Thus a *fifth* form of domestic technological development appears, linked to the characteristics of the products with which the factories supply the market. The activities which this form of DTD comprises are generally prompted by the requirements of demand: quality, durability and performance of products, introduction of features which make them more attractive to consumers, adaptation of designs from abroad to local consumer conditions and habits, etc. These activities, however, imply not only the modification and adaptation of the article produced, but also adjustments in the production processes which will increase in magnitude commensurately with the importance of the changes introduced in the products.

Lastly, a *sixth* form of DTD consists in explicit 'research and development' activities. This kind, the least frequent in the region's manufacturing sector, takes in and draws sustenance from the experience gathered through the forms of DTD previously described; at the same time, however, it is not entirely dependent upon the contingencies of the production process, or upon market conjunctures, but un-

dertakes tasks on a systematic basis for the purpose of increasing the stock of scientific knowledge and technical know-how and using it in devising new applications.¹¹ A significant change in the characteristic of the end products of the plant, an improvement in important aspects of the production process, or the creation of new products or processes, are proper to this type of technological development. One of its basic characteristics is that it operates in such a way as to make it possible to systematize the know-how generated through the forms of DTD described above, and also to obtain generally applicable knowledge. The innovations to which it gives rise are consciously sought for their own sake, instead of resulting from activities linked to the expansion of production, to problems of plant operation or to the market circumstances of the moment. It must be stressed, however, that, as already stated, this last form of DTD is not independent of the others either. The staff of research and development departments in industrial establishment are in close touch with production activities, and an interchange of technical personnel often takes place between what might be termed the sphere of production and that of research. What really matters, where this form of DTD is concerned, is the existence of permanent research and development activities within the plant, which undoubtedly implies a special entrepreneurial decision in the technological field. Such a decision involves explicit considerations as to the technological future of the enterprise, reveals competitive drive, and above all shows that a high value is set on the role of technical progress in the economic performance of the firm. These research and development activities are conducted by teams which are closely linked to the plant, or which may also be set up as firms of engineering consultants not only serving the plant to which they are attached but also selling services to others, and thus adding a new economic dimension to the enterprise.

The foregoing description of the typical

¹⁰See P. Maxwell, *Implicit R&D Strategy and Investment-Linked R&D. A Study of the R&D Programme of Argentina Steel Firm, ACINDAR S. A.*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978, pp. 23-30.

¹¹For a precise definition of the concept of research and development, see C. Freeman, *The Economics of Industrial Innovation*, Harmondsworth, Penguin Books, 1974, Appendix A, pp. 311 *et seq.*

patterns followed or forms assumed by domestic technological development suggests that they constitute a sort of sequence extending from those associated with installing equipment and putting it into operation to those which call for a quite high degree of maturity in the branch of industry and the producer plant concerned. The various forms of DTD do not necessarily appear in the sequence indicated, for the different activities they involve may be simultaneously carried on. For example, shop-floor technical assistance is an almost permanent activity, pursued alongside others; those arising out of the introduction of new capital equipment determine the need to make changes in the more old-fashioned equipment which remains in use.

The remodelling of equipment as an alternative to purchasing new machinery, and the adjustments made with a view to reducing plant costs, imply similar technological activities, the results of which in many cases serve both ends. In practice, as already stated, the forms assumed by DTD are differentiated not so much by the type of activity they entail as by the firm's behaviour in face of specific problems.

Nevertheless, the above-mentioned sequence is consistent with noteworthy empirical observations relating to the plant's accumulated stock of production experience and to the calibre of its technical cadres. In so far as the stock increases and the calibre improves, more and more complex tasks of technological adaptation and creation can be attempted, and, moreover, the firm will be in a better position to select the technologies to be incorporated.

The handling of 'packages' of technology and the conduct of systematic research and development activities would be a difficult matter in an economic milieu with little industrial experience, where firms are just embarking on production and there is no adequate supply of technical personnel to form experienced engineering teams. While the activities carried out in the field of adaptation and generation of technology may simultaneously pertain to several of the typical forms of DTD described, their quality and technical level will, in most cases, be conditioned by the degree of maturity not only of the plant but of the branch of industry to which it belongs.

III

Dimensions and results of domestic technological development

Out of the set of elements and typical features so far incorporated in this sketch of the nature of domestic technological development, we are going to concentrate attention, for the moment, on the one which characterizes it in the context of underdevelopment. It should be stressed, from the outset, that DTD is not inherent in any and every situation of underdevelopment. Logically, for it to exist on a reasonable scale, the country's industrial sector must not be too small, although neither enclaves that possess, in our opinion, a technological process peculiarly their own, which evolves within the enclaves themselves and on which the condi-

tions prevailing in the country have only a very slight impact.

Setting aside these two situations, there remains a category of countries in which the development process has been accompanied by a correlative growth of the industrial sector, with degrees of maturity that vary from one country to another, but all sharing the common feature of great technological dependence on the developed world. These may be described as countries in which industrialization is belated, that is, which have only recently attained a stage of industrial development that was reached some decades ago by Japan, Italy, etc.,

while these in their turn lagged behind the United Kingdom and the United States in this respect. The chief difference, as regards technology, between the belatedly industrialized countries and those of the rest of the underdeveloped world lies in the fact that the latter have not yet arrived at the stage in which, concurrently with the introduction of foreign technologies, domestic creative capacity is to be found. Among the Latin American countries, it may be asserted that Argentina, Brazil, Mexico and Colombia at least have sufficient capacity to generate an internal flow of technological know-how complementary to imported technology.¹²

In these countries, therefore, domestic technological development has acquired a dimension much greater than is attributed to it in various studies on the problems of the region. Most studies of this kind focus their attention on the effects of the absorption of foreign technology on our economies, since what they generally analyse is the impact of major innovations on employment and domestic capital accumulation. Various investigations show that domestic technological development is thriving, at least in the more industrialized countries of the region. The capacity for adapting foreign technology and the changes which this undergoes through the introduction of minor innovations afford a whole range of interesting results with respect to the generation of learning curves and the consequent improvements in the shop-floor technical assistance and research and development cadres, as well as in the technical level of local engineering groups.

A first point worth noting is that expenditure on research and development is acquiring increasing importance in the context of the scientific and technological systems of these countries. In Mexico, such expenditure, which covers both basic research and applied research and experimental development, rose from 0.06% of the gross domestic product in 1964 to 0.03% in 1976.¹³ A similar increase is to

be seen in Brazil, where resources earmarked for scientific and technological development activities soared from 440 million cruzeiros in 1970 to 6,840 million cruzeiros in 1975 (at constant prices).¹⁴

The aim pursued here, however, is not to analyse the creation of know-how in the context of a national scientific and technological system, but merely to show the dynamism that it is acquiring. If innovative activity within manufacturing industry in the above-mentioned countries is examined, it will also be seen that the firms' expenditure on technological research and development is considerable, and is positively associated with increases in labour productivity.

On the basis of a field study of a sample of 200 establishments in Argentina, it was estimated that in 1968 enterprises as a whole had expended about 33 million dollars on engineering activities and on other associated technical work. In turn, it was shown that the growth rate of productivity was statistically linked to accrued expenditure on domestic R&D.¹⁵

Similar conclusions are reached in another study relating to manufacturing industry in Colombia.¹⁶ This study, based on a sample of about 90 enterprises, shows that in some sectors (metal-working and electrical apparatus industries) outlays on research and development amounted to more than 2% of the value of sales, and it also finds a significant statistical relation between research and development expenditure and increases in productivity.

By virtue of the firms' deliberate efforts, and of the learning curve implicit in the work of production, a domestic technological capacity is gradually generated which is reflected in the improvement and adaptation of processes and/or products and makes it possible to improve upon the performance of the original technol-

¹² See J. Katz, *Cambio tecnológico, desarrollo económico y las relaciones intra y extra regionales de América Latina*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978, pp. 7-9.

¹³ See Alejandro Nadal Egez, *Instrumentos de política*

científica y tecnológica en México, El Colegio de México, 1977, pp. 22-25.

¹⁴ See Office of the President of the Republic, *II Plano Básico de Desenvolvimento Científico e Tecnológico*, Brasília, 1976, pp. 27-31.

¹⁵ See J. Katz, *Importación de tecnología, aprendizaje e industrialización dependiente*, op. cit., pp. 97-101.

¹⁶ See M. Ramírez Gómez and D. Sandoval Peralta, *Tecnología en el sector manufacturero colombiano*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978.

ogy. In those plants in which modifications have been introduced in processes over a long period of time through adjustment of equipments to changing technical and economic conditions, a technological profile emerges that differs from the original design and may in some cases come to be regarded as a new design, with significant advantages in view of the conditions prevailing in the local milieu. This explains, albeit only in part, the correlation observed between the technical capacity evolving in consequence of this domestic technological development and the successes achieved by several Latin American countries in exports of manufactures, 'turn-key' sales of plant and exports of industrial engineering designs, although recognition must also be accorded to the important role played in the promotion of such exports by subsidies and other economic policy measures (exchange rate, credits, etc.). It should also be pointed out that the great majority of these external sales have been made to countries in the region and to others with characteristics similar to our own.¹⁷

From the foregoing paragraphs it can be seen that the research referred to has shed light on the existence and order of magnitude of domestic technological development and has probed into the scope of its potentialities. All this research has pivoted upon microeconomic studies, examining DTD from within the firms or factories: an approach which has permitted a detailed breakdown of it with a view to understanding it more fully. Furthermore, as a result of these studies there has been some speculation on the manufacturing sector's prospects of progress in the field of technology and the effects of this on the development of our countries. According to these conjectures, the more advanced countries of the region have possibilities of generating technological flows to complement—and also to take the place of—imported technology which put them in a position

¹⁷ See J. Katz and E. Ablin, *Tecnología y exportaciones industriales: Un análisis microeconómico de la experiencia argentina reciente*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1976; and J. Katz and E. Ablin, *De la industria incipiente a la exportación de tecnología: la experiencia argentina en la venta internacional de plantas industriales y obras de ingeniería*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978.

to increase domestic productivity, step up exports of technology incorporated in consumer and capital goods, and compete, in certain areas of the international market, in the field of engineering designs.¹⁸

In short, this domestic technological development produces results which are closely linked with the economic growth of the countries concerned. The role played by DTD in increasing plant productivity and in adapting products and processes to local technical and economic conditions, its influence on the possibilities of exporting manufactures and even technology, the fact that it acts as a mechanism for improving skills and that it generates know-how which facilitates the selection of the technology to be incorporated, etc., are eloquent testimonies to its importance as a positive factor in economic growth.

In this context something may usefully be said of the effects of DTD on two important aspects of industrial development: the characteristics of the technological profile which is shaped by the adaptive and creative activities mentioned above, and their incidence on the absorption of labour.

As regards the first aspect, the question is whether DTD succeeds in altering the basic characteristics of the original technology. This point is of importance in so far as imported technologies are not felt to be the best suited to conditions in developing countries. To put it another way, does domestic technological development influence the shaping of the technological profile of manufactures by changing the profile derived from technologies incorporated from abroad? Although there are examples to show that this is what has happened in some cases, it is difficult to formulate a general and conclusive opinion on the subject.¹⁹

¹⁸ See J. Katz, *Cambio tecnológico, desarrollo económico y las relaciones intra y extra regionales de América Latina*, *op. cit.*

¹⁹ The studies carried out on technological change in the cigarette industry in Argentina show that 100-mm and 120-mm cigarettes are produced with third-generation equipment in which adaptations and minor innovations have been introduced, whereas in the developed countries production of such cigarettes calls for equipment incorporating more recent technologies. Thanks to these adaptations and minor innovations, too, significant increases have been recorded in the productivity of both machinery and

Again, adaptive and innovative activities in the Latin American countries tend to recognize the market as an important determining factor and consequently they may be said to generate technological profiles more in keeping with real conditions in the region. But, on the other hand, these activities, which are carried on within each production unit, are also a response to the special needs of the individual plant, such as, for example, more efficient utilization of the stock of machinery it already possesses, or adjustment of the production process to the conditions imposed by installation of new equipment in some of its stages. If the technological profiles which factories are thus gradually acquiring are viewed in the aggregate, the resulting profile for the manufacturing sector as a whole is difficult to predict, and need not necessarily represent an advance towards the solution of certain basic problems posed by the industrial development of the Latin American countries. For example, it can hardly be guaranteed that during a cycle of very brisk domestic technological development any significant change will take place in the employment situation in the manufacturing sector.

There is evidence that the adaptations and minor innovations which are incorporated into capital equipment have the same labour-saving bias as is characteristic of the original imported technology; that is, the labour required per unit

of output after a period of adaptation is less than was needed with the original equipment. But employment per unit of output when the remodelled version of the older technology is used generally exceeds what is necessary (also per unit of product) with equipment incorporating the most recently generated technology.

The labour-saving bias of minor innovations produces less effect than would the introduction of new foreign technology. A case in point is described in a study on cotton-spinning mills in Argentina. Three different technological situations are analysed. The first corresponds to spinning mills with capital equipment dating on average from the period 1948-1955. In the second, the same equipment is used, but after the introduction of a series of improvements and adaptations. The third is the case of a plant with 1970-1972 technology. The study shows that for the same volume of output of similar-quality yarn 32% less manpower was employed in the second situation than in the first. If in turn the third situation is compared with the first, the saving of labour amounts to 60%.²⁰

It would seem, however, that more thorough studies must be made on the relations between the results of domestic technological development, the effects of the incorporation of modern technology, and employment.²¹ Carrying out such studies in greater depth does not seem likely to invalidate the general presumption as to a labour-saving bias, but, in our opinion, it needs qualifying. It is presumed that the results of DTD activities imply, in principle, greater absorption of skilled technicians

labour. See J. Fidel, J. Lucángeli, and P. Sheperd, *Perfil y comportamiento tecnológico de la industria del cigarrillo en la Argentina*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1976, chapter V. An analysis of the technological evolution of the Acindar rolling mill for finished steel products (Rosario, Argentina) shows that after it had been installed for twenty years changes in the engineering design were introduced which made it possible to increase capacity by 70%, and to manufacture a more diversified range of products to serve the motor-vehicle industry. See P. Maxwell, "Estrategia tecnológica óptima en un contexto económico difícil. La evolución de la planta siderúrgica de Acindar en Rosario, Argentina". *El Trimestre Económico*, No. 180, Mexico City, October-December 1978. The Mexican firm Furfural y Derivados S.A. developed a process for obtaining furfural (raw material for producing certain types of alcohol), by introducing changes into the process used in Finland and the United States, and thus created a technology which it exports under its own patent. See L. A. Pérez Aceves and J. J. Pérez y Peniche, *Análisis microeconómico de las características del cambio tecnológico y del proceso de innovaciones. El caso de Furfural y Derivados S.A., México*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978, pp. 7-14.

²⁰ See A. Canitrot, J. Fidel, M. Juillerat, and J. Lucángeli, "El empleo en la industria textil argentina. Análisis de comportamiento y de elección tecnológica", *Desarrollo Económico*, vol. XVI, No. 63, Buenos Aires, October-December 1976.

²¹ In this connexion, it is worth while recalling the singular behaviour of the construction industry in Argentina. Between the years 1950 and 1973 its labour productivity showed a slightly declining trend, which implies—in terms of employment—that in this sector in 1973 one unit of final output generated a level of employment slightly higher than it would have done in 1950. Much the same thing happened in the Mexican construction industry between 1950 and 1965. See G. Vitelli, *Cambio tecnológico, estructura de mercado y ocupación en la industria de la construcción argentina*, IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1978, pp. 1-4.

and specialized operatives, and a relative decrease in employment of unskilled workers. What would have to more carefully investigated is the possibility of quantifying the relation between a change in the technological profiles of manufactures and the composition of industrial employment by levels of skill.

With the backing of a study of this type, one would be in a better position to evaluate

the 'impact' of the evolution of technological profiles on employment and to draw conclusions as to the magnitude of these effects. Needless to say, the research implicit in this approach is closely linked with the efforts that are being made in many countries and study centres to work out criteria for the guidance of policies relating to the training of skilled manpower at the various levels.

IV

Transferability of minor innovations

Lastly, all that remains to complete the analysis of the nature of domestic technological development and its main characteristics is to pass in brief review the problems raised by the dissemination of its results.

The transferability and dissemination of the results of innovative activity is a topic of importance in theoretical approaches to technical progress. It is precisely the greater or lesser dissemination of this progress that is linked up with its repercussions on a country's industrial development. If its dissemination were perfect, as is theoretically conceivable, and were to cost nothing, the social yield of innovative efforts would be maximized, and so would their impact on the growth of productivity and on competitive market conditions. But this very seldom happens; the know-how generated by innovative activities does not flow freely between firms and countries and, as will be shown, it is real market and production conditions that obstruct the flow. Dissemination of the results of domestic technological development encounters even greater difficulties, particularly where minor innovations in processes are concerned, although a greater degree of transferability can be expected when such innovations relate to products.

This topic should be studied in the broader framework of technological dissemination, with reference to some of its theoretical aspects. A point to stress from the outset is that technological know-how has the character of a

'public good',²² which means that the design of a production process or of a product can normally be used by an unlimited number of individuals, without this implying that its usefulness is thereby exhausted. From the social standpoint, it is undesirable for new know-how not to be disseminated, since the marginal social cost of its use is, theoretically, equal to zero except for the costs incurred through its adaptation. Consequently, imperfect mobility of know-how would prevent a society as a whole from succeeding in optimizing its economic behaviour.

The transfer of the results of technological activities depends upon the benefits obtained both by the supplier and by the purchaser. The greater the benefit ensured both on the supply side and on the demand side by the dissemination of know-how, the greater will be the mobility that may be expected. Presumably, if the purchaser pays a given price for the know-how in which he is interested he does so because he considers the benefits that he will obtain from applying it to be adequate. Accordingly, the question of transferability of know-how is more closely, linked to the supplier, that is, to the executor of the innovative effort, and to his

²² A pure 'public good' is one whose consumption by an individual does not exclude consumption by others. See P.A. Samuelson, *The Collected Scientific Papers of Paul A. Samuelson*, Vol. II, Cambridge, Massachusetts, MIT Press, 1972, p. 1213.

prospects of benefiting by its transfer. The fact that technological know-how is a public good militates against his chances of reaping the benefits in question.

An adequate system of patents would facilitate dissemination and at the same time would ensure that the entrepreneur responsible for the innovation effort derived some profit from the transfer of the know-how to which it gave rise. The patent system, however, is meaningful only for some innovations. A considerable body of new technological know-how is not patented, in some cases because patenting it would give away valuable information to competitors, and in others because some important innovations are not susceptible of patenting (for example certain sales systems).²³ Basically, therefore, it is difficult for the entrepreneur to secure the benefits implicit in the dissemination of the results of innovative activity, unless he enjoys some degree of monopoly.

The reduction of costs through the betterment of existing processes or the introduction of new ones, and the improvement of the quality of the goods produced or the designing of new products, both enable the entrepreneur to gain advantages in the market in which he is competing, although innovations in products are easier to imitate and therefore the measure of monopoly obtained is short-lived. Hence it may be asserted that the degree of dissemination of product innovations is higher, since the profit deriving from such dissemination is harder to secure. But at all events, whether the entrepreneur makes his innovations in processes and/or in products, he is not selling know-how but products, although the nature of the market is affected by the generation of know-how.²⁴

This is also the commonest way in which domestic technological development is disseminated, i.e., through know-how incorporated in products. But it must be noted that there are a number of restrictions on the local entrepreneur's transfer of know-how, and

therefore on the chances of increased mobility of the results of local innovative activity.

The task of solving the operational problems that arise in a plant, the need to adapt it to changing market or input conditions, the adjustments that have to be introduced in equipment, when some items with new technological contents are brought in as replacements, etc., generate learning curves in the engineering cadres and give rise, as was said before, to improvements and innovations in production processes and in products. But this know-how which emerges out of innovative activity localized in a plant is usually of a very specific character, centering upon each plant's special conditions, and therefore cannot easily be disseminated or transferred to other similar plants.

Even in cases where dissemination of the type of know-how generated in the plants is possible, it would be discouraged by the market structures prevailing in the manufacturing sector. If it is assumed that the bulk of local innovative activity takes place in medium-sized and large enterprises and in markets where oligopolistic competition is very keen the dissemination of a given type of information—in so far as it is specific—would imply renouncing a certain degree of monopoly gained precisely on the basis of the firm's innovative efforts. Thus, the market structure and the degree of concentration in a branch of industry would condition the dissemination of new know-how.

However, the types of know-how which would tend not to be disseminated and, consequently, would remain within the production unit that generated them are those relating to process technologies, since those connected with product technologies can in most cases be imitated or copied by competitors.²⁵

In Latin America there are enterprises which already are or could be potential suppliers of technological know-how. It must be borne in mind, however, that they are engaged in producing goods and/or services; their main activity is production, and as a general rule they

²³ See J.E. Stiglitz, *On the micro-economics of technical progress*, IDB/CEPAL/IDRC/UNDP Programme, Working Paper No. 32, Buenos Aires, 1979, pp. 9-10.

²⁴ *Ibid.*, p. 10.

²⁵ Although product designs may be legally protected, in practice this does not prevent their imitation and the launching of similar products.

are not firms whose purpose is to sell technology. The sale of technological assets calls for a technical team whose job is not only to market them, but also, and above all, to systematize the information and technical know-how developed by the firm. It is necessary to have built up out of the sum total of minor innovations a critical mass of innovations which affords economic justification for the maintenance of such teams, and which enables the enterprise to put out a 'package' of innovations for sale. In other words, the sale of technological assets is subject to the restrictions imposed by economies of scale.

The above-mentioned systematization is more feasible in cases where the production units or the firms concerned possess a 'research and development' department. These enterprises can undertake the relevant studies whereby activities to improve output or to reduce costs, or any of the other forms of DTD described, can be turned to account to provide engineering designs which can be offered on the market, either as designs proper or through technical assistance to other plants. In this last connexion, some successful experiments have been carried out in the establishment of engineering firms on the basis of the experience gathered in adaptation of technology and generation of minor innovations in enterprises in several Latin American countries.²⁶

There are, of course, instances in which very marked mobility of know-how is observable. A case in point is the dissemination of information among the subsidiaries—in different countries—of transnational corporations, where know-how goes to form part of the net wealth of the enterprise as a whole. In this case too the know-how generated is usually highly

specific, in response to the special conditions prevailing in the plants and in the economic and social milieu to which they belong. Although this specificity is an obstacle to dissemination, it must be borne in mind that these are subsidiaries which in the main have similar technical characteristics, just as the general conditions in which they operate are also much alike. This is not enough, however, to explain the high degree of dissemination, since it can be noted as well that factors like those described are common to plants belonging to the same branch of industry in a given country. The other circumstance that furthers an easier flow of know-how between subsidiaries is when they operate in different markets where competition is virtually non-existent; this removes one of the basic problems hindering dissemination among domestic enterprises within a single country.²⁷

Similarly, interesting examples are to be found of transferability of technical know-how among firms in different countries of the region, especially in respect of steel-making and petroleum. A study carried out on scientific and technological co-operation among Latin American countries shows that the interchange and dissemination of technology exists in various forms among State enterprises and private firms. Predominant among these forms are assistance in solving plant operation problems, training of personnel, studies on selection of technology, etc.²⁸ It is a valid assertion, how-

²⁶The Companhia Brasileira de Projetos Industriais (COBRAPI) had its origin in the Companhia Siderúrgica Nacional (CSN), where it started life as the firms's Projects Department in 1941. As the services required spread beyond the province of CSN, COBRAPI was established in 1963. The structure of the new enterprise enabled it to cover all phases of planning—basic conception and feasibility; project engineering—basic project; construction engineering and assembly. See E.M. Ford *et al.*, *Oferta de Serviço de Consultoria de Engenharia no Brasil*, Financiadora de Estudos e Projetos, S.A. (FINEP), Rio de Janeiro, 1977, pp. 109-120; and COBRAPI, *A apresentação do proponente*, São Paulo, 1977.

²⁷While there are innumerable examples of assistance among subsidiaries, particular interest attaches to the installation of two cigarette factories in Bolivia, in view of the similar behaviour of two transnational corporations. Masalín y Celasco and the Compañía Nobleza de Tabacos, Argentinian subsidiaries of Philip Morris Int. and British-American Tobacco Co., respectively, were made responsible not only for setting up the plants but also for supplying modernized equipment, training personnel and supervising the work of putting the plant into operation.

²⁸Mention may be made of the following cases of transfer of know-how among enterprises in the region: the technical assistance given by the Argentinian enterprise Yacimientos Petrolíferos Fiscales (YPF) to the Uruguayan Administración Nacional de Combustibles, Alcohol y Portland (ANCAP) in the conduct of seismological studies for petroleum-prospecting purposes; the training of personnel undertaken by the Ecuadorian State Petroleum enterprise in several firms in the region; and the assistance given by the Chilean Compañía de Acero del Pacífico (CAP) to Acerías Nacionales del Ecuador in the selection of technol-

ever, that the transfer of know-how between the enterprises mentioned is facilitated inasmuch as they do not compete in one and the same market, and also because they are large enterprises, many of which have very active research and development departments. Moreover, the existence of Latin American entrepreneurial associations makes it easy to disseminate information, especially as regards the technical capacity of firms as suppliers or as recipients of technological know-how.

The cases cited constitute only a small sample of an activity in which almost all the Latin American countries are engaged. The inference is that given the existence of conditions favourable to transferability and appropriate settings to facilitate it, more intensive dissemination of domestic technological efforts is possible.

Another way in which know-how is transferred is through the exporting of plant under the turnkey system or through consultant and engineering services. In this connexion the experience of the large Latin American countries, although incipient, has been promising, not

only within the region but also in respect of exports to African and Asian countries. In these economies locally modified and improved technologies are better adapted to labour requirements, inputs, market sizes and product specifications than are the technologies of developed countries.²⁹

The foregoing remarks on the transferability and dissemination of the results of DTD required to give it greater and more effective economic growth potential have focused attention on two main problems: development, at the level of the firm, of research work capable of systematizing and generalizing the know-how which is being generated; and the creation of conditions to make it easier for the innovator-entrepreneur to reap the benefits of this dissemination. These are not two separate problems, but are closely interrelated. They will be analysed in greater depth and possible solutions will be put forward below, when the criteria which should guide policies for fostering this aspect of technical progress are discussed.

V

DTD and economic growth conditions

Up to now we have examined various aspects of DTD which enable us to gain a more complete idea of its nature. Next we shall continue, in a sense, the same type of analysis, but changing the angle of approach. The focal point will now be the economy as a whole, or certain macro-economic variables, instead of the individual plant, as in the first part of the article. On sev-

eral occasions it has been stated that when faced with certain general conditions, not precisely defined, the entrepreneur may react by adopting particular lines of technological behaviour, and in this way the typical forms or patterns of domestic technological development have been individualized. The analysis undertaken below is, to some extent, the reverse of the preceding one; that is, the accent will be placed on characterizing these overall situations and studying their influence on DTD, so as to lead up to a series of reflections on how to strengthen the impact of DTD on technological progress in our countries.

As regards its form and intensity, domestic technological development —no longer viewed as something that emerges from the individual plant, but as a technological activity at

ogy and in the installation and putting into operation of the plant. For a more detailed analysis of the subject, see J. Fidel and J. Lucángeli, *La cooperación científico-tecnológica entre los países latinoamericanos. Su expresión en los sectores de siderurgia, petróleo y petroquímica*, Report presented to UNDP, Buenos Aires, 1977.

²⁹ See J. Katz and E. Ablin, *De la industria incipiente a la exportación de tecnología: la experiencia argentina en la venta internacional de plantas industriales y obras de ingeniería*, *op. cit.*, pp. 21-29.

the level of a branch of industry— cannot be independent of the evolution of the branch in question or, by extension, of that of the sector as a whole. It may be considered that a linkage exists between DTD and the economic performance of a branch of industry, so that the two are interrelated and condition each other. It has already been pointed out, for example, that in case studies in Argentina, Colombia and Peru a close statistical association is found between the level of activity in the field of technological adaptation and generation in a group of industrial plants representative of the manufacturing sector, and the productivity of labour in the same sector. Nevertheless, the relation between DTD and the evolution of the sector and branch of industry concerned is not symmetrical. The overall conditions of the economy and those of the sector to which the branch of industry belongs have an incidence on the level and structure of domestic technological development much more important than its influence on the development of manufactures. In this sense it might be said that both in its structure and in its level of activity DTD is largely a product of the overall conditions prevailing in the economy and of those established by economic policy.

Unquestionably, the level of investment in the industrial sector is a factor of singular importance in characterizing an overall economic situation for the purposes of the analysis attempted here, since many of the activities proper to domestic technological development are operations arising out of the installation of new capital equipment or directed towards replacing its installation by adjustment or remodelling of the existing machinery. Consequently, it is logical to suppose that both economic policy and overall economic conditions affect DTD through the influence which they exert in turn on investment in manufacturing industry. Furthermore, while for the purposes of this analysis investment has been chosen as a principal macroeconomic variable, a very reasonable assumption respecting demand is also postulated. Demand and investment conditions will be similar, in the sense that an increase in the rate of investment is accompanied by expectations of a rise in the level of demand, and *vice versa*.

Let us now see how the different typical forms of DTD are related to investment in equipment, in order to establish the bases for an analysis of the relations between the behaviour of the economy and domestic technological development.

The first typical form —that occurring in consequence of the installation and entry into operation of capital equipment— is clearly a DTD activity complementary to investment. It can therefore be asserted that when the latter macroeconomic variable increases, the tasks of technological adaptation proper to this particular form of DTD will also increase, in a proportion difficult to determine *a priori*.

The second typical form —improvement of the existing equipment by means of local innovative efforts— may be considered as substitute for investment in new equipment, which generally incorporates new technology. If a comparison similar to that drawn in the preceding paragraph were to be made, we should find an inverse relationship. Similarly, the third typical form of DTD —an overall reduction of plant costs by means of modifications of the existing equipment or products— may also be regarded, in most cases, as taking the place of investment, and it will be resorted to with increasing frequency as supply conditions become more competitive.

The fourth form of DTD —shop-floor technical assistance— has no definite relation to investment, although, if it stems mainly from the need to resolve maintenance problems, it may prolong the useful life of equipment and postpone its renewal. It has already been pointed out, however, that this form includes virtually permanent activities which do not depend solely upon the age of the equipment.

The fifth form, linked to the characteristics of the products offered by firms on the market, depends more upon demand conditions than upon investment trends. And lastly, the sixth form —research and development— by the very nature of the entrepreneurial conduct that determines it, will benefit in so far as an economic climate exists which is also favourable to a brisk rate of investment and of economic expansion.

Although the foregoing description of relations between forms of DTD and the invest-

ment process is somewhat schematic, and does not embrace the indirect relations that may be detected, it does make it possible to outline a pattern of technological behaviour on the part of the firm which, in turn, will determine the level and structure of DTD.

The variables that influence the behaviour in question are closely linked to the entrepreneur's investment decision. Thus, the profitability of the new equipment, the factors of uncertainty that affect the rate of return on investment, the relation between the price of capital goods and the costs of skilled and specialized manpower and other similar items, taken together in the economic estimate, will determine the technological conduct of the entrepreneur. This will likewise be affected by the extension of the technological frontier, that is, the speed with which new innovations appear. Where this process stagnates or advances at a crawl, very hard work will be put in on adapting and improving existing equipment; and it may therefore be supposed that if the progress of technology is highly dynamic, and particularly when the qualitative changes introduced by the innovation represent very marked variations with respect to the preceding technology, activities relating to the installation and entry into operation of new equipment will develop vigorously.

Let us now revert to the discussion of relations between DTD and economic growth conditions proposed at the beginning of the present chapter. For this purpose we shall consider two kinds of situation, to which the analysis will refer. In the first place, we shall postulate a developing country with several decades of experience in industrial production, which steadily keeps up a high rate of economic growth and investment, implying in addition a rapid rate of incorporation of capital equipment with technologies of increasingly recent date. In these conditions demand too will grow at a good speed. Such a situation, in turn, sustains the medium- and long-term expectations of entrepreneurs with respect to the expansion of the economy.

Secondly, we shall assume an opposite situation: the case of a country with a slow growth rate, balance-of-payments difficulties, a low rate of investment, a sectorial composition

varying greatly through time, and pessimistic entrepreneurial expectations as regards demand and overall economic conditions in the medium and long run, although, as in the preceding case, it is assumed to have lengthy experience in industrial production.

In the first situation all the typical forms of DTD may be expected to flourish. Predominant, however, will be the generation of know-how linked to the installation and entry into operation of new equipment, and the work of adaptation of existing equipment may possibly show a loss of relative importance. Impetus will be given to tasks connected with the reduction of costs and differentiation of products in so far as market competition becomes keener, although this reduction and differentiation will be achieved mainly by changing the capital equipment, when the time comes to do so, and not by adapting it. The stock of know-how and the skilled labour force built up through experience in industrial production will constitute highly important factors in the selection of the technologies to be incorporated and the design of new plants. Similarly, domestic innovative activity will gradually produce adaptations of the technologies introduced and evolve learning curves in line with the new technological profile which results from the dynamics of investment.

In the second situation, in order to maintain or expand production firms will generally need to undertake intensive reconditioning of capital equipment and to postpone the introduction of machinery incorporating more advanced technologies, since in conditions such as those prevailing in the economy the expansion of production capacities is discouraged, and the relation between prices of equipment and costs of skilled labour will be favourable to labour-intensive practices. Innovative activities aimed at reducing costs, as well as those originating in shop-floor technical assistance, will occupy a prominent place in the structure of DTD, given that, in face of the restrictions on investment, entrepreneurs will try to prolong the useful life of the existing equipment to the maximum. Undoubtedly, the forms taken by DTD in this situation show declining yields, and if they last for a long time will gradually shape a technological profile which will less

and less resemble that determined by the newest innovations. It may be said that in a case like this the technical progress of the manufacturing sector is based mainly on the know-how generated by experience and by the degree of maturity which the firms in the sector have attained, and that its dynamism will suffer from the failure to incorporate new technologies in reasonable amounts. Over the long term, this manifestation of DTD, as a substitute for the introduction of major innovations, may possibly affect the growth capacity of the sector and may have other adverse consequences such as increasingly high manufacturing costs in relation to those of a sector with a more modern technological profile. In such circumstances DTD palliates economic trends which give preference to what is known as passive investment, as against other trends in favour of active investment, i.e., those which shorten the deadlines for renewal of equipment and thus accelerate the introduction into the economic system of increases in productivity and improvements in the quality of products which are made possible by recent innovations.³⁰

The analysis made so far is based on an

implicit assumption which it is now time to state explicitly. It is assumed that the cost-benefit ratio of the new technology which may be incorporated into production and the cost-benefit ratio of local adaptive and innovative activities fall within a range of variability that makes them comparable, and the predominance of one or the other ratio will depend upon the prices of capital and of labour, upon uncertainty as to the future of economic growth, etc., as already pointed out. But it may happen that the technology available possesses characteristics very different from those of the equipment already installed, i.e., that major innovations are involved which give rise to a marked extension of the technological frontier, as noted before, so that this new technology can offer standards of quality and productivity far excelling those attainable with the technology it was intended to remould. This additional factor would affect the influence exerted by macroeconomic variables on the structure of DTD, as explained in the foregoing paragraphs, inducing entrepreneurs to follow the course of active investment in the branch of industry concerned, even in the second of the situations described.

VI

Conditions for the promotion of R&D activities

Throughout the analysis presented in the preceding chapter no direct reference has been made to the sixth typical form of DTD, that is, to explicit research and development (R&D) activities. This form, which, as was said before, is the least frequent in the manufacturing sector in Latin America, is closely linked, again like the others, with the overall development conditions the economy. High rates of growth and investment and expanding demand may be said to constitute essential requisites for this typical form of DTD to do well.

Here we will examine this form of DTD more exhaustively, since among its characteristics elements are to be found which would make for a change in the structure of DTD and which open up possibilities for it to bring about more radical transformations of the technological profile of manufactures than are effected by means of local adaptive activities.

It has already been pointed out that generally speaking the technical progress generated by the first five forms of DTD referred to results in what have been described as minor innovations, and stems from entrepreneurial behaviour which represents a reaction to macroeconomic incentives, to market factors or to specific production problems arising in factories. Research and development activities, however, imply a technological behaviour on the part of

³⁰ For an analysis of the effects of passive investment as the prevailing line of conduct in the United Kingdom and its repercussions on productivity and competition in world markets, see A. Lanfalussy, *The United Kingdom and the Six*, London, Macmillan and Co. Ltd., 1963.

firms which depends not merely upon responses to these incentives and problems, but rather upon a readiness to take risks in order to reap the future benefits of scientific inquiry and research. It has also been shown that this form of DTD permits the generalization of the know-how emerging from the praxis of production and from activities in the other typical forms, and facilitates its more mobile dissemination. All this leads us to assert that if the aim is to strengthen DTD and raise its qualitative level, to increase its influence on the evolution of the technological profile of manufactures, and even to achieve more important innovations than it has been generating in the industrial sectors of the Latin American countries, the work of research and development will need to acquire greater relative importance within DTD activities as a whole.

One of the basic objectives of technological policy must therefore directly relate to the creation of favourable conditions for the expansion of this typical form of DTD among firms in the manufacturing sector.

Many Latin American countries have instituted incentives to encourage firms to spend on research and development activities.³¹ Promotion of this kind applies to specific projects which have to fulfil given conditions in order to enjoy tax exemptions or other subsidies. The extent to which enterprises have availed themselves of these possibilities differs, depending, *inter alia*, upon their size. Save in exceptional cases, however, what has been facilitated by the incentives offered is not the creation of permanent and dynamic R&D machinery, but the more or less sporadic establishment of technical groups to look for solutions to specific problems; generally speaking, these attempts at promotion have not taken into account the complexity of this form of domestic technological development. Activities relating to the creation and dissemination of technical

know-how are conditioned by three main factors: the indivisibility of expenditure on R&D; the high degree of uncertainty which characterizes the process of generating know-how; and the doubtful possibility of reaping the benefits deriving from its results.

The indivisibility of expenditure on R&D means that the firm must possess a body of resources, skilled manpower and equipment which cannot drop below a certain level if experimental work is to be permanent. In other words, the firm must incorporate a mechanism which implies an additional fixed cost.

Uncertainty is inevitable, since it is part of the nature of the process of generating know-how, owing to the element of chance in the obtaining of results and the impossibility of knowing *a priori* the value of the product to be obtained. However, the longer the time required to execute R&D projects, the greater will be the risks which this uncertainty implies, and which also depend on the development conditions of the economy.

The problem of appropriability was analysed when the subject of dissemination was discussed in chapter IV, where the fact that technological know-how is a public good was shown to militate against the innovator entrepreneur's chances of reaping the benefit of the results obtained.

In a situation in which the economy is expanding steadily entrepreneurs will be readier to introduce an additional fixed cost for the purpose of creating permanent R&D machinery, and at the same time the uncertainty that affects them is largely reduced to that inherent in the experimental process proper. Technological policy ought to stop promoting sporadic action in this direction, and instead establish incentives which will lighten the financial burden which firms must assume in order to meet the requirements posed by the minimum volume of resources needed for such machinery. Otherwise, only large private enterprises—in particular subsidiaries of transnational corporations—and public enterprises would be able to undertake R&D activities, just as is the case at present. Medium-sized enterprises, unless they are exceptionally dynamic, encounter serious difficulties in tackling this form of DTD.

³¹ For a compilation of incentives of this type in most of the Latin American countries, see Convenio Instituto para la Integración de América Latina (INTAL)—IDB/CEPAL/IDRC/UNDP Programme, *El marco jurídico de la innovación tecnológica en América Latina* (Legislación comparada), IDB/CEPAL/IDRC/UNDP Programme, Buenos Aires, 1976.

In Latin America there are several examples of firms that have set up this permanent R&D machinery. It would be extremely useful to ascertain in detail, on the basis of these cases, the branches of industry and the types of plant in respect of which this form of DTD is undertaken, and the factors that have fostered or hindered the evolution of local technological activities. The analysis of such elements as plant size, ownership of the firm (national or foreign, public or private), types of products and characteristics of demand, the extension of the frontier of technology, the degree of oligopoly, tariff protection, and specific economic policy would afford guidelines which technological policy could follow in order to expand this typical form of DTD.

In its approach to the reinforcement of DTD, the State should not merely make provision for subsidies or other similar ways of reducing the risk incurred by firms. It should also take direct action to facilitate R&D activities throughout the whole of the industrial sector, with special consideration for the situations arising in small medium-sized factories. In many Latin American countries there are public agencies which assign an important place among their duties to promotional activities to improve the technological level of industry, and which undertake research in the field of process and product technologies.

Systematic study of the *modus operandi* of these agencies, of their priority criteria, of the resources at their disposal, of the results obtained and of their influence on technological development in branches of industry would shed light on an important aspect of the technological policies applied by countries and would facilitate their reformulation with a view to strengthening DTD. Such a study becomes still more necessary when the aim is to raise the technological level of medium-sized enterprises, which are hardly capable, despite sub-

sidies, of undertaking permanent R&D activities.

Taking as a whole the reflections set forth in this chapter with the object of clarifying certain problems that face economic policy for the promotion of R&D activities, we come up against a number of factors such as uncertainty, indivisibility of expenditure and the difficulty of reaping the benefit of results, to which must be added other difficulties stemming from the degree of oligopoly existing in our economies (especially the concentration of the industrial sector) and from the preponderance of transnational corporations, etc., which prevent market forces from bringing about an appropriate allocation of resources to R&D. Technological policy must therefore make provision for measures to counteract the disadvantages that the price system cannot overcome. Broadly speaking, it would seem logical to place the strengthening of DTD and the expansion of research and development activities in a conceptual framework similar to that used for dealing with incipient industry.

No reference is made here to the other forms of DTD or to the policies which might serve to promote them throughout the whole of the manufacturing sector. But the absence of explicit reference does not mean that encouragement of the activities concerned is considered needless. Underlying the whole question is the assumption that, in so far as enterprises set up permanent R&D mechanisms, all the forms taken by domestic technological development will benefit. Such mechanisms, closely linked to the plants and connected with the problems arising out of the praxis of production, are not only sustained, as mentioned above, by the results of the first five typical forms, but will also, by a logical process of feedback, have beneficial effects on the quality of the other activities, broadening their potentialities and raising the technical level at which they are carried out.

Economic development and theories of value

*Armando Di Filippo**

If economics is to supply more reliable interpretations of development in concrete historical cases it is essential that it should break through the narrow limits within which it has been confined by theories of value based on the assumption of general equilibrium. The conception of value as power proposed by the author is aimed specifically at lessening the rigidity of the categories of economic analysis so that they can easily incorporate contributions from other social sciences.

The article begins with a critical review of the liberal neo-classical and Marxist theories of value and distribution, which, in the author's view, offer a distorted picture of the economic process and fail to throw proper light on the process of formation of relative prices or the dynamic genesis of the surplus in the development of capitalist societies. On the basis of this critique he sketches the outlines of an alternative theory, in which economic value is not the expression of magnitudes of social labour, or of 'sovereign' consumer preferences: it simply expresses power. And the specifically economic form of power is 'purchasing power', which finds its most general expression with the advent of the capitalist social order.

On the basis of the concept of purchasing power the author considers other concepts, such as those of economic value, income, capital, surplus and so on. In the final sections his interest focuses on the concept of the surplus in its different forms—the global surplus, the distribution surplus and the entrepreneurial surplus—and, in the light of recent propositions set forth by Prebisch, he raises the question of the way in which it relates to crucial aspects of economic development, such as the social forms of appropriation of the fruits of technical progress.

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I

General outline

The central argument of this article is that the capitalist economic process lacks self-regulating forces which would guide it towards positions of stable equilibrium accompanied by a socially 'open' distribution of the fruits of development. The corollary of this basic assertion is that it is the power positions and relations arising from the social structure which, in the final analysis, determine the form taken by the process of capitalist development.

This inability of the system to achieve positions of equilibrium in circulation, and equity in distribution, has already been pointed out by those who view the capitalist economic process as being subject to circular and cumulative tendencies which accentuate any existing asymmetry of power in the social process.¹

In the same way, the idea that the market mechanism does no more than express in the economic sphere the asymmetries of power which stem from the social structure has been implicit in many concrete diagnoses and comprehensive interpretations drawn up by the structuralist economic school in Latin America, and has tended to be stated explicitly and more emphatically in some more recent contributions.²

¹The logical and ideological significance of the concept of stable general equilibrium in economic theory was subjected to a lucid critique by Gunnar Myrdal in *Economic Theory and Under-developed Regions* (London, Gerald Duckworth, 1957).

²"As a first approximation to reality, we would consider peripheral development as consisting in penetration by the technology of the centres, accompanied by changes in the structure of society. This changing structure in turn affects the kinds of technology introduced and the intensiveness and extensiveness with which they are adopted.

"The structural transformation is varied and complex. The changes which occur in the income strata as technological penetration brings about a rise in productivity are of great importance for our analysis.

"The strata change according to the rate at which productivity increases and the way in which its effects are distributed. But as this happens, changes also take place in the social, political and organized labour power of the different strata and, consequently, in the relations between them.

"Now, the power relations which derive from the structure of society ultimately determine the distribution of income, and the pattern of this distribution conditions the penetration of technology and the ensuing rise in productivity." Raúl Prebisch, "A critique of peripheral capitalism", *CEPAL Review*, No. 1 (first half of 1976), p. 21.

In practical terms, this particular view of the capitalist process suggests the need for appropriate machinery for control by society capable of subordinating the different forms of power to the broader aims of social development and human advancement. The Universal Declaration of Human Rights contains perhaps the most significant succinct expression of those aims.

Curiously, however, the prevailing economic theories do not contain categories of analysis whereby this outlook on the world can be fully reflected. The two schools of thought with greatest present influence have developed a conception of the market and of economic value which is inadequate to describe how the power positions which stem from the social structure are specifically reflected in economic terms.

For very different reasons, based on their contrary views of the capitalist social order,³ both Marxian and neo-classical liberal economic theory have assumed that the economic system possesses self-regulating mechanisms which guide it to positions of general equilibrium. Each theory, in its discussion of economic value, attempts to explain the structure of relative prices which should prevail in conditions of general equilibrium in fully competitive markets.

Marx developed a view of the economic process which is restricted to highlighting the 'fundamental contradiction' of the system, expressed in the irreducible class antagonism between the capitalists who own the means of production and the dispossessed workers who have only their own labour power. The labour theory of value states that value is created through the application of living labour in the production sphere. In the sphere of circulation, i.e., that of the markets, no-one can extract more value than that which is incorporated in his product, and the logical foundations of this law of value make it necessary to proceed from conditions of general equilibrium. If the operation of the market actually corresponded to the the-

ory and law of value formulated by Marx, the only asymmetry of power which would make it possible to appropriate a surplus would be that arising from the irreducible antagonism between capitalists and wage earners. In this way Marx succeeds in giving expression, in his fundamental economic categories, to the dialectical dichotomy he perceives in the dynamics of the social process. The market—the context in which private owners negotiate—thus constitutes a kind of 'epiphenomenon' or projection of capitalism, and ought to disappear once this social order, which is regarded as intrinsically unjust, is left behind.

The neo-classical version of the liberal theory is restricted to translating into economic terms the basic idea that, in seeking their own personal advantage, men will behave in such a way that by virtue of natural tendencies which are latent within the social system itself, they can achieve stable positions of general equilibrium and equity. The marginal utility theory of value, formulated in circumstances of perfect competition, meticulously eliminates all the heterogeneities or asymmetries which might produce different positions of power. In circumstances of general equilibrium, each consumer obtains maximum utility and each factor of production receives remuneration which is equivalent to the marginal value of its contribution to production. Consequently, these two schools of thought formulate their conceptions of the workings of the market and economic value in order to place particular emphasis on their underlying views of the nature and operation of the capitalist social order.

According to Marx, the market sanctions and reproduces a fundamental contradiction, of which the market itself is an important expression. The recommended course of action is to exacerbate this fundamental contradiction and eliminate by revolutionary means not only the capitalist social order, but also the market mechanism, which is the expression of that order in the economic sphere.

The neo-classical liberals, for their part, draw a diametrically opposite practical conclusion. The market sanctions and reproduces consensus, integration, equilibrium, harmony and other virtues inherent in the very nature of the social process. The practical conclusion,

³On the subject of the theories of integration and conflict, see Jorge Graciarena, *Poder y Clases Sociales en el Desarrollo de América Latina* (Buenos Aires, Paidós, 1966), appendix I.

accordingly, is that this beneficent process should be interfered with a little as possible, and that the fundamental role in the allocation of resources should be left to the market.

In the one case, when the trumpets of the dialectical apocalypse sound the system will collapse, and the market mechanism will disappear with it. In the meantime further analysis of its operation is pointless, since the theory of value furnishes us with the basic knowledge required.

In the other case, the market does no more than express the virtues of a social order which is 'naturally' fair and progressive. Any interference with its inherent laws should therefore be eliminated.

Fundamentally, both views of the role of the market are distorted because they reflect two equally extreme approaches to the operation of the social system, and, as we shall see below in greater detail, each theory demands—though for very different reasons—that the concept of general equilibrium should be placed at the centre of its field of analysis.

There is another point of convergence between the two views: their scepticism regarding the viability and desirability of efforts to devise machinery whereby society can control the different forms of power which are wielded in the social structure. In the first case, the scepticism is based on the inexorable need for a *prior* radical transformation of the system, while in the second case the scepticism reflects faith in its purely spontaneous action, which should not be tampered with.

Let us now examine more precisely how these views of the world 'infiltrate' into economic theory via its basic categories of analysis.

1. Marx and his labour theory of value⁴

The entire conception of history which presides over Marx's work gives a special place to the internally antagonistic dynamism which

governs the structuring of social classes, and the way in which this conflictive process establishes relations of mutual causality with the rate and form of development of the productive forces.

His acute interpretations of the economic process were inevitably coloured by his 'pre-analytic vision', which included among its features the dialectically antagonistic nature of capitalist development, and the inexorable revolutionary advance towards a new social order, initially under the dictatorship of the proletariat.

His economic theory had to include in its basic analytical categories this central struggle between capitalists and wage earners and, more generally, between the owners of the means of production and the dispossessed workers.

The working class, which for Marx was the victim of an *intrinsically* unjust system, was in his eyes subjected to social relations which involved exploitation and which could only be abolished through a revolutionary victory over the capitalist social order.

The overwhelming force of Marx's message lay in the fact that he succeeded in translating this view into the central categories of his theory. In the economic sphere, his labour theory of value constitutes the *analytical expression* of this view of the world.

Marx's theory of value—with its 'law' of the exchange of equivalents—fulfils at least three basic functions designed to make his revolutionary message clear. Firstly, it is the basis for his theory of surplus value as the expression of a phenomenon of exploitation. Secondly, it enables him to eliminate from his field of analysis any other asymmetry of power which

cial implications which go far beyond his conception of the capitalist economic process. The present article contains a critical analysis of his theory of value as a scientific hypothesis designed to explain the process of formation of relative prices and the genesis of the capitalist surplus. Hence the need for critical examination of the 'law of value' with its claim to be a norm regulating market circulation in a 'pure type' of capitalist system. This demarcation for the purposes of analysis implies no underestimation either of the value which may *ethically* be ascribed to social labour, or of its importance in the historical transformation of human society.

⁴Strictly speaking, for Marx commodities have a value in an 'absolute' sense expressed in terms of the social labour time they contain. Because it is purely a definition, this proposition cannot be disproved empirically, and it is profoundly rooted in Marx's view of the world. The concept of social labour in Marx has philosophical, ethical and so-

might distract attention from the above-mentioned fundamental antagonism expressed in the form of a dichotomy. Thirdly, it highlights the common class interests both among workers and among 'capitalists', and minimizes the asymmetrical power positions which may conceivably arise within their respective class positions. This means of focusing his analysis is not a 'deliberate tactic' designed to distort or simplify the power struggles in a capitalist society, but a natural result of his view of the world, and of his desire to highlight analytically what for him was the *fundamental contradiction* of the capitalist social order.

Since we do not subscribe to the dialectical inevitability of the total and drastic replacement of the capitalist social order and all the institutions associated with it, it is perhaps desirable to broaden the field of observation in order to throw light on those aspects of the social structure which remain unclear in Marx's analysis. Let us then, analyse the three features mentioned above.

In the first place, his theory of value constitutes the foundation of his theory of surplus value as the expression—in terms of economic value—of the phenomenon of exploitation. For Marx, only living labour *creates* value; by means of living labour the worker creates a new value and *transfers* to the commodity the value contained in the means of production he uses. Although there is no explicit formulation on an ethical level, surplus value is ultimately viewed as the expropriation of the unpaid labour of others. This asymmetry of power appears not in the market, where the commodity of 'labour power' is remunerated in accordance with the law of value, but in the *use* of this labour power, which makes possible the process of creating new value. The capitalist uses the labour power whose temporary services he has legitimately acquired, and appropriates the fruits of that use. This appropriation is legitimated by the institution of private ownership of the means of production, of the services of the labour force and of the products created by these human and material means of production. In this way Marx performs the feat of reconciling the phenomenon of exploitation with the application of the exchange of equivalents in the sphere of the market.

In the second place, this feat enables him to exclude from his field of analysis any other asymmetry of power which might distract attention from the fundamental antagonism expressed in the form of a dichotomy. *This is the function of the law of value.* If in conditions of general equilibrium the exchange of equivalents must necessarily obtain in the market, then the *only* asymmetry of power which need concern us in explaining surplus value—the expression of the surplus in economic value—is that which becomes crystallized in the exploitation of the labour force. This argument places the owners of the means of production as a group on one side of the fence, and the dispossessed workers on the other.⁵

This brings us to the third point: that the theory of value is formulated—whether deliberately or not—in such a way as to highlight the *common* interests of the owners of capital, on the one hand, and those of the working class, on the other.

The theory speaks of *abstract* and *unskilled* labour, performed with an *average* degree of intensity and in *average* technical conditions corresponding to a *specific period*. The concept of abstract labour is *independent* of the specific skills of each worker which effect the use value of the products, and relates only to a purely quantitative expenditure of *time* on *unskilled* labour. One of the weakest theoretical points in Marx's reasoning is his subsequent distinction between 'skilled' and 'unskilled' labour.

Marx explicitly recognizes that skilled labour is the product of labour power which *contains* a higher exchange value—it is more 'expensive' in terms of the social labour time required to produce it—and generates more 'valuable' labour per unit of time.

In drawing this distinction Marx abandoned the *time* spent on unskilled labour as the only unit of measurement and returned to the

⁵It should be reiterated that this manner of theorizing is designed to distil the purest expression of the movements and processes which are characteristic of a capitalist form of production. However, this high level of abstraction—legitimate in methodological terms—is not always understood by his more enthusiastic readers, who seek to apply its categories uncritically to historically more complex realities.

qualitative characteristics of the labour expended in that time. Since there are innumerable 'degrees of complexity' of labour, the calculation is ultimately completed in a *practical* manner, using the differences in wages which originate from the concrete dynamics of the labour power markets.

Marx recognizes this 'problematical' point, and forms his concept of an industrial reserve army, whereby the introduction of technical progress which economizes on labour power makes it possible to counter the greater trade union power which stems from a real or artificial shortage of labour power, so that the prices and the values of labour power tend to coincide. In this way the 'value' of labour power depends not only on the time required to reproduce it, but also on concrete market considerations linked to technical or social positions and relations which confer power. These relations and positions have to do with the distribution of technical progress in the production sphere and the distribution of wage incomes in the sphere of circulation.

The uneven distribution of technical progress, for example, is particularly severe in the societies of the periphery, giving rise to a situation of technological heterogeneity which contradicts the assumption of *average technical conditions* required for the operation of the 'law' of value.

It must therefore be concluded that the value of labour power cannot be calculated in terms of time spent on abstract labour, but must be calculated in concrete monetary units. Nevertheless, since it is essential to know the value of labour power and the value of the means of production it uses in order to calculate the value of *any other commodity*, these difficulties vitiate Marx's entire theory of value.

We may therefore conclude that the exchange value of all commodities depends on the *initial* distribution of technical progress and monetary income, and can be expressed only in terms of money.

The socialist planners accept on a *practical* level what they would not be prepared to accept in theory. Bettelheim, for example, has the following to say concerning the use of money in the centrally planned economies. Al-

though the quotation is rather long, it is worth reproducing in full.

"In a planned economy based on collective ownership of the means of production, the work performed by each person is directly social work. Money, therefore, no longer plays the role that it plays in a private-property economy of showing to what extent a given kind of production is socially useful.

"Under these conditions, one may ask oneself why it is necessary to carry out economic calculation in terms of money, and why it is not possible to make this calculation directly in hours of labour, all of these being socially useful.

"This question has given rise to numerous discussions, especially among Soviet economists. It emerges from these discussions that what makes monetary calculation indispensable in the first stages of development of planned economy is the non-uniform nature of the labour expended. As Ostrovityanov says: "This non-uniformity results in one hour of one worker's labour not being equal to one hour of another's. It is thus that the simple calculation of social labour, directly in units of production or of labour time, is not enough, and that it is essential to retain reckoning in money, for it resolves the different aspects of social labour, non-uniform in character, in terms of a single, abstract labour'.

"The non-uniformity of labour shows itself either in the form of differences between skilled and unskilled labour, between mental and physical labour, or in the form of differences in productivity resulting from the *different technical conditions* (Bettelheim's underlining) under which one and the same type of labour can be expended (diversity of equipment between different enterprises in one and the same branch of production)."⁶

Thus Bettelheim makes it unnecessary for us to raise the question of the heterogeneity of the production structure and the independent importance which stems from the distribution of technical progress (expressed in the form of the instruments used in production and in

⁶Charles Bettelheim, *Studies in the Theory of Planning* (Bombay, Asia Publishing House, 1959), pp. 79-80.

workers' skills) and of money incomes in determining the structure of relative unit costs and prices.

However, in that case it is necessary to ask: if differences in workers' skills and technical progress cannot be expressed in the form of hours of work, what criteria are used to make the calculation in money terms?

It is obvious that in the socialist countries too there is a distribution of monetary income and technical progress—both in the form of tools and in the form of workers' skills—which corresponds to the power positions and relations characteristic of those socio-political systems. Consequently, money is used because it represents the only objectification and all-embracing measure of the general purchasing power expressed in the markets for labour power and consumer goods. The existence of these *markets*—for that is what they are in strict terms—is essential for the functioning of the socialist economies.

Technological heterogeneities *between branches of production* also introduce difficulties in the law of value. Marx develops his analysis of value within a context very similar to that which a neo-classicist of the marginal utility school would term perfect competition. In particular, he assumes a tendency for the rate of profit to become uniform, which implies technical and economic conditions that permit appropriate transfers of capital, and of the human and material resources mobilized by capital, from activities where rates of profit are lower to those where they are higher.

Here Marx faces a theoretical difficulty to some extent related to the phenomenon of technological heterogeneity discussed by Bettelheim in the above quotation. Once the average value of labour power and the institutionally sanctioned length of the working day have been established, the average rate of surplus value is also determined for the whole economic system.

Now, since there is no reason for the organic composition of capital to be the same in all the branches of production, whereas on the above assumptions the rate of surplus value must necessarily be the same, these conditions would seem to be incompatible with the equalization of the average rate of profit, or, alterna-

tively, with the application of the law of value. Marx endeavours to overcome this difficulty by recourse to the concept of 'production prices'. These prices of goods are established in such a way that the share of each owner of capital in the total surplus value produced as a result of industrial activity as a whole is proportional not to the value of his variable capital, but to the value of his total capital. To put it more clearly, the overall average rate of profit is calculated, and then the total surplus value is 'distributed', allocating an equal share to each capitalist regardless of the organic composition of his capital (the ratio between the value of constant capital and the value of variable capital).

Given a certain rate of surplus value which is the same for all branches, the rate of profit calculated in values will be lower in those branches where the organic composition of capital is higher. Consequently, the equalization of rates of profit implies a transfer of surplus value from the sectors with a lower organic composition to those which use a proportionately greater value of constant capital.

This solution to the problem adopted by Marx involves a violation of the law of value, and is incompatible with the equilibrium—in terms of values—of his models of reproduction. Other writers, using more complicated algebraic methods,⁷ have proposed solutions designed to ensure logical consistency between the law of value and the application of 'production prices'. A warning is necessary, however, that these solutions generally appear to be based on a *static* approach implicit in the solution of any system of *simultaneous* equations.

In addition to this methodological aspect, however, the general economic significance of this difficulty must be considered. Once the rate of surplus value has been determined for the entire economic system, it will be the technically more advanced branches which—in value terms—record the lowest rates of profit. In order to achieve the overall average rate of profit, they must sell at 'production prices' which involve the appropriation of a proportion

⁷For a simple and concise exposition of this subject, see Paul Sweezy, *The Theory of Capitalist Development* (New York, 1942), chapter VII.

of the 'external' surplus value. Hence the introduction of technical progress and the raising of the productivity of human labour—which are associated with a rise in the organic composition of capital—has the result that the technically more advanced firms must receive a kind of 'subsidy' from the technically more backward firms, which transfer to them part of their surplus value. The least that can be said of this process is that it is enveloped in a kind of aura of unreality.

In the final analysis, the cause of this lack of realism must be sought in the supposedly open appropriation of the benefits of the increased productivity of *living* labour. An increase in the organic composition of capital leads to a rise in the productivity of living labour: more units of output per man-hour. This decline in the share of living labour in each commodity must be transferred to the unit cost of each good, which in terms of living labour will also fall. However, in that case why economize on living labour by investing in machinery if the higher productivity must be transferred through a drop in prices to the other consumers? The entrepreneur must bear the increased costs of a higher organic composition of capital, yet cannot enjoy its benefits.⁸ One of the principal purposes of this article is precisely to demonstrate that in practice there is no open appropriation of the benefits of technical progress, and that therefore the law of value is not fulfilled either in a 'direct' manner or in a 'transformed' manner through production prices. An attempt will also be made, following a recent argument put forward by Prebisch, to set out the theoretical reasons why the partially or totally closed appropriation of the benefits of increased productivity is *inherent* in the very logic of capitalist economic development.⁹

⁸Marx obliquely recognizes the existence of an extraordinary surplus value enjoyed by the innovating entrepreneur until such time as the technical advance introduced spreads throughout the branch. However, this surplus value, the result of the difference between the 'individual' and the 'social' value of the commodity, is a phenomenon of disequilibrium that has nothing to do with the stable sources from which, according to Marx, the rise in the rate of surplus value derives.

⁹See sections V and VI below.

2. *The neo-classicists and their marginal utility theory of value*

In order to understand the neo-classical concept of equilibrium, it is necessary to take as a starting point the marginal utility theory of value, according to which the relative prices of consumer goods are proportional to marginal preferences with respect to those goods.

It is also assumed that these preferences make it possible for each consumer to achieve maximum utility, satisfaction or welfare; expressed in different terms, this means that consumers prefer to buy the goods which provide them with greatest utility or satisfaction, and select their purchases with the aim of maximizing such satisfaction.

It is assumed that each consumer is familiar with the goods which are offered in the market and draws up his scale of preferences independently of his monetary income and the relative prices of the different goods. If this were not the case, any change in his monetary income or in relative prices would alter his scale of preferences. In other words, whatever his *specific* income in money terms, and whatever the specific relationship between the relative prices of the commodities, each consumer has defined an exhaustive set of preferences for any level of income and any relative price structure. In the neo-classical jargon, each consumer defines *his own* indifference map independently of his monetary income and the structure of relative prices of goods.

Hicks says on this point that "the objects bought and sold need not be consumers' goods, or they need not all be consumers' goods; the necessary condition is only that they should be objects of desire, which can be bought and sold, and which can be arranged in an order of preference (an indifference system) *which is itself independent of prices*" (Hicks's underlining).¹⁰

In other words, the consumer (or, more generally, the purchaser) has a scale of preferences which is sufficiently extensive to indicate what quantity of each good he wishes to purchase for each possible price. However, a

¹⁰J. R. Hicks, *Value and capital*, 2nd ed. (Oxford, OUP, 1946), p. 55.

distinction must be made between preference and satisfaction. If a consumer's monetary income is very low, the quantities that he prefers to buy at each price are not those which leave him satisfied, but those which, on the basis of his structure of preferences, correspond to his overall purchasing power. To put it briefly, each consumer's demand schedule indicates preferences backed by purchasing power. This consumer is 'in equilibrium' with respect to each good if *for a given relative price* the quantities he *wishes* to buy are the same as those which he actually can buy.¹¹

If we assume that the individual demand and supply schedules for this good can be aggregated, the equilibrium price of each good in the market will be the price at which the quantities that all purchasers wish to purchase are the same as the quantities that all the suppliers wish to sell.

To put it more briefly, market equilibrium is achieved when the quantities sought are equal to the quantities realized with respect to a given price.

It should be noted, however, that general equilibrium in all consumer goods markets can be perfectly compatible with a situation in which a high percentage of the population is literally dying of starvation. For these weak, starving consumers too one could predicate an 'equilibrium' whereby the quantities which—bearing in mind their limited budgets—they 'wish' to buy are the same as those which the suppliers wish to sell.

Obviously, a preference backed by purchasing power is not the same thing as a preference *tout court*. A purchaser who completely lacks purchasing power is not a purchaser, but a beggar.

Hence, an economically viable preference presupposes purchasing power. And standing behind this apparently psychological phenomenon of preferences, there is a social phenomenon of power (or impotence) which is not at all psychological.

If a poor man is given only sufficient money to feed himself at a minimum level of biological subsistence, the neo-classical economist will find that the poor man has 'preferred', *at that price*, to acquire a certain quantity of food. *If on the basis of their money incomes* all purchasers of food wish to purchase exactly the quantity that suppliers wish to supply in the market at that price, our poor man will be informed that he is 'in equilibrium'.

In short, the neo-classical concept of equilibrium considers the distribution of personal income as an exogenous and constant datum, and ignores the *overall* levels of satisfaction or welfare which stem from that distribution for each individual. *The fact that, within his budgetary limitations, each purchaser seeks maximum utility according to his scale of preferences does not mean that he will feel satisfied, whatever the meaning that may be attached to that expression.* The point of interest for this school of theory is that equilibrium is determined, in the sense that the quantities and prices which compose it are unequivocally fixed, as a consequence of the fact that, on the basis of his scale of preferences, each purchaser seeks maximum utility compatible with his budget. The fact that this maximum may for him represent starvation is a distributive aspect which the theory of demand does not take into consideration.

This in no way means that neo-classical economics lacks a distribution theory. Such a theory relates to the remuneration paid for services rendered by the owners of the factors of production. It is assumed that the remuneration paid to each factor of production—strictly speaking, to its owner—is equivalent to the value of the marginal product stemming from the participation of the factor.

Accordingly, remuneration paid to the owners of the factors of production—in other words, the functional distribution of income—depends on, and is equivalent to, the value of the marginal product derived from their use. The value of this marginal product is in turn determined in the light of the consumers' scales of preferences. In this way the neo-classicists succeed in reversing the logic of the central argument: rather than the personal distribution of income determining the behaviour

¹¹"The equilibrium condition is that the rate at which the individual is willing to substitute be equal to the rate at which he can substitute Y for X", Milton Friedman, *Price Theory: a Provisional Text* (Chicago, Aldine Publishing Company, 1962), p. 40.

of the market, it would seem that the behaviour of the market determines the functional distribution of income. The missing link for the neo-classicists is the connexion between the personal distribution of income and the composition of demand.

When each owner of a factor of production—say, each labourer as the owner of his labour power—receives remuneration equivalent to the value of his contribution to the marginal product, the neo-classical theory postulates that, *in conditions of perfect competition*, the factor markets are in stable equilibrium. It has already been observed that, even if this functional distribution of income signifies extreme poverty for certain recipients of income, this is an aspect which falls outside the neo-classical approach. Each ‘factor’ is assigned a marginal value equivalent to that which it contributes, and this proposition makes it possible to insinuate the subtle fallacy that the process involved is an equitable one.

In the above-mentioned conditions of perfect competition, any type of technological change which reduces average and marginal unit costs for each possible level of product in the long term will feed through to prices. This means that in long-term stable equilibrium any innovation which raises the productivity of the factors spreads to all competitors, eliminating extraordinary profits and ensuring a position of general equilibrium where average costs, marginal costs and unit prices are equal. These conclusions, which are specific to the micro-economic theories relating to partial equilibrium, involve the logic of a system where extraordinary profits cannot exist and where—given the relative availability of factors—any introduction of technical progress is ‘openly’ appropriated by a decline in unit prices in the branch concerned. This mechanism ensures that no extraordinary profits or surpluses exist which cannot be explained by the theory of marginal productivity.

In order for there to be a situation of general equilibrium, it is necessary that in each enterprise ‘extraordinary profits’ should be nil. Then, starting from a position of general equi-

librium, the economic process could reproduce itself indefinitely in identical form. We will now endeavour to show that, without perfect competition, there can be no stable general equilibrium.

In oligopolistic conditions, for example, the profits of the oligopolistic enterprises will be the losses of the firms which operate in competitive conditions. According to Say’s law, at the macro-economic level supply creates its own demand. This idea can be understood in the sense that production at factor cost generates incomes whose value is the exact counterpart of the value of supply in real or physical terms. If the physical composition of supply and demand coincide *ex ante*, this overall value should permit the complete disposal of the final goods which make up the product. However, as the value of the income generated is equal to the value of the product at factor cost, no ‘extraordinary profits’ will exist at the macro-economic level. In this way, the profits of enterprises which are monopolistic (or oligopolistic, or whatever term might be chosen to describe those which are best placed in the market structure) will have to be secured at the expense of the enterprises which do not share their privileged position. Within this ‘zero-sum game’, in which the profits of some can only be obtained from the losses of others, the tendency towards stable general equilibrium will have become transformed into a recurrent disequilibrium in which the initial asymmetries are accentuated. Left to its own ‘internal logic’, the system would reproduce the conditions of disequilibrium in a circular manner, recalling the processes of cumulative change suggested by Myrdal. Without stable *general* equilibrium it is not possible to postulate stable *partial* equilibrium, at least under the static conditions analysed here.

An economic system governed by general market equilibrium and the open appropriation of the benefits of productivity requires, both for the neo-classical economists and for Marx, static conditions of perfect competition which distort the concrete dynamics observed in the economic development of the capitalist societies.

II

General purchasing power and the nature of value

1. *Determination of value in barter conditions*

In general, purchasing power is one of the many social forms of power, since it enables those who possess it to appropriate objects owned by others. Coercion, in the form of violence or the threat of violence, may, for example, confer purchasing power on the stronger to the detriment of the weaker.

When violence is eliminated from the picture, we may assume an abstract and hypothetical barter situation. Let us suppose that a farmer regularly exchanges 50 units of cereal with a herdsman for 10 head of cattle; in this case, the purchasing power which each unit of cereal secures for the farmer is one-fifth when expressed in head of cattle, while the purchasing power which each head of cattle confers on the herdsman, expressed in units of cereal, is 5.

If we rule out any means of obtaining commodities without giving something in exchange—using violence, threats or persuasion—the only way of possessing commodities for exchange is to produce them first. And since the exchanges occur with a given frequency in time—for example, at monthly fairs—the number of units offered in each barter process will represent equal periods of time of living labour performed by each party, assuming *for the sake of simplicity* that each offers his entire production because no-one consumes what he produces or produces what he consumes. If in addition we assume rudimentary technologies, where negligible use is made of accumulated labour and where the entire process depends almost exclusively on living labour, the total quantities of each commodity offered by each participant will contain more or less equivalent quantities of labour, assuming that each works every day from dawn to dusk.

This imaginary economy, where everyone offers what he has personally produced, is governed by the exchange of equivalents as regards the labour content of each commodity—the law of value—in the sphere of circula-

tion, and by the principle of 'to each according to his work' in the sphere of distribution.¹²

In terms of personal purchasing power, this means that the total amount of labour embodied in other commodities which each party can acquire is equal to the total amount of labour he has invested in the commodities which he is offering. If this is the case, both the ratio of exchange between the goods—the terms of trade—and the changes which occur in them depend on the *technical* conditions of production and any changes which may occur in them.

It should be noted in particular that, if one of the parties can offer a greater quantity of goods per unit of labour time, this is because his productivity has risen. This in turn leads to a rise in the relative abundance of that good in relation to the others which are offered, and, as a consequence, its exchange value declines. In this way technical progress does not prevent the terms of trade from reflecting simultaneously changes in the relative scarcity and labour content of each good.

To put it briefly, technical progress is compatible with the application of the law of value and at the same time with the points of equilibrium of supply and demand. In these conditions *the open appropriation of the benefits of productivity prevails*, except in the special case where the rise in productivity is not reflected in an increase in supply, but in an increase in leisure on the part of the most productive supplier.

If we eliminate the alternative of greater leisure, the rise in productivity by each producer participating in the exchange will be reflected in greater relative abundance of the good and, accordingly, in an increase in the general

¹²However, on the above assumptions, if there were more than two participants, there would still be no necessary reason for the law of value to be fulfilled, since individual preferences, for example, might generate exchange relations which were not in keeping with the law.

purchasing power of the remaining participants in the barter system.¹³

2. Determination of value in market conditions

However, a market relationship is very different. Those who possess useful objects have no 'face-to-face' relationship with one another as in barter, and do not identify one another by the commodity they produce, and thus offer. On the contrary, at any moment in the process, those who possess commodities are seeking those who possess money, without asking where, how or when they obtained it.

We might assume that access to money can only be secured by means of a sale, so that any purchaser would previously have to have been a seller. This would be a case of simple circulation of commodities,¹⁴ where money is an expression of the exchange value of the commodities and serves only to eliminate the practical inconveniences of bartering.

However, a rapid and superficial glance at history would show us that there are many ways of gaining control of money and the sources of money, and in general terms the possession of money *in large quantities* is not initially derived from the *prior* production and sale of commodities but from a varied and changing set of power positions which stem from the concrete dynamics of the social structure.

Thus, the facts show the opposite: some participants come to the market in possession of money obtained from sources other than the sale of an object they have personally produced. This situation becomes clearer as the commodities used as money become more 'specialized' and cease to possess 'intrinsic value', either because they cannot be used for any other purpose, or because their exchange value does not depend on the amount of labour required to produce them. This is particularly true when money takes the form of a piece of paper whose acceptance is made obligatory by virtue of a simple determination on the part of the State.

¹³Here it is assumed that any absolute rise in the supply of a given good is totally absorbed by the other parties, but with modifications in the exchange value of the good.

¹⁴This, as is well known, corresponds to one of the modes of production analysed by Marx as pure types.

In our original idyllic and imaginary barter situation—or even in a similar situation where money was one more commodity functioning as a unit of account—the purchasing power of each party was linked to the work he performed.

However, all civilized societies have devised power mechanisms under which some of their members—to date a minority—have been able to share in the social product without having to justify their share as remuneration for their personal labour. Offerings to priests, taxes paid to the State and remuneration paid to owners of property are among the ways of receiving *surplus labour* in the form of products which will not be directly used by those who worked directly to generate them. This applies as fully and inevitably to Egyptian society of 5,000 years ago as to modern capitalist or socialist societies.

In these surplus-producing societies, the purchasing power of each producer is clearly distinguished from his productive power (or productivity) per unit of labour time, since part of his product will be consumed by élites engaged exclusively in political, martial, scientific, artistic, religious or other tasks.

In modern capitalist and socialist societies *personal income* takes the form of money for the most part, and knowledge of its distribution is a decisive factor in ascertaining the composition of demand. Goods are not exchanged for goods, but for money: as a result, any change in the magnitude or distribution of monetary income will in the short term affect the level and structure of relative prices. And this occurs *independently* of what happens in the technical sphere of production.

Money is the objectification and the measure of purchasing power—purchasing power which is predicated with respect to commodities. Part of those commodities constitute the social product, which is the flow of *final* goods and services periodically emerging from the process of production. Conversely, the counterpart of this physical flow is a flow of monetary units (essentially wages and payments for use of property) that productive enterprises pay as incomes to those who make the process of production technically possible.

As we shall see below in greater detail,

these money payments made by enterprises constitute circulating capital when they are transferred to the workers, recipients of payment for the use of their property, and others who make possible the process of production. Meanwhile, the same money flows which, from the viewpoint of the enterprises, constitute capital are regarded as incomes by their recipients.¹⁵

At this point it is necessary to ask: what is the general purchasing power which is ascribed to each unit of monetary income, and on what does it depend?

In an initial, *superficial* analysis, the general purchasing power of each unit of monetary income depends on the relative magnitude of two flows: a flow of concrete units of final consumption goods and services, and a flow of units of monetary income.

If, in order to eliminate from our field of analysis the question of insufficient effective demand, we assume that the entire global income is spent within the periods in which it is received, it is possible to calculate for each period a general level of prices which represents the *average* quantity of units of monetary income which are transferred in exchange for each concrete unit of social product. It is therefore clear that the general purchasing power of each unit of monetary income is inversely proportional to the average general level of prices corresponding to the period.

Still in macro-economic terms, it is possible to imagine three situations which make possible stability in the level of prices, and consequently in the purchasing power of each unit of monetary income. Firstly, where the total magnitude of physical and monetary flows remains constant per unit of time; secondly and thirdly, where the rate of growth (or decline) in the two flows is synchronized at a single rate.

Changes in the general purchasing power of each unit of monetary income allow a larger number of possibilities. This general purchasing power may *grow*: (i) because the total number of units of product flowing per unit of time

remains constant, while the number of units which compose monetary income tends to fall; (ii) because both decline, but the flow of monetary income declines more rapidly; (iii) because both grow, but the flow of monetary income grows more slowly.

On the other hand, the purchasing power of each unit of monetary income may fall: (i) because the total number of units of product flowing per unit of time remains constant, while the number of monetary units which have been paid in the form of income tends to grow; (ii) because both flows decline, but the flow of monetary income declines more slowly; (iii) because both rise, but the flow of monetary income rises more rapidly. However, only some of these theoretical possibilities are historically significant.

We may use the term *unit of real income* for the general purchasing power ascribed to the possession of each unit of monetary income. It is equal to the monetary unit of income divided by the average level of prices corresponding to the period under consideration.

What is actually being measured by each unit of 'real' income thus defined? It does not measure magnitudes of utility, satisfaction or welfare, because there is no objective unit of measurement, and also because the concrete components of the social product also include arms which will be acquired by murderers, drugs and narcotics, products which will cause irreparable damage to the environment, and so on. Nor does it measure magnitudes of social labour—living or past—because the total quantity the product generated depends not only on the amount of labour contributed but on the average levels of labour *productivity*, which are constantly changing. Consequently, changes in the total quantity of the product have no constant or necessary relationship with changes in the total quantity of labour.

Each unit of 'real' income merely measures magnitudes of general purchasing power, and is inversely proportional to the average general level of prices. In fact, when we say that 'real' income expresses the purchasing power of monetary income, we are using an *incorrect* expression. Purchasing power can only be postulated with respect to human beings, who possess reason, awareness and will. It is a social

¹⁵We shall not consider here flows of circulating capital between enterprises; the argument will be based only on that part of the capital which leaves the sphere of the enterprises in the form of income.

form of power, or, more precisely, a translation to the economic sphere of many and varied forms of power which stem from the social structure. As a result, purchasing power belongs not to the monetary income, but to the owner of that income. A similar observation might be made, if a digression will be permitted, regarding the expression "payments for services rendered by the factors of production", which in fact are not paid to the 'services', but to the owners of the factors. Nevertheless, in the interests of brevity we may accept incorrect but succinct expressions such as "the purchasing power of income".

Let us now delve a little more deeply into the factors which may affect the economic value—that is, the general purchasing power—'of' monetary income; and let it be clear that what we are calling real income is the *economic value* of monetary income.

First and foremost it is necessary to inquire into the 'social justification' of the monetary incomes which are distributed as a counterpart of the flow of final products which emerge, after some delay, from the process of production. In this regard, the conventional wisdom in economic science holds that these monetary incomes are compensation for the contribution to production made by each owner of the factors of production used.

Discussion of 'merits' is associated with the problem of attribution, because it involves the question of whether it is possible to identify which proportion of the product, within each unit of production, *corresponds* to each owner of factors of production and *legitimizes* the remuneration he seeks. Since we shall return to this point in the final section of the article, it will suffice for the present to say that these 'merits' cannot be logically 'deduced' from abstract, universally valid principles, nor can they be inferred from observation of the concrete processes of production which derive from each economic activity.

Here we shall assert that the relationship between participation in the process of production and the income received by virtue of that participation is a relationship of power. All those who share in the 'power to produce' or 'productive power' of enterprises must be remunerated so that they do not use their power

to hinder or obstruct the process. Wages, consequently, should be regarded as a payment to the worker to ensure that he does not hinder the process of production by refusing to work, and the same may be said of the rent for use of land paid to its owner. They are of importance in the process of production and, since the factors are their private property, they can exert their power by omission—by refusing to make them available. The *extent* to which they can exert this power is a very different matter. The very size of the remuneration they receive is an economic measure of the bargaining power which arises from their respective positions in the social structure. This power is in part exerted 'by omission', through the creation of a relative scarcity of essential productive resources, but many other factors of a socio-cultural and political nature are also involved.

Taxes paid to the State, for example, constitute recognition of the 'active' power that the State can exert by, for example, ordering the closure of an enterprise which does not fulfil its tax obligations.

This social struggle out of which the distribution of money income arises is both *prior* and *external* to the process of production proper, simply because before producing it is necessary to be *able* to produce. To put it in a briefer and almost self-evident manner, production presupposes productive power, which is moulded by co-operation in the technical sphere between members of society who have opposed interests in the economic sphere.

Obviously, the distribution of monetary income becomes the distribution of real income only when the recipients of incomes come to the market and convert that income into demand, which becomes effective in respect of the final product which flows from the sphere of production. It is here that the purchasing power latent in each monetary unit becomes explicit and is realized.

However, the sphere of production is a 'mosaic' of heterogeneous technical processes which operate between branches of production, and even within each branch. This means that even workers with the *same* qualifications carrying out the *same* activity can record different levels of technical productivity. *Within* each branch, the enterprises with more advan-

ced techniques will produce more units per man-hour, and will consequently be able to pay higher wages and other benefits which, within certain limits, will be compatible with rates of profit at or above the average for the branch. However, only enterprises with sufficient capital —purchasing power applied to production— will be able to obtain access to these more advanced techniques and so raise the physical productivity of human labour.

If this process is viewed as a whole, and from a dynamic viewpoint, it is the power positions and relations stemming from the social structure which in the final analysis determine the distribution of both the purchasing power and the productive power generated in each economic system, and the way in which they may change as a result of growth.¹⁶

Finally, we may note the sterility of the conventional wisdom concerning the theory of value and distribution in conditions of general equilibrium as far as explaining the phenomenon of inflation is concerned.

It is precisely through its efforts to grasp this issue intellectually that Latin American structuralism has established a link between the themes of power, in its many social forms, and its concrete manifestations in the sphere of general purchasing power.¹⁷

Inflation is a persistent imbalance which takes the form of a sustained decline in the general purchasing power associated with the possession of each unit of monetary income.

Growth in the supply of money is the element on which 'monetarist' attention is fo-

cusSED, and if we ignore the dynamics of the social structure and power relationships at the international level, we will have an explanation which is superficial but may be accompanied by concrete practical recommendations on ways and means of slowing down growth in the average general level of prices. These recommendations, which have connexions with the orthodoxy of virtuous fiscal and credit policies, have a social cost which usually takes the form of recession, unemployment and concentration of income distribution if they are not accompanied by 'real' measures which affect the power positions and relations arising from the social structure. Even if we ignore the structural imbalances which derive from each country's position in the world economic order, there still remain on the domestic level many factors of social conflict which constitute the expression of the power of the different social classes and groups to appropriate a share of the flow of the social product.

The study of inflation enables us to observe on a larger and in some cases 'blown-up' scale the social conflict which underlies fluctuations in the distribution of monetary income and in the structure of relative prices. However, this social conflict, which is *constantly* in existence, is particularly prominent when the total magnitudes of the real product sought by the different classes, subclasses and sectors which comprise the social structure are greater than those actually being generated by the system. The *basic structural foundations* of this struggle are connected with the network of social and technical positions and relations which

¹⁶The study of these differentiated *technical and social* positions and their influence on the distribution of general purchasing power in the societies of the periphery is usually approached in terms of the concept of *structural heterogeneity*. See, for example, Aníbal Pinto, "Heterogeneidad estructural y modelo de desarrollo reciente en América Latina", in his collection of essays *Inflación, Raíces Estructurales* (Mexico City, Fondo de Cultura Económica, 1973). For a dynamic appreciation of the subject of structural heterogeneity, see Raúl Prebisch, "Socioeconomic structure and crisis of peripheral capitalism", *CEPAL Review*, No. 6 (second half of 1978), particularly section III. See also Osvaldo Sunkel, "La dependencia y la heterogeneidad estructural", *El Trimestre Económico* (Mexico City), No. 177 (January-March 1978).

¹⁷See, for example, Raúl Prebisch, *Hacia una Dinámica del Desarrollo Latinoamericano* (Mexico City, Fondo de Cultura Económica, 1963), section B-II, "El funcionamiento

de del sistema y la estructura social". See also the appendix, "El falso dilema entre desarrollo económico estabilidad monetaria". See in addition Aníbal Pinto, "Raíces estructurales de la inflación en América Latina", in *Inflación, Raíces Estructurales*, *op. cit.*; Osvaldo Sunkel, "La inflación chilena: un enfoque heterodoxo", *El Trimestre Económico*, No. 100 (October-December 1958); and Osvaldo Sunkel, "El fracaso de las políticas de estabilización en el contexto del desarrollo latinoamericano", *El Trimestre Económico*, No. 120 (October-December 1963). For a more strictly sociological approach to the question, see Jorge Graciarena, "Estructura de poder y distribución del ingreso en América Latina", in Alejandro Foxley, ed., *Distribución del Ingreso* (Mexico City, Fondo de Cultura Económica, 1974), and Rolando Franco, "Apuntes para un análisis sociológico de la inflación", *Revista Paraguaya de Sociología*, No. 36 (May-August 1976).

form around the processes of production, distribution and circulation of the means of production and the social product.¹⁸ From these basic structural foundations arises a specific manner of distributing money income which interacts with the rate and distribution of technical progress within the structure of production. This process is by no means 'spontaneous', and is to a very large extent determined by the actions—or omissions—which derive from the government's concrete economic policy. This

process especially complex in Latin American societies, both because of their position in the world economic order and because of the internal heterogeneity of their social structure, which is inherent in the peripheral forms of capitalist development. Since it is not our aim here to diagnose concrete situations, we will endeavour to adapt these arguments to the analysis of some essential categories required in order to explain the process of capitalist development.

III

Value and capital

1. Money and economic value

The earliest contributions to economic thought speak of value as 'something' which is 'contained' in the object of exchange. As long ago as the time of Aristotle¹⁹ a distinction was made between the utility of an object and its suitability for exchange. The classical economists and Marx distinguished between use value and exchange value. Use value was the capacity of the object to meet the needs or fulfil the purposes of its users. Exchange value was the quantity of *other* goods which could be exchanged for a unit of the good whose value it was wished to

calculate. The paradox of value, which preoccupied many thinkers, emphasized the fact that objects with little use value—such as diamonds or other precious stones—might come to have a very high exchange value, while very useful objects, such as water, had an infinitesimal exchange value per unit.

This led the classical economists, and also Marx, to make a categorical distinction between use value and exchange value, and focus attention on the latter. This gave rise to the theories of economic value based on labour, which held that the number of units of one good which could be exchanged for another depended on the labour content of each. We will not linger here on the nuances and complexities of this school, because they are not relevant to the argument to be presented; we need only note that for this school exchange value depends on 'something' incorporated in the object being valued, namely its labour content.

In the last third of the nineteenth century the neo-classical liberal economists turned again to the use value or utility of 'goods', finding an apparent solution to the paradox of value. They noted that the satisfaction furnished in each case by a 'good' depends not only on the qualities that confer utility on it, but on its relative abundance or scarcity. Hence as water is very useful, but also very abundant, its exchange value is low, while the opposite applies to diamonds. The very idea of an 'economic

¹⁸The structural heterogeneity of Latin American societies might be broadly defined as the coexistence of social and technical positions and relations which, in politically unified national societies, correspond to different phases and forms of regional development. This heterogeneity may be analysed in the light of its three main dimensions. The first relates to the structures of production, in which many technical processes coexist and interact. The second concerns the social relations which are formed on the basis of the processes of production. The third appears basically in the political sphere, and concerns the institutional order which endorses and guarantees the structure and functioning of the power system. See Aníbal Pinto and Armando Di Filippo, "Desarrollo y pobreza en la América Latina: un enfoque histórico-estructural", *El Trimestre Económico*, No. 183 (July-September 1979).

¹⁹"Twofold is the use of every object... The one is peculiar to the object as such, the other is not, as a sandal which may be worn, and is also exchangeable." Aristotle, *De Republica*, I, i, chapter 9.

good' sums up both features: utility and scarcity. Consequently, under this approach what is important is not the 'general' or 'average' utility of a good, but the utility which each additional or marginal unit of the good furnishes to each consumer individually. The inverse relation between utility and abundance is expressed in the law of diminishing marginal utility.

It can thus be seen that for both schools the exchange value of a commodity results not from the social relations of exchange, but from 'something' which is specific to the object. In the labour theories of value, the *starting point* for the exchange value of an object is represented by the amount of productive labour invested in it by its 'direct producers'. In the marginal utility theories it is represented by the marginal utility found in it by its 'direct consumers'.

The social relation of exchange arises subsequently, and normally appears first in the form of barter. In Marx's case, his whole theory of value *starts from* a situation of barter, and not of trade, with the barter operation split into two stages, purchase and sale. The neo-classical economists also begin their argument with an analysis of a hypothetical barter situation, or at most with money introduced as a 'neutral' unit of account.

But there is not need for us to become immersed in conceptual complexities. It will suffice to say that for all these theories, when the social relation of barter appears in the analysis, the fundamental fact of attributing value has already occurred, either because the commodities *already* contain the labour which confers value on them, or because the potential consumer has already—in a prior act of introspection—determined the relative utility of the goods he will consume.

In short, both theories come to the social relations of exchange not only belatedly, but also mistakenly. Belatedly, because they view the fundamental act of attributing value—incorporating labour or assigning utility—as external to that relation. Mistakenly, because they do not recognize the specificity of money, but treat it as one more commodity (Marx) or as a simple unit of account. In this way they lose sight of the central significance of money as the

objectification and measure of general purchasing power, whose genesis and distribution must stand at the heart of any theory of economic value.

2. General purchasing power and the use of money

The broadest category we shall use here to examine the operation of a capitalist economic system is the concept of general purchasing power, which is associated with the possession of money. In capitalist societies, market relations of exchange attain general applicability by converting into commodities not only the products of human labour but also the means and conditions—human and non-human—of production. It is in this context that the purchasing power conferred by money acquires greatest significance.

Money is not a commodity in itself, but it is the general incentive which converts into commodities the objects of exchange which are bartered for it, thus conferring general purchasing power on its possessors. The social division of labour requires money, and money requires the social division of labour.

We call money the *general* medium of exchange, which has the quality of conferring on those who possess it similarly general purchasing power, which money itself is responsible for measuring; and we call commodities the remaining objects of exchange which are bartered for money. Money is not necessarily a commodity, though it may be one. Commodities are objects of exchange which are desired for their own sake, because of intrinsic properties which characterize them, whereas market practice may reduce money to a *mere token* lacking any use other than serving as such. Market relations are social relations which presuppose specific *social institutions* (such as ownership, contracts, and so on), legal regulations and obligatory standards of behaviour. The system of buying and selling presupposes relations of exchange based on the market which provide a framework for the exercise of general purchasing power.

Here we will refer to the specifically economic aspects of the subject of money—in particular, to economic value, which for us is inseparable from the use of money.

Both the labour theories of value and the subjective marginal utility theories assert that the economic value attributable to a commodity depends on factors external to the market relation proper, and they therefore ignore the significance of money. By leaving aside the independent influence which derives from the distribution of money, they also leave aside general purchasing power, which is measured and exerted through it, and as a result lose sight of the *essential* feature of all market relations. All market relations are basically *relations of power*. All these relations are closely interdependent as a result of the social division of labour. Since each market operation involves a clash of power, the result of this clash must be expressed in *units of power*.

As we have seen, the specifically economic form of power is general purchasing power. Economic value therefore expresses magnitudes of general purchasing power. This central idea has been developed more systematically in section II of this article, and there is no need to linger on this point here.

3. *Capital and the dynamics of attributing value*

Marx discussed the idea of capital with great perspicience, but then obscured its meaning when adopting his labour theory of value. Capital, as we understand it here, is assimilated to the concept of money-capital in Marx as regards its cycles of circulation, but differs radically in terms of economic value. For Marx the economic value of capital lies in the social labour content it mobilizes and appropriates; in other words, money is converted into capital when it acquires potential labour and realizes its potential, i.e., when it extracts labour from its sources, namely workers. For Marx money appropriates not only potential labour, but also past labour crystallized in the form of various means of production which must be combined in a productive manner with that potential labour.

Marx was certainly in no doubt that the ownership of capital gives the capitalist power over the workers he engages. The whole body of Marxian sociology highlights the relations of domination involved when the owner of capital

imposes his power on the owner of labour power.

However, Marx only partially reflected this relationship of power in his basic economic categories; his 'law' of value in fact assumes that all commodities are exchanged for their value.²⁰

Equivalence is assumed in the exchange of commodities with respect to a common magnitude, i.e., the amount of unskilled average (social) labour they contain. Marx's theory of value takes as a starting point a barter situation in which all the commodities being bartered contain the same amount of social labour.

The power of each participant is measured in terms of the amount of labour contained in the commodity offered, and corresponds to the amount of labour—in the form of another good—which he can acquire. The theoretical significance of this proposition lies in the fact that it can serve as a hypothesis in forecasting in what proportions goods will be exchanged in practice. If this 'law' of value is applied, any technical progress which diminishes the labour content of a commodity will reduce its exchange value in relation to other goods. This condition is necessary in order to maintain equality or equilibrium between the labour contents of the different goods. *Under this hypothesis—which is certainly not borne out in practice—the bargaining power of each party in the market is tied to the labour content of his commodity.* If he invests one hour of social labour in his commodity, he will be able to receive only an hour of social labour in the commodities he purchases. If the 'law' of value is accepted, bargaining power or purchasing power loses all importance in determining in what proportions the commodities themselves will be exchanged, since this power is completely subordinate to a technological condition which is *external* to the market relation itself, namely the labour content of each commodity.²¹

²⁰Karl Marx, *Capital*.

²¹We have already analysed the theory of 'modified' value in the light of the concept of 'production price' and the transfers of purchasing power between enterprises which it involves. We have also considered the efforts of the Marxist school to reconcile the concept of production prices with the 'law' of value.

The most significant aspect of this conclusion is that the influence of power relations on the appropriation and generation of the surplus is eliminated from the sphere of relations of exchange based on the market, and thus comes to fall exclusively within the sphere of production.

Of course, *from the very outset* the relations between capitalist and worker manifest an asymmetry of power which finds expression in the fact that the value contained in the money which the capitalist brings to the market is—or can be—incomparably greater than the value of the labour power of each worker.²² Marx recognizes this asymmetry of purchasing power between the capitalist and the worker, which the market is responsible for reflecting and reproducing. What the law of value does is to eliminate from the field of analysis *every other* asymmetry of power than that of this basic relationship between capital and labour which is capable of affecting the process of appropriation of the surplus.

However, in order to expound the law of value in a comprehensive manner, Marx also considers money, in its most genuine expression, as a commodity—gold or silver—whose value is determined like that of any other commodity, on the basis of the amount of labour socially necessary to produce it in average technical conditions.

The shift from money as a commodity to the now widespread forms of money as a token—which can express economic values that are much higher than the actual physical content of the monetary units—involves a radical severance of links between the quantities of money which can be placed on the market and the quantities of labour required for the production of gold and silver.

²²It is another matter to determine for what reason the capitalist is *able* to appear in the market *already* in possession of money-capital, which contains substantial quantities of value, while the worker comes to the market in a position to offer only the meagre value contained in his labour power. The explanation must be sought not in theory, but in history. Marx banishes this problem to the historical process of *primary accumulation*, where the struggles for power in the formative phase of the capitalist social order occur in all their rawness.

Not all the capitalists who appear in the market have obtained their money at the far-off starting point of primary accumulation; some of them have obtained it through much more concrete and real power positions and relations connected with a social structure in which money plays a role as a token and not as a commodity.

Nevertheless Marx's basic explanations concerning value and surplus value take as a point of departure money as a commodity and not as a token.

If the capitalist pays the labourer in copper coin, the coins must be the equivalent, in terms of labour time, of that contained in the commodity acquired. In other words, the wage must be equivalent to the labour time which is socially necessary to produce the labour power of the worker. For Marx, therefore, surplus value arises *in the production sphere* as the difference between the living labour appropriated by the capitalist and the labour contained in the means of subsistence consumed by the labourer. Since in the sphere of circulation the exchange of equivalents prevails, the *general purchasing power* which originates in market relations themselves has no meaning in Marx's theory.

For this reason, Marx sees money as no more than a 'form' into which capital is converted in its cycle of circulation; he holds that capital *has* a value which derives not from its specific form but from the *labour* which lies behind that form.

From our viewpoint money-capital is a magnitude of general purchasing power—and is consequently an economic value—which can only be *exerted* (as regards the power) and measured (as regards the magnitude) in terms of money. The purchasing power conferred by this money does not depend on the labour content of each monetary unit, but on technical and social conditions which mould the power structure in each society.

Capital is a magnitude of general purchasing power which acquires means of production and stimulates the productive power of the economic system with the aim of ensuring that the capital reproduces itself within a process of growth. This is the specifically capitalist form of capital.

4. Capital and capital goods

Viewed in this way, capital should be distinguished as a concept from capital goods. Capital is a magnitude of purchasing power used to acquire or hire the means of production (both human and non-human), which become capital goods. They are 'converted' into capital goods when the capitalist uses his purchasing power to appropriate them.

Under Marx's labour theory of value, the *technical* significance of producers' goods and their *economic value* become fused into a single whole when expressed in the form of social labour time.

When capital is distinguished from capital goods, a clear distinction is made between the sphere of circulation and the sphere of production.²³

5. Capital and time

Moreover, this distinction demands a *dynamic* analysis, which is explicit in the process of capital circulation postulated by Marx, but which Marx forgot when elaborating further on the theory of value and surplus value at the macro-economic level.

When the phases of capital circulation which Marx himself highlighted (m-c-m') are distinguished, it is obvious that between them there exists an irreversible order and time sequence. Capitalists taken together as a social class pay wages to workers and rents to the owners of land, thus generating incomes which return in the form of demand to acquire the commodities that the capitalists themselves will offer.²⁴ If we disregard delays, the very incomes paid by the capitalists will return in the form of demand for the product generated in response to the payment of that remuneration. But these incomes are equivalent to the value

²³The means of production are not capital goods in themselves. They are converted into capital goods when they are acquired by the capitalist. From this viewpoint, the process of capital accumulation does not necessarily involve the *capitalist production* of new capital goods; it may also involve the appropriation by capital of other, pre-existing producers' goods.

²⁴No account is taken here of sales of intermediate inputs from one enterprise to another.

of the product at factor cost, and *do not include* profit. Consequently, if only the same quantity of money which the capitalist enterprises have placed in circulation returns to them, from where do they obtain the profit, understood as a surplus over and above total costs? Profit thus remains unexplained because of the static nature of the approach.²⁵

For the neo-classicists, as we have seen, the problem of profits does not affect the logical validity of their model of general equilibrium, which assumes static conditions of perfect competition. The concept of factors of production is used, and it is assumed that each factor receives payment equivalent to the marginal value of its contribution to the product. Entrepreneurs regulate their demand for capital (understood as purchasing power) in the light of the marginal productivity of capital (understood as a factor of production) in new investment. The suppliers of purchasing power which will be used as capital —i.e., savers— charge interest, which is compensation for the postponement of their consumption. Consequently the remuneration of capital as a factor of production exactly offsets the value of its marginal contribution to the total product, and includes no surplus. Meanwhile, payment for capital as a magnitude of purchasing power is expressed through the interest rate, and is compensation for the 'disutility' arising from the postponement of consumption.

In this way, the neo-classical economists ignore profit viewed as a net surplus over costs. Capital in the strict sense results from saving, and savers are compensated for the 'disutility' they suffer. Capital as a factor of production assumes an independent and active role in generating value, and merits compensation, which of course is received not by the 'factor' but by its owner.

This explanation of the marginal utility approach must be modified to take account of the contributions of a few neo-classical economists who have recognized the influence of time in

²⁵When analysing the process of capital circulation, Marx adopts a *dynamic* approach in volume II of his principal work; however, his approach is *static* when he endeavours to explain the realization of surplus value at the macro-economic level. See section V below.

the logic of capital, and even its function as a repository of economic power.²⁶

Böhm-Bawerk, following a path previously opened up by Jevons, establishes a significant association between time and capital. He defines capital (here in the form of a capital good) as an extension of the process of production which raises the productivity of human labour. However, after this auspicious start, Böhm-Bawerk returns to the fold of neo-classical theory. The supply of capital (understood as a value) from individuals who save has a price, charged by those savers. How is the magnitude of the savings which will be offered on the capital mar-

ket determined? In answer to this question he presents his theory that future goods are valued less highly than present goods. In this way, the supply of capital capable of financing investment has a price which, in the final analysis, depends on the psychological attitude of savers.

Strictly speaking, what should interest us in Böhm-Bawerk²⁷ is not the length of the period of production—which is a false problem—nor the psychological attitude of individual savers, but the distribution of purchasing power which makes their saving possible and is added to the profit which remains in the enterprises.

IV

Development, capital, cycles and the surplus in Schumpeter's economic approach

The most appropriate theoretical framework for understanding the concept of capital used here, and the concept of the surplus formulated by Prebisch, which is dealt with in subsequent sections, is that derived from the work of Joseph A. Schumpeter.

Schumpeter held that economic development involves conditions of general disequilibrium which can only be introduced in the economic process thanks to the use entrepreneurs make of credit in order to incorporate innovations which raise the productivity of human labour.

In conditions of general equilibrium and full employment, or conditions of 'circular flow', as he termed it, macro-economic profit will be nil and interests, which in Schumpeter's view can exist only as a fraction of that profit, will also be nil. Profit as he conceives it is, strictly speaking, *a surplus derived from economic development*.

The innovating entrepreneur raises labour productivity in his technical processes and lowers unit costs; this brings him an extraordinary profit over his competitors.²⁸ This profit, clearly understood as a surplus over entrepreneurial costs, will remain until the innovation has spread to all competitors in the economic branch concerned. Then the innovation as such disappears, and becomes a generally used technical process.

The changes are introduced by the innovating entrepreneur, on the basis of access to capital which derives from credit and involves the creation of money which has as a counterpart not a *real* product, but a *potential* product. If, like Schumpeter, we take as a starting point 'circular flow' in conditions of full employment, this credit makes it possible to transfer material and human resources from their old

²⁶An analysis of the significance of time in economic theory and the conception of capital adopted by the economists of the Austrian school appears in G.L.S. Shackle, *Epistemics and Economics: A Critique of Economic Doctrines* (Cambridge, Cambridge University Press, 1972).

²⁷What merits consideration is not the length of the period of production but the increase in labour productivity per unit of time. This increase *can be observed* over time; however, it does not depend merely on the passing of time, but on the introduction of technical progress.

²⁸This concept is similar to Marx's concept of extraordinary surplus value.

uses to the new ones involved in the innovation; this gives rise to additional and unexpected demand in the markets for factors of production, which succeeds in changing the direction laid down in the previous course of production. The capital appropriated and used by the innovating entrepreneur constitutes purchasing power which he exerts on the factor markets, and which, through the credit mechanism, is (involuntarily) transferred to him by the other entrepreneurs who have not been as successful in the financial market.

This necessarily initiates a cyclical process based on inflationary pressures on the cost side, until the emergence of the final product, which is the result of the innovation and generates the profit which is used to pay the interest that constitutes the price of the credit granted.

In short, in conditions of 'circular flow' with full utilization of the factors of production, profit could not exist as a net macro-economic magnitude. But the innovating entrepreneur 'breaks' the circular flow, acquires command over the purchasing power of the capital, imposes an innovation which lowers unit costs, secures extraordinary profits and pays the interest.²⁹

For Schumpeter economic cycles represent the adaptation of the economic system to the unfolding process which stems from entrepreneurial innovations.

Schumpeter's contributions are of excep-

tional originality, especially as regards his conception of capital. In *The Theory of Economic Development* he speaks of *purchasing power* made available to innovating entrepreneurs, but later, in *Business Cycles*, when he observes that capital—in one of its acceptations, the monetary one—is not a factor of production but a differentiable agent which stands between the entrepreneur and the factors of production,³⁰ he appears to broaden his definition to include the general purchasing power controlled by all entrepreneurs, and not only innovators.

The issues which occupied Schumpeter's attention were economic development, cycles, profit as a surplus derived from innovation, and interest as a payment derived from the existence of that profit. Consequently, although he did not wish to press his attacks on the theory of general equilibrium, his scientific discoveries furnished very solid grounds for a critique of the neo-classical model based on the theoretical apparatus of the marginal utility school.

²⁹ "If entrepreneurs were in a position to commandeer the producers' goods which they need to carry their new plans into effect, there would still be entrepreneurs' profit, but no part of it would have to be paid out by them as interest. Nor would there be any motive for them to consider part of it as interest on the 'capital' they expend [emphasis in original]. On the contrary, the whole of what they make over and above costs would be 'profits' to them and nothing else. It is only because other people have command of the necessary producers' goods that entrepreneurs must call in the capitalist to help them to remove the obstacle which private property in means of production or the right to dispose freely of one's personal services puts in their way. No such help is wanted in producing within the circular flow, for firms already running can be, and in principle are, currently financed by previous receipts, which stream to them without the intervention of any distinct capitalistic agency." Joseph A. Schumpeter, *The Theory of Economic Development*, trans. Redvers Opie (Cambridge, Mass., Harvard University Press, 1951), p. 177.

³⁰ In *Business Cycles*, Schumpeter writes that "it is, perhaps, best to avoid altogether a term which has been the source of so much confusion and to replace it by what it means in every case—equipment or intermediate goods and so on—and this we shall do, except in cases in which no misunderstanding is likely to arise. But it is suggested that those two monetary concepts [interest and capital] open a serviceable door by which to introduce the element of money into general theory. Only the second is, however, relevant here. Capital in this sense is not goods but balances, not a factor of production but a distinct agent which stands between the entrepreneur and the factors. It can be created by banks because balances can. Its increase and decrease are not the same as increase and decrease of commodities or any particular class of commodities. Its market is simply the money market, and there is no other capital market. No realistic meaning attaches to the statement that, in the latter, 'capital' (= some kind or other of producers' goods) is being 'lent in the form of money'. But again as in the case of interest it is necessary to add that the introduction into our analysis of this concept of capital does not do away with the problems of what is traditionally referred to as real capital—on the contrary, they reappear though in a new garb—and that results arrived at by means of a monetary theory of capital do not always invalidate, but in many cases only reformulate, the propositions of 'real' theories of capital. If our understanding of the processes of capitalist society hinges in important respects on realizing the fact that monetary capital is a distinct agent, it also hinges in not less important respects on realizing how it is related to the world of commodities". J. Schumpeter, *Business Cycles* (New York, McGraw-Hill, 1939), vol. I, p. 129.

V

Global surplus, distribution surplus and entrepreneurial surplus

1. *The concept of the global surplus*³¹

The term "global economic surplus" might be applied, in its broadest sense, to that part of the social product which is not appropriated by those who have directly contributed to generating it by means of their personal labour. The exposition below, however, will be clearest if we distinguish two components of the overall concept of the economic surplus: the 'distribution surplus' and the 'entrepreneurial surplus'.

The distribution surplus is a condition of the existence of the civilized and urban societies which began to emerge more than five millennia ago, founded on systems of slave labour—as it is of all class societies in which some members of the society enjoy a dispensation from contributing their own labour to ensure the reproduction of the life of the society. The very feature which characterizes the recipients of the surplus is that there is no connexion between the product they appropriate and the labour they contribute.

Within contemporary capitalist societies, there is a *global surplus*, which may be broken down into a 'distribution surplus', corresponding to the different types of payment to the State and to owners of property made by capitalist enterprises, and an entrepreneurial surplus, which remains as a balance in the form of profit. Both economic forms of the surplus also exist in the centrally planned societies, but in

obviously different institutional and socio-political circumstances.³²

For the sake of simplicity, we will consider a 'pure' capitalist system with no public enterprises. Alternatively, we can consider public enterprises—self-financing through the sale of the goods they produce—as falling into the generic category of 'enterprises'.

Those who are provided with incomes by the State—Cabinet ministers, judges, legislators, bureaucrats, members of the armed forces and police, members of the diplomatic corps, and so on—receive remuneration which forms part of the distribution surplus, because they do not contribute *directly* to generating the global product produced by enterprises, and do not finance their incomes with the sale of goods, but with part of the revenues of the State. Thus the existence of a distribution surplus is a *prior* and *necessary* condition for the existence in economic terms of these public servants.

In order to understand the significance of the distribution surplus as presented in this article, and of the entrepreneurial surplus as presented by Prebisch, it is best to begin with the concept of surplus value in Marx and to understand the theoretical difficulties which arise in connexion with the realization of this surplus value. These difficulties relate to what we have called a 'zero-sum game'. Let us examine how Marx himself outlines the difficulty, and how he endeavours to solve it. For that purpose it is necessary to reproduce his argument at some length.

³¹ We should not overlook here the fact that Baran and Bettelheim, in their basic approach to the real economic surplus, maintain that it coincides with the excess of the social product over current consumption. However, from a sociological angle, it would appear preferable to regard the surplus as an income not derived from personal labour. See Paul A. Baran, *The Political Economy of Growth* (New York, Monthly Review Press, 1957), and Charles Bettelheim, *Planeación y Crecimiento Acelerado*, trans. Ramón Ramírez Gómez (Mexico City, Fondo de Cultura Económica, 1965).

³² This distinction relates to the different types of *machinery for appropriation which operate in each case*. Concerning the social use of these forms of the surplus, we might perhaps speak of a surplus *for consumption* and a surplus *for accumulation*. However, it is possible that part of the former may be invested and part of the latter consumed, so that these analytical distinctions overlap in practice.

Marx states that 'before commodity capital is converted back into productive capital, and before the surplus value it contains can be invested, it must be transformed into money. Where does this money come from? This is a difficult problem at first sight, and one which has not been solved to date by Tooke or any other author.

"Let us assume that the outlay of £ 500 of working capital in the form of money capital, whatever its period of turnover, represents the entire working capital of the society, i.e., of the capitalist class, and that the surplus value totals £ 100. How does the capitalist class as a whole contrive to withdraw £ 600 continuously from circulation if it continuously places in circulation only £ 500?

"First the money capital of £ 500 is transformed into productive capital; then, in the process of production, the latter is transformed into commodity capital of £ 600 and places in circulation not only commodity capital of £ 500, equal to the original outlay of money capital, but also a newly produced surplus value of £ 100.

"The additional surplus value of £ 100 is placed in circulation in the form of commodities. This is incontestable. But the additional money required for the circulation of the additional value in commodities cannot emerge from this same operation.

"Therefore we must not attempt to avoid the difficulty by means of evasions of greater or lesser plausibility."³³

A few paragraphs later Marx writes:

"In fact, however paradoxical this may appear at first sight, it is the capitalist class itself which places in circulation the money that is used to realize the surplus value contained in the commodities. However, it does not place this money in circulation as an outlay of money, i.e., as capital, but as a means of paying for its individual consumption. Consequently, it is not money advanced by the capitalist class, although this represents the starting point for its circulation". Later, he continues:

"At the end of the year our capitalist places

in circulation a value of £ 6,000³⁴ in commodities and sells it. In this way he receives back: (1) his outlay of £ 5,000 of money capital; (2) the surplus value of £ 1,000 converted into money. The capitalist has made an outlay of £ 5,000, or has placed it in circulation as capital, and withdraws from circulation £ 6,000: £ 5,000 which represents the capital and £ 1,000 the surplus value. This £ 1,000 is realized in money form together with the money which he himself has placed in circulation, not as a capitalist but as a consumer. Now this £ 1,000 returns to him as the money form of the surplus value produced by him. And thenceforth the same operation is repeated each year. However, from the second year onwards, the £ 1,000 spent by him already constitutes the transformed form, the money form of the surplus value he produces. A surplus value which he spends each year, and which each year returns to him."³⁵

Thus runs Marx's explanation for the case of simple reproduction, where there is no process of growth in capital accumulation. But how do the capitalists go about releasing *precisely* the quantity of money which enables them to reproduce, in the form of money, *exactly* the surplus value which 'corresponds to them' in accordance with the *calculation in terms of labour time*? If they did not the rate of surplus value in the form of money might not be the same as the rate of surplus value in the form of labour. This dilemma is resolved in the sphere of circulation, and not in the sphere of production—in *terms of purchasing power, and not in terms of social labour*.

The same question arises in the cases of extended reproduction, where capital is accumulated and the physical magnitude of the goods traded grows. It is this situation of expansion, moreover, which is historically significant. Marx poses the problem here with a question which does not cover the principal difficulty. In this regard he observes: "and here we

³⁴ As the reader will observe, the figures in pounds sterling used by Marx in this second example differ from those used in the first. This change of scale, however, in no way affects the essential argument, as will be clear to any reader who takes the trouble to refer to the original text.

³⁵ *Ibid.*

³³ Marx, *op. cit.*, vol. II.

encounter again the same problem which arose above: where does the additional money come from to realize the additional surplus value which now exists in the form of commodities?³⁶

In fact this is not the important question, which is: How is it introduced in the mechanism of circulation and, crucially, *how* is it introduced in sufficient and necessary amounts to realize the surplus value? If it is introduced in the form of an income paid by the enterprises, it must represent one more payment which must be accounted for under one more or less precise heading or another. But every payment for a factor of production forms part of the value of the product at factor cost. This payment may take the form of rent to owners of property, a wage for labour or for 'managerial responsibilities', and so on. Whatever the justification, this payment or remuneration will represent a cost for the enterprises and will not help to account for the profit. If it is a payment attributable as a cost incurred by the enterprises, we find ourselves within the 'zero-sum game'. It is not possible that the enterprises taken as a group should receive back in the form of income more than the amount which left them in the form of payments of factors; and consequently the macro-economic profit will be nil.

The principal cause of these obscurities and complexities obviously lies in the fact that the approach is based on a mistaken view of economic values, and is static in nature.³⁷ The Marxian theory of value and surplus value is expressed in terms of social labour and refers to the sphere of production. The undeniable difficulties which Marx encountered in the sphere of realization arise from his mistaken efforts to calculate surplus value and profit *before* the goods undergo the test of the market. This calculation is carried out assuming general market equilibrium and equivalence in exchange. Proceeding on the basis of these two assumptions, which not only simplify the analysis but also

distort it, Marx is able to calculate his surplus value directly in terms of social labour.

What actually happens, however, is different. The appropriation of the distribution surplus —payments to owners of property and taxes to the State originating from the enterprises— derives from a concrete market process which distributes general purchasing power in favour of these recipients. Furthermore, the appropriation of the entrepreneurial surplus involves a more complex dynamic process in which there is a time lag between the sphere of production and the sphere of circulation.

2. *The distribution surplus*

The property-owning class and the State do not appropriate the surplus directly, and enterprises cannot do so either. The total social product must be converted into commodities and be realized in the market. But who will buy that proportion of the commodities in which the distribution surplus is embodied, and with what incomes? More precisely: what is the specifically capitalist mechanism for the appropriation of the distribution surplus?

It is clear that part of the capital which flows from the enterprises is converted into different forms of payments to owners of property and taxes to the State which entrepreneurs must pay in order to secure control of the means of production they require but do not necessarily possess, and to comply with the prevailing tax regulations.

For the sake of simplicity we might apply the term *rents* to the various payments which are appropriated by the owners of means of production who transfer them to the enterprises. These payments form part of the value of the final product at factor cost, and together indicate the power of the recipients of these rents to appropriate a portion of the total income.

The 'owners' —understood here as a subclass distinct from that of 'entrepreneurs'— use part of the rents they receive to compete, in the markets for final consumption goods, with the wage incomes of the workers, with the aim of acquiring a share of the social product which, when deducted from the purchasing power of

³⁶ *Ibid.*

³⁷ Static in the precise sense that no account is taken of time lags which form an *essential* part of the explanation relating to the very existence of macro-economic surplus value.

the workers, acquires the social form of a distribution surplus. The same occurs with the taxes payable to the State.

Through the medium of the incomes which enterprises pay to the owners of property and to the State, there is an increase in the magnitude of the 'nominal' or monetary flow of global income over and above that which corresponds to total money wages. In this way the purchasing power of each unit of income is diluted, because the general level of prices in the market for consumer goods is higher than it would have been if wages had been the only component of total incomes.

It should be noted that this 'dilution' of the general purchasing power of each unit of monetary income does not necessarily imply an inflationary process, because payments to owners of property are a permanent structural component of the distribution of income. If for the sake of simplicity we assume theoretical conditions of a Schupeterian circular flow, then prices will be *stabilized* at a certain level which is higher than if wages had been the only monetary income.

This form of appropriation of the part of the social product which flows towards the property-owning class is based on a specifically market mechanism, founded in turn on a specific manner of distributing general purchasing power.

In the final analysis this distribution surplus is a reflection of the complex power relations which underlie each social structure. *However, since the entrepreneurs will receive back only as much money as they introduced into circulation, this explanation is necessary but not sufficient to cover all the components of the global surplus, since in the conditions outlined so far profit could not exist as a macro-economic magnitude.* But a capitalist system without profit lacks all historical validity. Consequently, this calls for a thorough examination of the dynamic mechanisms which account for the entrepreneurial surplus.

Before continuing, however, it should be stressed that the interpretation of the distribution surplus set forth here is not compatible with the prevailing theories of value in conditions of equilibrium, according to which the relative prices of commodities are proportional

to their social labour content, or to the marginal preferences of their consumers.³⁸

Strictly speaking, the economic value of a commodity is an expression of the relative magnitude of *general purchasing power* which must be exerted in order to acquire it. It does not depend on the labour invested in generating it, or on the 'average' or 'marginal' 'utility' (a metaphysical concept) ascribed to it. Economic value is thus a *phenomenon of power*, and is expressed through the structure of society.

3. The entrepreneurial surplus

Having drawn a conceptual distinction regarding the distribution surplus—as we have endeavoured to describe it here—we will now turn to the 'entrepreneurial surplus' and refer to Prebisch's argument mentioned above.

Prebisch speaks of a surplus *tout court*. We suggest, however, that the present conceptual distinction is necessary. Viewed historically, the process of economic development has traditionally been marked by two basic features: a systematic increase in the productivity of human labour, and an equally constant increase in population and the employment of labour power. Capital accumulation is the means by which rises are achieved in both productivity and employment, which at first sight have contradictory implications. Rises in productivity reflect a fall in the amount of living labour per unit of final product, whereas rises in employment permit an increase in the total amount of

³⁸ The basic line of argument in this explanation may be found in the works of P. J. Proudhon, who clearly postulates this 'dilution' of wage earners' purchasing power by virtue of the additional demand based on the use of incomes from property. In general, this explanation is regarded as trivial and superficial by the theorists who have accepted general equilibrium as a situation towards which the workings of the market tend. See Marx's criticism of Proudhon in *The Poverty of Philosophy* (1847). See also Böhm-Bawerk's criticism in his monumental work *Capital and Interest* (1884-1889). With regard to the present subject see Proudhon's *Système des contradictions économiques ou Philosophie de la misère*, (first published in 1846), with introduction and notes by Roger Picard (Paris, Librairie des sciences politiques et sociales, 1923), 2 vols. As an economist Proudhon undoubtedly had by no means a systematic training, and his theoretical observations in this field are frequently superficial and contradictory. In this exposition of the distribution surplus we have cited only his principal thesis.

living labour within each period of production.

Obviously, in order for a *decline* in the living labour time per unit of final product to be compatible with an *increase* in the total labour incorporated in the economic system, the social product *must grow*. The relationship between these three magnitudes may be tackled mathematically. Thus, for example, if productivity is growing at 2% and there is a need to create jobs at a rate of 3%, it will be necessary for the social product to grow at 5% over the period in question. Against the background of these conditions of growth in the product and in employment, Prebisch explains the emergence of an entrepreneurial surplus as follows.

Firstly, there is a time lag between the circuits of production and circulation, so that the incomes generated in the system are spent before the emergence for sale of the social product generated against payment of those incomes. For the sake of simplicity we might say that today's income is used to purchase yesterday's product.

Secondly, if productivity is increasing, the product will have a lower 'human cost' in terms of the labour time invested to produce each unit. Accordingly, if the average wage per man-hour has not changed, its total *unit* economic cost will have fallen.

However, since employment, and consequently the total value of wages, are increasing, the incomes which will be applied to purchasing the product will have a higher value, and this will lead to a struggle of demand which will permit the total realization of the entire supply without any need for reductions in price, and even with the possibility of rises in the general price level. At the same time, however, this process is perfectly compatible—at least in theory—with a situation of price stability. For that purpose it is sufficient for the rise in incomes generated and spent to occur at the same rate as the rise in the physical quantity of final goods and services.

Thirdly, if this process is to occur, it is necessary for the working capital of the economic system to be growing so that this constant expansion in economic activity and in employment can be financed through the inevitable growth in money. This is an incomplete summary of the explanation furnished by Pre-

bisch concerning the closed appropriation of the increases in labour productivity made possible by the existence of an entrepreneurial surplus.

4. 'Closed' appropriation and the entrepreneurial surplus

With regard to the entrepreneurial surplus, described in outline in the previous section, there is one aspect which may perhaps require clarification. It is theoretically possible to conceive a situation where prices are falling in the same proportions as productivity is rising, but where nevertheless the entrepreneurial surplus persists.

The sole condition for the existence of the entrepreneurial surplus is that within each period average total unit costs should be *lower* than average unit prices. Prices may be declining at the same rate as unit costs, though always remaining proportionately higher than the latter. This will permit the existence of a permanent surplus in the enterprises together with parallel declines in the prices and unit costs of final products.

Let us assume a simplified situation with only two social classes: on the one hand, entrepreneurs/property owners/financiers, and on the other wage-paid workers. If employment grows at a rate of 3% and productivity at 2%, the physical product will expand by 5%.

Let us assume that monetary wages per worker remain constant; then total monetary wages will increase by 3%. These wages, in our simplified example, represent the totality of the available income in each period; therefore, if the quantities produced increase by 5% and the incomes which will furnish demand for them by 3%, prices will fall at the same rate as productivity is rising.

In order for the surplus to disappear, it will be necessary for prices to fall by 5%; in other words, the fall in prices must correspond not to the increased *productivity*, but to the increased *output*.

In the development of Prebisch's argument this difference is not always sufficiently emphasized, although there are some passages where it is stressed more clearly. Thus, for example, Prebisch observes that:

"In the upward movement of production each circuit calls for more employment than the one before, and, in consequence, generates more income and more aggregate demand. And this greater demand partly accounts for the fact that the prices of the goods whose circuit is completed do not fall correlatively with the increase in production due to additional employment and higher productivity."³⁹

Although in the example used here prices fall correlatively with the rise in *productivity* (2%), there will be a surplus because they do not fall correlatively with the increase in output (5%).⁴⁰ The workers appropriate all the increase in productivity, but not all the increase in output.

Obviously rises in *productivity* can also undergo 'closed' appropriation, at least in part. This means that it is conceivable that part of these increases may be converted into a distribution surplus, with no rise in the real wages of the labour force. We shall endeavour to explain this point in the next section.

5. *Interrelations between the global surplus, the distribution surplus and the entrepreneurial surplus*

The *distribution surplus* will be viewed here, in a simplified manner, as the real income appropriated in the form of rents by the owners of property—rural or urban—and in the form of taxes by the State.

Let us assume that only enterprises pay taxes and rents, in addition to remuneration to workers. This assumption raises the share of wages in total income, which would be lower if we accepted that wage earners also have to pay rents and taxes. Likewise, if rent recipients paid taxes, total net incomes in the form of rents

would decline by that same amount to the benefit of the State.

The *entrepreneurial surplus* is the net excess at the end of each economic period which the enterprises hold as a balance after payment of wages, rents and taxes. The *global surplus* is the sum of the distribution surplus and the entrepreneurial surplus at the end of each period. Finally, the difference between the total income (including profit) and the global surplus should correspond to the earnings of workers in the private sector.

This reasoning is carried out in terms of real income, since the purchasing power ascribed to the possession of each monetary unit of income remains constant. We will further assume a situation of growing employment with periodic increases in productivity.

In these general conditions it is possible to conceive of a dynamic process in which the growing labour force appropriates only part of the increases in labour productivity, the remainder of these increases being converted into a distribution surplus and an entrepreneurial surplus.

Let us assume that average labour productivity—expressed in units of final product per worker employed during the period—is growing at a rate of 2%, and the number of workers employed at 3%. This means that the total number of units produced is growing at a rate of 5%. If individual wages are growing at 1%, and employment at 3%, then total wages will necessarily be growing at a rate of 4%. The growth in wages is not sufficient to 'absorb' the growth in the physical product. As a result, in order that demand should not fall and that prices should not decline, it is necessary for the payments made by the enterprises to the recipients of the distribution surplus to grow at such a rate that, on the assumption of price stability, it will be possible for global income to grow at the same rate—5%—as the physical product.

This process can reproduce itself in a stable manner, with the global surplus growing more rapidly, and total wages more slowly, than the total product.

The labour force appropriates only a part of the increases in productivity, since average individual money wages are rising at a rate of 1%, while productivity is increasing by 2%.

³⁹ Raúl Prebisch, "Socio-economic structure and crisis of peripheral capitalism", *CEPAL Review*, No. 6 (second half of 1978), p. 190.

⁴⁰ In order for prices to fall correlatively with the rise in output of final goods, the value of the monetary income required to produce this rise must remain constant. If in period 1 the physical quantity produced is 100 units, and the monetary income generated and spent is \$ 1,000, average prices will stand at 10. If the product doubles in period 2, with a constant flow of incomes, prices will fall to 5 if all the income is translated into effective demand.

Total unit costs and the general price level remain constant because the physical quantity of the final product is growing at the same rate as monetary incomes. And the entrepreneurial surplus is growing at more or less the same rate as the total product.

In this example the entire rise in productivity is transferred to costs as a result of a rise in the remuneration received by the owners of the

factors —wage earners and rent recipients— and by the State. As a result, total unit costs remain constant.

The distribution surplus, which in our example grows faster than total wages, forms part of the economic cost which must be borne by the enterprises in order to constitute their productive power, or, to put it more simply, to be able to produce.

VI

Development, disequilibrium and the surplus in Prebisch

In this section we will pursue our examination of the concept of the economic surplus which remains in the enterprises, as recently advanced by Raúl Prebisch, which cannot be separated from his general view of peripheral development and his specific concerns regarding this broad range of issues.

The presentation of his argument is linked with an old issue which has always been a concern of his —the social forms of appropriation of the benefits of growing productivity.

Prebisch originally analysed this question in order to subject to critical examination the theory of comparative advantages which then predominated in international trade. He argued that productivity increases in production of the manufactures exported by the central countries led to a proportionally smaller drop in unit costs because workers in the centres had greater power to increase their real wages in line with the rise in productivity. At the same time he postulated that prices did not tend to coincide with unit economic costs or to decline in proportion to the falls in such costs in the case of the manufactures exported by the centres, because the income elasticity of demand for those products was greater than unity.⁴¹

⁴¹ "Theoretical and practical problems of economic growth" (E/CN.12/221).

Thus this difference between average prices and unit costs with regard to each specific level of rising labour productivity led to the 'closed' appropriation of part of the benefits of technical progress, either by the owners of the factors of production, or by the exporting enterprises in the centres.⁴²

The concept of the surplus now proposed by the same author cannot be considered independently of this background.

At the end of the 1940s these reflections led him to adopt an unorthodox and controversial position concerning the comparative advantages derived from the international division of labour which began to take shape with the industrial revolution. These same concerns, now viewed from a different angle, are now reflected in an equally unorthodox and controversial approach to the concept of the economic surplus.

⁴² "The academic discussion, however, is far from ended. In economics, ideologies usually tend either to lag behind events or to outlive them. It is true that the reasoning on the economic advantages of the international division of labour is theoretically sound, but it is usually forgotten that it is based upon an assumption which has been conclusively proved false by facts. According to this assumption, the benefits of technical progress tend to be distributed alike over the whole community, either by the lowering of prices or the corresponding raising of incomes". Raúl Prebisch, "The economic development of Latin America and its principal problems", *Economic Bulletin for Latin America*, vol. VII, N.º 1 (February 1962), p. 1.

In both cases he deals with the fact that average prices and unit costs fail to coincide or to behave symmetrically, and with their influence on the distribution of the benefits of the growing productivity of human labour.⁴³

Now, this phenomenon has been considered a temporary 'anomaly' because it clashes with two fundamental aspects of the prevailing economic approaches. The first is the claimed tendency of the economic system to assume positions of stable equilibrium; the second relates to the prevailing theories of value, either in their subjective marginal utility version—specific to the neo-classical liberal school—or in the classical and Marxian labour theories of value.

However, the view of capitalist development which is implicit in Prebisch's theory regards this discrepancy between prices, costs and productivity levels as structural in nature and inherent in the logic of the system. Hence general disequilibrium is the very nature of the system, and a *necessary* requirement for its survival. *More precisely, it is a condition for the existence of macro-economic profit.*

Notwithstanding the affirmations of the neo-classical economists, macro-economic profit is the central category which must be explained in the interpretation of capitalist development. Any model or paradigm which does not succeed in explaining profit will have left aside both the basic *motivation* driving the system and the essential source of the process of accumulation. This applies to the static model of perfect competition which, in conditions of stable equilibrium, reaches the conclusion that profit is nil. In short, for the neo-

classical school the tendencies towards positions of stable equilibrium mean that the incomes of the factors rise (or that prices fall) *pari passu* with rises in productivity and permit the appropriation of the benefits of technical progress by a broad spectrum of society, eliminating any surplus whose existence and manner of appropriation would call in question the equity of the system.

The labour theory of value also assumes positions of stable equilibrium. Prices are proportional to values, and changes in values are inversely proportional to rises in productivity. Under the 'law of value', goods are exchanged in quantities proportional to their abstract labour content. For Marx, the existence of a surplus results from a phenomenon of exploitation which is based on his theory of value, and is perfectly compatible with a situation of general equilibrium in all markets. What is more, his theory makes it obligatory to proceed from this situation of general equilibrium, as a proof that the surplus is a phenomenon arising from exploitation.

In short, the predominant theories of value are valid only in stable conditions of general equilibrium.

However, in such conditions the theories do not account for the *essential* condition for the existence of capitalism as a *viable* economic system: that the macro-economic profit should be positive in value.

Until our static and 'economistic' approach to the mechanics of the process of attributing value⁴⁴ is suitably modified, it will not be possible to understand the theoretical significance of the solutions proposed by Prebisch for the recurrent discrepancy between prices and productivity level.

The concept of the surplus retained by the enterprises which Prebisch postulates is dynamic because its very existence, in the form of macro-economic profit, depends on the mechanisms which make its appropriation possible and which can only be understood through a dynamic analysis.

⁴³ Prebisch distinguishes between two sources of possible changes in *total* unit costs: those which derive from a change in productivity, assuming stability in the unit price or income received by the owners of factors of production—and especially workers—and those which derive from changes in these real incomes. If the unit incomes of the factors remain stable, the rise in real productivity will automatically be shifted to costs, which will fall proportionately. If incomes rise at the same time as productivity, unit prices will not fall. Hence "if, in spite of greater technical progress in industry than in primary production, the price relation has moved against the latter instead of in its favour, it would seem that the average income, per capita, has risen more in industrial centres than in the producer countries of the periphery". *Ibid.*, p. 6.

⁴⁴ We refer here to the process whereby a unit price is attributed to the goods which are traded in the market.

And this dynamic approach brings us to the need to reconsider some basic macro-economic magnitudes.

Within each period considered, the value of the income which is generated is *not equal to the total cost of the product being offered for sale*. The difference between the two is, precisely, the entrepreneurial surplus.

Income measures a potential product or productive power which has been *constituted* but not yet *consumed or realized*; the product measures a real volume of final goods which are for sale, each valued at unit cost. However, the two magnitudes are compared during each period, and from their comparison stems the entrepreneurial surplus. Once the goods are realized the product, now including the macro-economic profit, is the same as the income.

Before realization, the total value of the product being offered for sale is equal to its cost of supply, and corresponds to the incomes paid for its manufacture.

In the circumstances of a development process, which are those of interest to Prebisch and those which are historically significant in the analysis of capitalism, labour power is constantly supplying a *potential quantum* of output which is higher than the *real 'quantum'* it can acquire with the incomes derived from that transfer.

Marx would apply the term 'exploitation' to this phenomenon, arguing that the value of the labour power is lower than the value of the products of the labour performed by it. He would consider the difference as surplus value, and would explain it on the basis of his labour theory of value, which is essentially static.

When Prebisch encounters the same phenomenon, he elaborates a *radically different* explanation. This explanation is not compatible with any of the theories of value currently in contention in the field of economic thought. In order to understand this radical change of perspective fully, it is necessary to start from the concept of *purchasing power*.

Within each period, entrepreneurs use the money they control—their own or borrowed money—in order to buy commodities from one another and acquire the services of the owners of factors of production. The money thus used

behaves like capital.⁴⁵ This generates two effects which occur successively. Firstly, within the same period monetary incomes are generated which are the counterpart of a *potential product* that will exist only in subsequent periods. Secondly, during subsequent periods the final goods emerge which are the counterpart of those monetary incomes, which have already been generated and spent.

If we now replace our diachronic approach by a synchronic one, we shall see that the income generated *within* each period fulfils two functions. The first is to measure the purchasing power of the money-capital spent by the entrepreneurs in order to secure the use of the factors of production. The second is to measure the purchasing power of the income received by the labour force and the owners of the factors of production. When this money leaves the coffers of the entrepreneurs for the pockets of wage earners and the other owners of factors of production, it constitutes the use of capital and also *the generation of income*. The *purchasing power of this use of capital is measured with respect to the quantity and price of the factors of production whose services have been acquired*. When it immediately⁴⁶ leaves the pockets of the recipients of incomes (wage earners, rent recipients, and so on) for the purchase of final products, it becomes a use of income or final demand. The *purchasing power of this use of monetary income, or final demand, is measured with respect to the quantity and price of the final consumption goods acquired*.

A single monetary magnitude thus links together, within a single time period, two real magnitudes: that of the purchasing power of the working capital spent to secure the use of the means of production, and that of the purchasing power of the income used to express demand for final consumption goods.

Now, if we are in a situation of expansion, with growth in employment, and if we assume

⁴⁵ That is, capital in the form of money, which is applied directly to production through the acquisition of means of production or the right to use them.

⁴⁶ Here we assume that there are no gaps in effective demand and that the entire income is converted into final demand within each period under consideration.

that today's production will be tomorrow's supply, the growing total monetary incomes which are paid to the owners of the factors of production, and in particular to wage-earning workers, when immediately spent, encounter supply whose overall cost is lower than that of the incomes. The difference constitutes the entrepreneurial surplus, whose value is the macro-economic profit.

Prebisch's theory concerning profit and the entrepreneurial surplus had already been vaguely sensed and outlined by a representative of utopian or pre-Marxist socialism.⁴⁷ Both the classical economists and Karl Marx, in discussing value and surplus value, eliminate explicit consideration of the time factor and modify the nature of the reasoning. In addition, their traditional contempt for monetary phenomena, which they felt obscured reality, prevented them from adopting the dynamic view required in order to grasp this concept of the surplus.

Prebisch's reasoning explicitly reintroduces the time factor and is closer to the conception indistinctly perceived by Sismondi than to the classics or Marx. The idea developed in his two latest studies was foreshadowed in a short passage in the *Economic Survey of Latin America, 1949*, where he stated that: "It is obvious that the increase in income has its counterpart in the value of the goods and services the production of which yields this income". And he adds in a footnote: "This statement is theoretically incorrect, as in any process of increasing production the cash income is always greater than the value of the finished production".⁴⁸ In this way, as early as

⁴⁷ "A combination may arise, in opposition to land, of the other two sources of wealth: life, which makes work possible, and capital, which sustains it through the wage. When these two powers are combined they jointly possess a force for growth, so that the labour performed by the labourer this year is worth more than the labour of the previous year, with which the worker is supporting himself. Because of this appreciation, industry obtains a constant increase in wealth which can either form the incomes of the industrious classes or add to their capital". J. Simonde de Sismondi, *Nouveaux principes d'économie politique*, 2nd. ed. (France, 1827), quoted in Pedro Bravo, ed., *Socialismo Premarxista* (Caracas, Universidad Central, Instituto de Estudios Políticos, 1961), pp. 72-73. (Emphasis added.)

⁴⁸ *Economic Survey of Latin America, 1949* (United Nations publication, Sales No. 1951.II.G.1), p. 10.

1949, though not explicitly, he looks forward to the machinery for the appropriation of profit.⁴⁹

Another Latin American structuralist, Celso Furtado, took up the same idea without developing its theoretical implications, although he outlined it fairly precisely. Furtado states that: "Taking an industrial economy as a whole, we find that within the value of each article sold are included the payments for all factors participating in its production. The price of a yard of cloth is basically the sum of the payments for labour (wages), capital (interest, rents, lease of land, etc.), and the entrepreneur (profit). In paying for labour and other factors in advance of sale, the entrepreneur carries out a credit operation: he is advancing a part of the value of a yard of cloth that is going to be sold in the future. On the other hand, when he sells his yard of cloth the entrepreneur gets back not only those payments he has already made but also an additional payment which constitutes the profit. Hence this additional payment amounts to a kind of credit operation in reverse: it is an amount of income incorporated into the value of the yard of cloth sold, and which remains in liquid form in the hands of the entrepreneur. *In other words, the profit coming into the possession of the entrepreneur is the counterpart of the value of other goods which are being produced and have not yet been sold*" (emphasis added).⁵⁰

Unfortunately, Furtado did not elaborate further on this idea, nor did he go deeper into its scope and dynamic implications, which are clearly related to Prebisch's reflections on the closed appropriation of the benefits of growing labour productivity.

Nevertheless, the subject is of vital importance, because profit and the surplus are given a dynamic interpretation which links them indissolubly to the theory of economic development.

⁴⁹ Prebisch's dynamic conception of the surplus is, so to speak, 'latent' throughout his discussion of the economic cycle and its influence on profits in the centre and the periphery.

⁵⁰ Celso Furtado, *Development and Underdevelopment*, trans. Ricardo W. de Aguiar and Eric Charles Drysdale (Berkeley, University of California Press, 1964), p. 111.

Without profit the very existence of capitalism is inconceivable, and profit cannot exist in static conditions, as is clearly shown in the neo-classical arguments which consider profit as a transitory phenomenon arising from a situation of imbalance.

In Marx, profit is a phenomenon of exploitation which is *theoretically* independent of the dynamic conditions characteristic of economic development. His theory, which is unassailable on the 'real' level, encounters insurmountable difficulties in the sphere of the realization of commodities.⁵¹

Prebisch's approach to the surplus helps to clarify the shortcomings in these theories, and enables us to draw greater benefit from their useful elements.

The macro-economic approaches adopted by Keynes, and particularly by Kalecki, made it possible to view profit as a *global magnitude* whose existence has to be explained. However, the *explicitly dynamic* nature of this explanation, and the *conditions and mechanisms* which permit the recurrent existence of profit at the macro-economic level, were not dealt with by those writers.⁵²

Prebisch clearly faces up to this task, which falls within the context of his more concrete and comprehensive concerns relating to the development of Latin America. He makes his reflections at a time when the theory of general equilibrium has reached a *cul-de-sac*, and when this fact is beginning to be recognized in the Western academic world.⁵³

VII

The distribution of technical progress and its benefits

1. Background

Both the liberals —classical and neo-classical— and the Marxist school have endeavoured to establish a strict relationship between technical productivity and prices and incomes. Firstly, they have assumed that it is possible to *attribute* to the participants in the process of production specific shares in the product which derive from their personal contributions. Secondly, they have postulated that *the economic system as such* remunerates the par-

ticipants in the process of production with an amount of income which has a significant relationship with that contribution from an ethical point of view. Thirdly, the ethical aspect of this relationship between productivity and income is regarded as *inherent in the logic of the system* and, for the Marxists, accounts for its intrinsic wickedness, while for the neo-classicists it stands behind the equity inherent in the innermost logic of its operation. Fourthly, the resulting recommendations for action are, on the one hand, the radical transformation —generally by revolutionary means— of an essentially pernicious economic system or, on the other, the elimination of the institutional or technical obstacles which make it difficult for a fundamentally equitable economic

⁵¹ It is true that the rate of relative surplus value tends to grow as a result of a rise in the productivity of labour engaged directly or indirectly in producing means of subsistence for workers, which is undoubtedly a phenomenon of development. But Marx's explanation, we repeat, is *static* because it takes no account of *explicit* time lags between the spheres of production and circulation. Moreover, surplus value in Marx *can* exist even if total employment, output and incomes are not growing, while for Prebisch the expansion of current incomes is a necessary condition for the existence of a surplus. Finally, for Prebisch the surplus arises from a global macro-economic disequilibrium, and is then distributed among the various economic activities. All this is viewed from a macro-economic angle.

⁵² Kalecki has penetratingly examined more or less related issues, such as the effect of a general rise in wages on rates of profit. See "Class struggle and the distribution of national income", *Kyklos* (Basle), vol. XXIV (1971), fasc. I, pp. 1-9.

⁵³ Nicholas Kaldor, "What is wrong with economic theory", *Quarterly Journal of Economics*, vol. LXXXIX, No. 3 (August 1975), p. 347.

system to achieve optimum levels of equilibrium and welfare.

Now, one of the objectives laid down for this article was to suggest that no such strict relationship exists between technical productivity and prices and incomes. Firstly, because it is not possible to identify the contribution of each factor of production to the product. Secondly, because even were such identification possible, that would not automatically imply a 'merit' which, from the ethical viewpoint, would justify the attribution of that part of the product to the owner of the factor. Thirdly, the logic of the capitalist system is such that the payments received by the owners of factors of production are not strictly derived from the contribution of those factors to production, but from the *combination* of *technical* factors in the sphere of productive power with *social* factors in the sphere of purchasing power. Fourthly, intrinsic virtues or vices cannot be attributed to the market mechanism. It is an impersonal mechanism which expresses in terms of value—general purchasing power—the distribution and use of the forms of power which stem from the social structure.

We will now endeavour to elaborate on these propositions somewhat more fully.

Our starting point is to deny that a strict relationship can be established between the technical productivity of a factor of production and prices and incomes generated. We have already seen, following Prebisch, that there is no symmetry in the behaviour of prices and technical or real productivity levels at the level of each unit of production. This is due to the fact that the income elasticity of *monetary* demand for a good depends on certain basic regularities in the behaviour of consumers which lead to asymmetrical expansion in the structure of their 'baskets' of consumption. However, these asymmetrical orientations cannot be understood or formulated without prior knowledge of the distribution of monetary income. Strictly speaking, the causal relationship is more complex, and takes the form of the existence of *economic* and not merely *technical* productivity which is expressed in units of purchasing power.

While changes in prices do not symmetri-

cally reflect changes in productivity, changes in total unit costs do not do so either. In fact, costs can vary for *technical* reasons—changes in needs for a factor of production per unit of product—or for *economic* reasons—changes in the incomes received by the owners of the factor as a result of changes in their purchasing power. These changes in relative purchasing power in turn reflect the complex power relationships which derive from the social structure. This is clearly incompatible with the theories of value formulated on the basis of positions of general equilibrium.

In the case of the marginal utility school, equilibrium and full employment are assumed in conditions of perfect competition. Consequently, the production function *necessarily* reflects the relative provision of the factors of production, since all available factors are occupied. To ensure the logical consistency of this fiction a number of assumptions are necessary, including the assumption of perfect technical substitutability of one factor of production by another. *Consequently, the technical phenomenon is successfully reconciled with the economic phenomenon.* Firstly, according to the technical law of diminishing returns, or variable proportions, as the relative abundance of a factor increases, its contribution to the marginal product declines. Secondly, under the economic law of supply and demand, as the relative abundance of a factor increases, its price or remuneration tends to fall, and vice versa. The point of equilibrium is decided upon by entrepreneurs, who contract factors up to the point where the value of their marginal product is equal to their price. However, in a macro-economic production function, the stock of capital can only be expressed in *values*, and this act of attributing value to capital, understood as a factor of production, demands knowledge of the relative prices of capital goods. But at any moment in the economic process these relative prices of capital goods depend on the value of the product to whose manufacture they contribute. In this way, under the neo-classical approach, we have a tautological production function in which calculation of the value of the social product demands knowledge of the value of the inputs of capital goods, and calculation of the value of those capital goods demands

knowledge of the value of the social product.⁵⁴ This tautology shows that the economic process is not self-contained in its technical and mercantile relations, but that the value of the factors of production depends on the positions of power in the social structure occupied by those who control the factors, and these positions are reflected in the personal distribution of monetary income. The power relations which derive from those positions also determine the allocation of technical progress, which constantly modifies the productivity of the factors.

In the labour theory of value too, and especially in the Marxian version, the technical phenomenon is successfully harmonized with the economic phenomenon, but on the basis of very different reasoning.

Here we shall refer exclusively to Marx, because his argument enjoys particular recognition in extensive academic circles. Marx holds that the value of a good is equal to the amount of labour socially necessary in average technical conditions to produce it. Consequently, if we accept the equivalence in exchange postulated by the 'law' of value, prices will vary proportionately with values, and accordingly there will be open appropriation of technical progress and its benefits. The law of value operates only in conditions of general equilibrium; if prices fall more than proportionately compared with values, for Marx this will mean that an 'excessive' amount of social labour has been allocated to the production of that commodity.

In other words, when prices differ from values, we are in a situation of disequilibrium which is corrected through a reallocation of social labour. But in that case social labour is allocated *firstly* for technical reasons, and *secondly* for *economic* reasons. The technical reasons are related to the physical productivity of each specific process of production, which

determines the amount of labour—living and past labour— contained in each process. The economic reasons stem from the structure of relative prices, which cannot be dissociated from the composition of monetary demand or, consequently, from the distribution of nominal income.

Let us now assume that in a society with an income which is high per capita but exceptionally concentrated, the poor require larger quantities of bread. If increasing quantities of social labour are reallocated to bread production, prices will fall rapidly below values if the monetary distribution of personal income is such that the poor have no money to buy it.

In accordance with the law of the exchange of equivalents, society would seem to have allocated 'excessive' quantities of labour to the production of bread. Of course, demand is the expression of social needs backed by purchasing power, and possession of this purchasing power depends on the personal distribution of income. Consequently, the allocation of social labour which corresponds to general market equilibrium will vary with the distribution of monetary income. In short, given the technological structure of the economic system, the allocation of living social labour is a variable which is dependent on the distribution of monetary income.

Marx's entire theory of exploitation is *based* on technical and institutional factors and is *expressed* in units of social labour. And since, by definition, to work is to create value, the ethical postulate that the entire product *belongs* to the worker is derived almost 'unconsciously'. However, under the institution of private property the entire product belongs to the owner of capital. The rules of the game in the market lay down that commodities are sold for their value, and labour power is also sold for its value, which is equivalent to the amount of labour contained in the commodities it consumes. The crux of the matter lies in ascertaining how the value of labour power is determined. Marx recognizes that its real cost of production is conditioned by historical and moral factors. But to reproduce labour power is to reproduce its readiness to work; and this readiness to work to a certain degree reflects the purchasing power of capital and the structural

⁵⁴ Let us, for example, imagine a case of obsolescence. Equipment designed for the manufacture of black and white television sets has a different value *before* and *after* the introduction of colour television, depending on the behaviour of demand. But this demand will in turn react differently depending on the distribution of monetary income in the society.

changes in the power relations between classes. Here we return to our concept of the distribution surplus. In short, the distribution of purchasing power among social classes depends in part on the distribution of nominal income, and cannot be expressed as the mere result of processes of production calculated in terms of labour time.

We therefore arrive at the conclusion that the structure of relative prices of products depends on the technological structure on the one hand, and the distribution of monetary income on the other. The magnitude and orientation of changes in the technological structure and in the distribution of monetary income depend on complex power relationships which stem from the social structure.

Economists in the Latin American structuralist school understood this process fairly early on, and gave this interpretation concrete form in specific diagnoses of Latin American societies.

2. 'Monetary' and 'real' productivity levels

Within the Latin American structuralist school, this separation in the theory between productivity levels and incomes was proposed by Aníbal Pinto in his article on the concentration of technical progress and of its benefits.⁵⁵ It is necessary to reproduce his argument at length in order to permit subsequent comparison with other propositions deriving from the 'Prebischian' theory of the surplus.

"In order to throw light on the matter it is necessary to examine more closely the significance and origins of the rise in productivity, with a distinction drawn from the outset between the *real* and the *monetary* form of the phenomenon. The former would correspond to the situations where, as a result of innovations in the mode or forms of production, an increase occurs in the volume (or quality) of the goods created, and where these real changes form the background to the raising of the incomes of the labour force and the owners of capital. The

monetary form, in contrast, would be that in which the rise in payments for factors is independent of the greater material or actual yield from them, as a consequence of causes external to the production unit or sector under consideration.

"In order to illustrate the problem more clearly, let us cite a few extreme examples. First, let us imagine the case of a firm in which an innovating executive or a Stakhanovite worker establishes a new, more effective work routine which, *using the same resources*, makes it possible to increase the volume of goods which can be made available for the market. This will lead to greater real productivity of the factors, and also higher monetary remuneration —i.e., a higher income— if there is no offsetting decline in prices as a result of the increase in supply, or other interference which we shall rule out in this and the other examples.

"Secondly, let us imagine a firm which, because of a ban on the import of competing goods or an exchange rate devaluation, experiences an overnight rise in the prices of its products without any rise in its costs. In this case, even though there has been no change in their real yield, there will be an increase in the income of the factors, and this will be taken as a sign of a proportional improvement in productivity.

"Let us now consider a more complicated possibility: the case of a semi-public firm which is established with or benefits from State investment which enables it to attain a relatively high level of real productivity, with consequent high remuneration for the factors. This version combines the two aspects referred to above; nevertheless, it is clear that the situation is principally due to the public investment which has financed the acquisition of the equipment for use in production."

This argument contains two fundamental propositions. Firstly, that the structure of economic (or 'monetary', to use the author's term) productivity levels is, at least in part, a result and not a cause of income distribution; and secondly, that behind these changes in income distribution function complex power relations which are inherent in the dynamics of the social structure.

⁵⁵A. Pinto, "Concentración del progreso técnico y de sus frutos en el desarrollo latinoamericano", *El Trimestre Económico*, No. 125 (January-March 1965).

Since neither changes in incomes nor changes in prices are tied to 'real' movements in technical productivity, this makes it possible to introduce systematically the effects of the dynamics of the social structure on the structure and level of relative prices. The remainder of Pinto's argument deals with this specific issue.

The relatively independent effect of monetary demand has recently been highlighted by Prebisch. Its clear corollary is that movements in prices do not symmetrically reflect movements in technical productivity levels in the branch concerned, but the general trends of the economic process. At the same time, the roots of this asymmetrical behaviour should not be sought only in the monopolistic or oligopolistic situations which may be involved.

Prebisch's argument here complements and reinforces Pinto's, since he demonstrates that 'monetary' changes in productivity and the asymmetry between prices and productivity levels do *not* derive *only* from policy measures, or from power relationships which are 'external' to the economic process proper, but also from the use of the surplus which stems from actual global economic activity.

There is a passage in Prebisch which hints

at the basic logic needed to deal with this complicated question:

"It is sometimes maintained that if prices do not fall as productivity rises, this is due to the intervention of monopolistic or oligopolistic combinations which restrict competition, through customs protection, through patents or licences whereby competition is barred, or by other well-known means. This is not my interpretation. What is involved is simply the same phenomenon of the internal distribution of the total surplus. Widely different cases arise: prices which remain static or increase, despite exceptional improvements in productivity, or in the absence of any change in productivity at all. In all such instances, the monopolies or oligopolies appropriate a larger share of the surplus than they would otherwise have obtained.

"The conclusion is perfectly logical. Monetary expansion is brought about not by the action of these combinations which restrict competition, but by the growth rate of production as a whole. With such combinations appropriating a larger share than they would otherwise have had, a smaller share is left for other goods and services, owing to the corresponding shifts in demand".⁵⁶

VIII

Conclusions: theory and ideology

On the unsullied Olympus of some 'pure' theoreticians, the views of economists from the periphery are often regarded as lacking in rigour, or as broadsides incapable even of scratching the surface of the theory set out on more 'serious' foundations.⁵⁷

These foundations are, in the final analysis, those which underlie theories of value in static conditions of general equilibrium. We must therefore begin this section with a question prompted by a certain bewilderment: if the theories of value based on conditions of general

⁵⁶ Raúl Prebisch, "A critique of peripheral capitalism", *op. cit.*, pp. 39-40.

⁵⁷ I cannot resist reproducing a sample which distorts and crudely caricatures some structuralist ideas: "All that I find in Prebisch's study and in the other literature along similar lines emanating from the United Nations and elsewhere is the dogmatic identification of agriculture with poverty, and the explanation of agricultural poverty by inherent natural historical laws by virtue of which agricultural products tend to exchange on ever-deteriorating terms for manufactures, technological progress tends to confine

its blessings to manufacturing industry, and agricultural populations do not get the benefit of technological progress in manufactures even as purchasers, because the prices of manufactured products do not fall with the decline in their real costs. These natural laws seem to me for the most part mischievous fantasies, or conjectural or disorted history, or, at the best, mere hypotheses, relating to specific periods and calling for sober and objective testing." Jacob Viner, *International Trade and Economic Development* (Glencoe, Ill., Free Press, 1952), p. 62.

equilibrium do not help to explain the innermost nature of economic value or the concrete dynamics of the process of attributing value, then what purpose do they serve?

There is an answer to this question. The theories of value based on conditions of general equilibrium do not play a theoretical, but a 'practical' role as instruments for the scientific legitimation of a specific view of the world which justifies a 'praxis': they claim to justify in the field of analysis 'a pre-analytic cognitive act', as Schumpeter termed it. This is no reason to regard them as less 'scientific', since any theoretical structure in the social sciences must necessarily be founded on a 'vision' which is 'loaded' in value terms. This view of the world percolates into the discourse through the process whereby the basic concepts are defined.⁵⁸ The alleged objectivity to which Viner refers [see footnote 57] simply cannot exist in the process of *formulation of hypotheses* or, still more broadly, of the *basic questioning* which is the starting point for the analysis. Max Weber provided a particularly telling explanation of this essential point: "There is no absolutely 'objective' scientific analysis of culture—or put perhaps more narrowly but certainly not essentially differently for our purposes—of 'social phenomena' which is independent of special and 'one-sided' viewpoints whereby—expressly or tacitly, consciously or unconsciously—these phenomena are selected, analysed and organized for expository purposes".⁵⁹

Thus, for example, it must be intuitively obvious even to anyone completely ignorant of economic theory that the distribution of monetary income cannot be unconnected with the power relationships which stem from the social structure, and that it in turn exerts influence on the structure of relative prices and on the concrete process of attributing value. However, it was in the *notion of general equilibrium*, based on the analysis of 'real' magnitudes, that the

most widely held theories of value found solid common ground on which obvious scope for communication was established. Consequently, economic theory is only now 'rediscovering' this intuitively obvious fact. Thus Maurice Dobb observes, as one of the principal conclusions of his analysis of theories of value and distribution, that the structure of demand in the market can only be derived from the wishes, preferences or behavioural reactions of consumers, on the assumption that consumers have a specific amount of monetary income. Hence, he continues, implicit in the general process of price formation is an initial distribution of income between individuals, in the sense that this distribution must be included as one of the determinants of the structure of demand, from which all prices derive (including the prices of the factors of production); the whole process of price formation is related to this postulated distribution. In other words, concludes Dobb, a theory of distribution, if conceived as a theory of prices derived from productive services, cannot be independent of the initial distribution of income, as an essential premise.⁶⁰

Dobb then focuses his attacks on the neo-classical theory, and endeavours to 'absolve' Marx and the classical economists. However, they too omitted to ascribe due importance to monetary flows and the distribution of nominal income in the process of attribution of value.

At all events, Marx deserves special consideration, since his view of the world places power relationships and the struggle between irreconcilable social classes at the heart of his conception of the historical process. However, he performed the feat of combining this all-embracing view with a theory of value founded on conditions of general equilibrium.

When the concept of *stable equilibrium* is abandoned, the *validity* of those theories in *formal logic* does not disappear, but their practical importance does. Economic value ceases to be regulated by forces 'inside' the economic

⁵⁸ This does not mean that social science is 'a matter of opinion', since these views of the world ultimately generate hypotheses which are susceptible of empirical proof.

⁵⁹ Max Weber, "'Objectivity' in social science", in his collection of essays *The Methodology of the Social Sciences*, trans. Edward A. Shils and Henry A. Finch (Glencoe, Ill., Free Press, 1949), p. 72.

⁶⁰ Maurice Dobb, *Teoría del Valor y de la Distribución desde Adam Smith (Ideología y Teoría Económica)*, trans. Rosa Cusminsky de Cendrero (Mexico City, Siglo XXI, 1975), p. 47. The first English edition dates from 1973.

system itself (average social labour, or the marginal preferences of consumers), which bring it to equilibrium, and it becomes the expression of the power relationships which stem from the social structure. It is these power relationships which, in the final analysis, determine the criteria governing the distribution of technical progress and of monetary income.

As history shows without a single excep-

tion, human beings need to find a rational justification and an ethical legitimation for their behaviour. In order that these justifications and legitimations can be placed within an authentically humanistic perspective, at the service of *all* men in the full measure of their individuality, it is necessary to discover the hidden forms of power and show clearly the social responsibility of those who control its mainsprings.

The Peasant Economy: Internal Logic, Articulation and Persistence

*Alexander Schejtman**

Perception of peasant agriculture as a segment of the economy with its own logic, different from the capitalist type, is of relative recent date in Latin American literature on agrarian issues.

Until about 10 years ago, the predominant approaches were those which focused on dualisms or dichotomies (traditional-modern, pre-capitalist or feudal-capitalist, stationary-dynamic, and so on), and which made no reference as far as theory was concerned to the internal functioning of the so-called traditional or pre-capitalist alternative. Neo-classical agricultural economics, for its part, was limited to applying to the peasant economy a micro-economic paradigm which was identical to that of any other type of production unit.

In the present article the author endeavours to demonstrate the legitimacy and importance for theory of the concept of the peasant economy, incorporating in a single exposition the contributions of various writers on the subject.

A major part of the article is devoted to an analysis of the main features of the internal functioning of the peasant economy, in other words, the logic which governs decisions on resource allocation in that sector.

Following the analysis of this internal logic, it is contrasted with the logic characteristic of commercial or capitalist agriculture, and the position of peasant agriculture in the national economy is shown to be closely linked to the special kind of logic which governs its operation.

The article concludes with a brief analysis of the forces outside the peasant economy which work towards its break-up, recovery or persistence.

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Introduction

Until very recently, studies on economic development, agrarian structure and the agricultural economy in Latin America, whatever the school of theory to which their authors subscribed, failed to perceive peasant agriculture as a specific and distinct form of organization of production.

Under the approaches derived, to a greater or lesser extent, from nineteenth-century liberalism and the Ricardian school of political economy, the peasantry was a socio-cultural remnant of the past—whether termed feudal, pre-capitalist or traditional—destined to disappear fairly rapidly as a result of the growth of commercial agriculture and manufacturing; for that reason, it merited no more consideration as a form of production than that involved in analysis of the mechanisms which encourage or hinder its 'modernization'.

For neo-classical economists, the peasant family unit did not constitute a specific object of analysis as distinct from the agricultural enterprise (or, for these purposes, from any other production unit), since as far as the behaviour of the producer was concerned, the differences they observed could all be attributed to different scales of production and differences in the relative availability of factors. For that reason, decisions concerning what, how and how much to produce were considered to be governed, in both cases, by the tendency for the ratio between the marginal productivity and the price of each of the 'factors' used to become uniform; in other words, the allocation of resources was governed by a single type of operating logic.

The persistence of the peasantry—or, more precisely, the fact that the substantial fall in numbers forecast by political economy seems unlikely to occur within a time scale of significance for social analysis and for the formulation of development strategies—as well as the inability of neo-classical analysis to account for a number of salient features of the behaviour of the peasant producer,¹ have led in the past decade to the emergence of an extensive literature devoted to re-examining the

¹Reference is made to several of these features in section 1.1.

terms in which the peasant question has traditionally been tackled in economic analysis.

Two landmarks may be observed in this process of re-examination. First, a number of critiques have been made since the mid-1960s of the dualist propositions of various schools of thought, both those founded on the traditional-modern dichotomy and those drawn up in terms of the dichotomy between feudalism and capitalism. Second, a tendency has emerged to analyse the peasant economy as a *sui generis* form of organizing production, based on the 'rediscovery' of the writings of the so-called 'Russian populists' of the 1920s, and particularly those of A. V. Chayanov and his Organization of Production school.²

The criticism of dualism was a factor in the abandonment of the view of peripheral societies as split into two sectors: the traditional, pre-capitalist, semi-feudal or feudal sector, regarded as a relic of a colonial past, and the modern, dynamic or capitalist sector, whose task was to 'absorb' and transform the former in its image and likeness.

In opposition to this approach there arose the view that both sectors had been formed by a single historical process, and that they were articulated within a global whole of which both formed an integral part, each accounting for the other. This involved abandonment of the idea of backwardness, and implicit or explicit acceptance of the possibility that peasant forms

might persist or even be created as part of a dynamic of capitalist development.

The second of the landmarks mentioned earlier—the study of peasant economy, which is also the fundamental purpose of this article—represents an effort to study an important part of the peripheral economies which, having been described as 'traditional', had suffered from neglect in analysis or had simply been assimilated to a single allegedly universal rationality corresponding to that of the 'maximizer' of the neo-classical type.

The central part of the present article falls within the context of this latter objective. It constitutes an attempt to combine in a single formulation the contributions of various writers to describing the peasant economy, in an effort to demonstrate both the theoretical legitimacy and the empirical importance of this conceptualization in the formulation of development strategies for countries with a substantial peasant sector.

In addition to analysing the peasant economy as a specific form of organizing production—the principal purpose of the article—we shall in the second part sketch the contrast between the main features of peasant agriculture and those characteristic of commercial or capitalist agriculture. The article concludes with a few considerations on the nature of the insertion or articulation of peasant agriculture within the economy as a whole.

²The impact of Chayanov's writings on Western literature made itself felt surprisingly late, even though one of his articles, containing the most important part of his contribution to theory, was published in 1931 by the University of Minnesota Press in a group of papers edited by P. Sorokin, C. Zimmerman and C. Galpin (A. V. Chayanov, "The Socioeconomic Nature of Peasant Farm Economy", in *A Systematic Source Book in Rural Sociology*). Nevertheless, neither anthropologists nor economists seem to have become aware of Chayanov's importance until the mid-1960s. Eric Wolf, who quotes the text mentioned above, was one of the first to take up the essence of Chaya-

nov's argument, in his book *Peasants* (New Jersey, Prentice Hall, 1966) (pp. 14 and 15). In the same year, D. Thorner, B. Kerblay and R.E.F. Smith published—in addition to a biographical analysis of the writer and an assessment of his contributions to theory—two of his most important works (see A. V. Chayanov, *The Theory of Peasant Economy* (Richard D. Irwin, Inc., Illinois, 1966)). It was after the publication of this book that Chayanov's work became widely known both in the English-speaking world and in Latin America.

I

The Specific Characteristics of the Peasant Economy

The concept of the peasant economy encompasses that sector of domestic agricultural activity in which family-type units engaged in the process of production with the aim of ensuring, from one cycle to another, the reproduction of their living and working conditions, or, to put it another way, the reproduction of the producers and the unit of production itself. Achieving this objective means generating, firstly, the means of subsistence (biological and cultural) of all members of the family, active or not, and secondly —over and above those needs— a fund designed to pay for the replacement of the means of production used in the production cycle and to deal with the various eventualities which may affect the existence of the family group (illness, expenses for formal occasions, and so on).

The operating logic applied to the productive resources available, in other words the logic which governs the decisions concerning what, how and how much to produce and what to do with the product obtained, falls within the framework of the objectives described above, and gives the peasant economy its own rationality which is distinct from that of commercial agriculture. The latter, in contrast, decides what, how and how much to produce in such a way as to maximize rates of profit and accumulation. In this regard, then, we would appear to be faced with two specific and distinct forms of social organization of production.³

³We shall speak here of forms of organization of production (or, more briefly, forms) in order to avoid a debate on whether or not the peasant economy is a mode of production in the sense in which the term is used in historical materialism. Although such a debate might be of importance as regards some of its theoretical implications, it is not germane to the purposes of the present article, which are limited to showing that what is involved is a form of production which is different from the commercial form and is governed by its own rules. Those interested in the debate can consult, for example: R. Bartra, *Estructura agraria y clases sociales en México* (Ed. Era, Mexico City, 1974), who considers peasant agriculture as a simple market mode. This view is shared by M. Coello, "La pequeña producción campesina y la ley de Chayanov", *Historia y sociedad*, No. 8, Mexico City, 1975. J. Tepicht, *Marxisme et agricul-*

If one postulated the existence of a universal rationality as regards criteria for the allocation of resources, and if one considered that differences in behaviour between the various types of unit should be attributed exclusively to differences of scale and of resource availability, one would have to classify as purely 'irrational' a number of basic, recurrent and empirically observable phenomena in areas where the peasant economy prevails.

By way of illustration we might mention some of these phenomena, which point to the existence of a specific peasant rationality different from the commercial rationality.

An evaluation of the economic results achieved by peasant units over one or more cycles, using conventional 'factor cost' concepts, will show in the vast majority of cases that these units systematically incur losses. In other words, when the costs of this type of unit are evaluated, using market prices to impute land rent, current wages to estimate the cost of family labour used and market prices to impute

ture: le paysan polonais (Paris, A. Colin, 1973), pp. 13-46, regards it as being a mode in its own right. A. Warman adopts a similar position in ... *Y venimos a contradecir* (Mexico City, La Casa Chata, 1976), chap. VI.

Among the critics of the "mode of production" approach, see H. Bernstein, "Concept for the Analysis of Contemporary Peasantries" (mimeo, to be published shortly in M. J. Mbiling and C. K. Omari, *Peasant Production in Tanzania*, University of Dar es Salaam) or, following a different argument, G. Esteva's article "La economía campesina moderna" (photocopy supplied by the author), 1979. In P. Vilar, "La economía campesina", *Historia y sociedad*, No. 15, Mexico City, 1977, we find a notable critique of the validity of the concept of the peasant economy. The *Journal of Peasant Studies* (JPS), London, has published a large number of articles on the subject of the peasant mode (or form); see, for example: J. Ennew, P. Hirst and K. Tribe, "'Peasantry' as an Economic Category", *JPS*, vol. 4, No. 4 (July 1977); M. Harrison, "The Peasant Mode of Production in the Work of A. V. Chayanov", *JPS*, vol. 4, No. 4 (July 1977); D. E. Goodman, "Rural Structure, Surplus Mobilization, and Modes of Production in a Peripheral Region: The Brazilian North-East", *JPS*, vol. 5, No. 1 (October 1977), and C. D. Scott, "Peasants, Proletarianization and the Articulation of Modes of Production: The Case of Sugar-cane Cutters in Northern Peru, 1940-1969", *JPS*, vol. 3, No. 3 (April 1976).

the value of inputs which are not purchased in the market, with monetary costs actually incurred being added to this total, and when in valuing the product the goods sold are added to those consumed on the spot, valued at market prices, the difference between the value of the product and the cost thus calculated is very often negative. This type of result, which would seem to suggest that "half of mankind is today engaged in productive activity which registers a continuous deficit, is, nevertheless, a sort of *reductio ad absurdum*"⁴ and constitutes "an instructive example not of the stupidity or philanthropy of peasants, but of the mistakenness of the belief that there is only one economic rationality in all places and at all times"⁵.

The ability of peasant units to sell their livestock at prices which would in many cases signify losses (even with respect to his current costs) for an efficient commercial producer further testifies to the existence of two different ways of valuing resources and products in the two types of economy.

Another phenomenon of this type may be observed in the readiness of the peasant tenant to pay rents (in cash or in kind) which are generally higher than those prevailing in capitalist forms of letting, without any non-economic pressure necessarily being applied. In neo-classical terms, one might say that the peasant is prepared to pay as land rent more than the estimated value of the 'marginal product of the land' or, in the case of purchases of land, to pay for it more than the value of the expected rent, discounted at the internal rate of return on capital which encourages an entrepreneur to invest.⁶

Similarly revealing is the presence in some areas of peasant units which, while possessing productive resources in similar quantities or proportions, cultivate their land with different

levels of intensity.⁷ This would appear to reveal inefficient or irrational practices on the part of some of these producers, who would seem to have rejected voluntarily an economic 'optimum' of the neo-classical type. The same judgment would apply to situations of multiple cropping (or multiple activity), or where staple products occur exclusively despite the possibility of increasing the product through specialization or through inclusion of commercial products involving speculation or risk.

The examples given above are far from exceptional in areas of peasant agriculture, and by no means exhaust the number of empirical observations suggesting the existence of a type of rationality which is distinct from the commercial rationality and is determined by factors of a historical and structural nature, both within and outside the units of production, which will be examined below in some detail.

1. *The family-based nature of the production unit*

The peasant unit is at the same time a unit of production and a unit of consumption where household activity is inseparable from production activity. In this unit, decisions relating to consumption are inseparable from those which relate to production, and when production is embarked upon little or no use is made of (net) wage labour. This characteristic, which provides an explanation for many others, has been recognized as being of central importance by all writers who have dealt with the subject of the peasant economy; they have even pointed out that, in many cases, the nuclear or extended nature of the family is an integral part of a production strategy for survival.

As early as 1913 studies may be found which highlight the phenomenon mentioned above and define peasant units as "consumer-labour enterprises, with the consumer needs of the family as their aim and the labour force of the family as their means, with no or very little

⁴W. Kula, *Théorie économique du système féodal*, quoted by R. Bartra, *op. cit.*, 1973, p. 36.

⁵J. Tepicht, *op. cit.*, 1973, p. 36.

⁶A. Schejtman, "Elementos para una teoría de la economía campesina: pequeños propietarios y campesinos de hacienda", *El Trimestre Económico*, vol. XLII(2), No. 166, Mexico City, April-June 1975; republished in *Economía Campesina* (Lima, DESCO, 1979).

⁷In areas where the amount of land is very limited, this phenomenon may not be manifested very clearly. However, when the peasant unit faces no major limitations on its choice of desirable scales (as in the humid tropics, or in areas with extensive stretches of previously unfarmed land which has not yet been appropriated by large landown-

use of wage labour”⁸ T. Shanin, one of the classics of rural sociology, regards the peasant unit as “characterized by a nearly total integration of the peasant family’s life and its farming enterprise. The family provides the work team for the farm, while the farm’s activities are geared mainly to production of the basic consumption needs of the family plus the enforced dues to the holders of political and economic power”⁹ J. Tepicht shares this view: “in our model the grounding in the family signifies a symbiosis between the agricultural enterprise (*ferme*) and the household economy (*ménage*)”¹⁰ Chayanov states that “in the family economic unit, which makes no use of hired labour, the composition and size of the family is one of the main factors in the organization of the peasant economic unit”¹¹

The division of labour within the family unit is effected on the basis of differences of age and sex, and is frequently governed by custom as regards men’s work and women’s work. The implications of this attitude to work are analysed below.¹²

2. *The irrevocable commitment to the family labour force*

The entrepreneur can regulate the labour force in his unit of production at will —if we leave

ers), differences of scale may be observed which cannot be explained in terms of the availability of other complementary resources (labour force, tools, and so on) but must be attributed to objectives different from those which enter into the definition of economic ‘optima’.

⁸T. Shanin, “A Russian peasant household at the turn of the century”, in T. Shanin, ed., *Peasants and Peasant Societies* (Harmondsworth, Middx., Penguin, 1971), p. 30, quoting a Russian encyclopaedia published in 1913.

⁹*Ibid.*

¹⁰Tepicht illustrates this by citing a region of Algeria (Zeribe) where a study of “the joint property type” (of the old extended families) indicates an almost complete absence of ‘mixed’ situations of joint production activity and separate kitchens, or vice versa. Either the couples join together in work in the fields and at the table, or they separate and become modernized both in the fields and at the table (even if they live under the same roof). *Op. cit.*, pp. 23-24.

¹¹Chayanov, 1974, *op. cit.* Chayanov even comes to see in the family structure (size, ages, sexes) the principal element of economic differentiation; we do not share this view, as is indicated below at the beginning of the section on differentiation.

¹²The great flexibility which may be observed in this

aside legal restrictions—as the market dictates. In contrast, the head of the family in a peasant unit takes as his starting point the family labour force available and has to find productive employment for all its members. S. H. Franklin, in an important study on the European peasantry¹³ highlights this commitment as the central feature of the peasant unit: “The head of the peasant unit (*chef d’entreprise*) lacks the freedom of action (of the capitalist entrepreneur) to regulate the labour force. His labour force is made up of his relations (“kith and kin”) ... and engaging and dismissing them in accordance with the dictates of some external regulatory mechanism would be at once inhuman, impractical and irrational. Inhuman because only in exceptional circumstances is it possible to find alternative job opportunities. Impractical because the members of his labour force, as members of the family, have a right to a share in the ownership of the means of production ... Irrational because the objectives of the undertaking are first and foremost genealogical, and only secondarily economic, since the task of the “*chef*” is to maximize the labour input rather than profit or any other indicator of efficiency”¹⁴

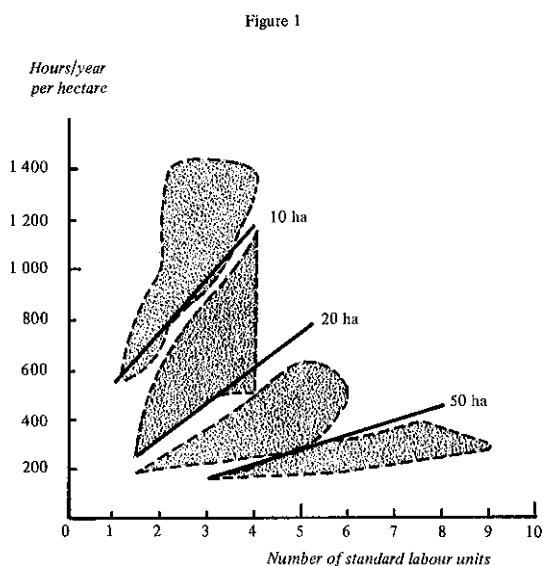
The graph below clearly shows the implications of this feature, as well as others which will be referred to below, but which Franklin seems to have missed.

The shaded areas in the graph include sets of observations on the intensity of labour (hours per year per hectare) for units of different area with different numbers of standard labour

symbiosis between the undertaking and the family is illustrated by A. Warman with reference to the Zapata period: “as access to the land controlled by the *hacienda* became more difficult, the extended family gained strength as the most efficient unit for securing an independent supply of maize and raising wage incomes to cover subsistence for the peasants. It was the only form of organization which made it possible to survive and maintain the men in fighting condition”. *Op. cit.*, 1977, p. 307.

¹³S. H. Franklin, *The European Peasantry* (London, Methuen, 1969).

¹⁴The expression “maximize the labour input” is ambiguous; strictly one should speak of maximizing the input of *productive* labour, that is, labour which generates increases in net income, and not labour in general.



Source: S.H. Franklin, *op. cit.*, p. 17, where he cites the results of a field study by Van Deeren (1964).

units.¹⁵ The ranges should be read as follows: the (shaded) upper set includes observations on units covering less than 10 hectares; the next on units of between 10 and 20 hectares, and so on until the last, which includes observations on units covering more than 50 hectares.

It may be noted that what Franklin calls the “labour commitment of the *chef d’entreprise*” is reflected in the fact that, for a given range of areas, there is a tendency to raise the number of working days per hectare as the number of labour units increases. In contrast, what is not given sufficient prominence by Franklin is that for each level of size and number of labour units there is a whole range of labour intensities per hectare which tends to be broader as the size of the unit declines. This, as we shall see below, suggests that among the units in a single area category and with the same number of labour units, the number of consumers per labour unit may vary.

3. Labour intensity and Chayanov’s Law

The intensity with which factors are used—given a certain availability of factors and a

certain technological level—is determined by the degree to which requirements for the reproduction of the family and the unit of production, including debts or undertakings to third parties, are met.

Generally, and all other things being equal, there will be a tendency to intensify labour as the ratio of dependents to labour units rises. In other words, for equal resources (land and means of production), the number of working days per hectare will tend to rise with the ratio between consumers who have to be supported and family labour available. On the other hand, if the amount of land available increases, the number of working days per hectare will tend to fall, all other things being equal. In this regard, it may be said that within the technology range characteristic of the peasant economy, the dominant form of substitution is between land and labour (operating in both directions), in contrast to commercial agriculture, where the dominant substitution is that which tends to occur between capital and labour and between capital and land.¹⁶

The ‘rules’ for intensification mentioned above can be represented more clearly using a simplified graphic model (Figure 2)¹⁷ where resources (land, means of production, labour force, and so on) and technology are of a given magnitude and are common to all the family units represented, with variations only in the number of the consumers which each unit must support. These consumers are represented in terms of an ‘average consumer’, in standard consumer units (U_c) into which the different age and sex groups of the family members have been converted. This variable (U_c) is represented in the graph as a downward projection of the horizontal axis. The horizontal axis proper (U_c) indicates the available family labour, standardized and expressed in man-hours per year.

If we assume that available working days are greater than \overline{OY} , which is the point of greatest intensity (or the point where the marginal product of labour, measured in terms of grain, would become zero), the minimum point of intensity (man-hours per year per unit of area)

¹⁵We assume that “standard labour units”, which is the variable used by Franklin, implies that the various categories of worker in the unit have been reduced to a homogeneous unit, using criteria which are unfortunately not clear.

¹⁶J. Tepicht, *op. cit.*, pp. 24 and 26.

¹⁷Taken from A. Schejtman, *op. cit.*

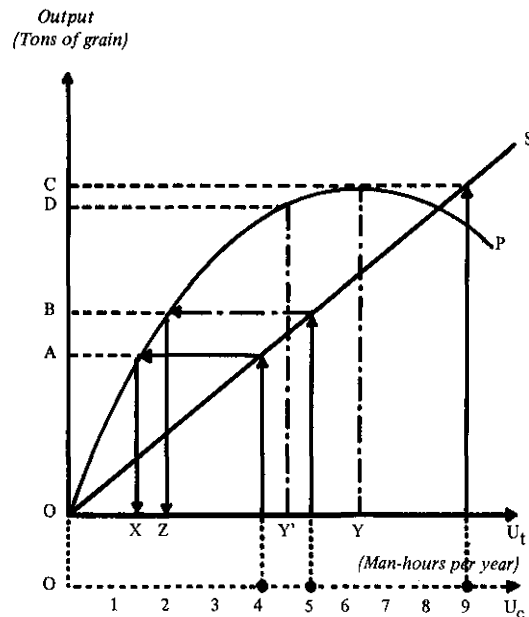
will depend on U_c , increasing in the same direction as U_c . For $U_c = 4$, the hours of labour will be \overline{OX} ; for $U_c = 5$ they will rise to \overline{OZ} , and so on up to \overline{OY} for $U_c = 9$, where the minimum intensity required and the maximum intensity possible will coincide.

In this case ($U_c = 9$), the product required to satisfy consumption by this unit is equal to \overline{OC} , which is the maximum possible in the light of the land, means of production and technology available. For all the other cases ($U_c \leq 8$) the minimum acceptable intensity would be determined, in the sense, for example, that a family with $U_c = 4$ has to perform at least \overline{OX} working days; but beyond this point, and up to \overline{OY} , determination of the specific level of intensity — what Chayanov calls the “self-exploitation of the labour force” — would be established on the basis of the ratio between the satisfaction of needs which exceed minimum needs and the shortage of additional labour required to meet

them.¹⁸ It is unnecessary to point out that when resources are insufficient ($U_c > 9$ in the example), not only will the intensity used be the maximum possible, but in addition it will be necessary to seek additional employment in order to secure an income which will ensure the reproduction of the family and the unit of production, or else face its deterioration or break-up.¹⁹

Since in general the situation of peasant units is at or near the point of maximum intensity, the margin for subjective considerations regarding the marginal utility of products and the marginal disutility of effort, which are of central importance in Chayanov’s argument, is narrow enough to be irrelevant in practice and to permit determination of the level in terms which lead one to consider that the peasant unit tends to seek to raise its income as much as possible, regardless of the effort involved.²⁰ “In contrast to the capitalist, who does not commit funds if he is not assured of a rate of profit at least in proportion to them, and also in contrast to the wage earner, who for each hour of overtime will demand as much as, or more than, he demands for ordinary working hours, the ‘personnel’ of a family farm are prepared to contribute additional labour to raise their overall income, which [given the operation of the law of diminishing returns - A.S.] will be remunerated at a lower price, reducing the average value of their collective ‘pay’ ”²¹

Figure 2



\overline{OM} = Consumption requirements per consumption unit.
 \overline{OS} = Function of family consumption requirements = $\overline{OM} \cdot U_c$
 \overline{OP} = Production function = $f(U_t, T, MP)$ where:
 U_t = man-hours per year of labour performed ($U_t \leq \overline{OY}$)
 T = constant arable area
 MP = means of production and technology (given and constant)

Fuente: Schejtman, A., *op.cit.*, 1975.

4. The partially market-oriented nature of peasant output

Peasant economy ceases to be a ‘natural’ economy, or one of on-the-spot consumption, or self-sufficiency, from the moment when a vary-

¹⁸A. V. Chayanov, *op. cit.*, 1974, p. 84.

¹⁹A. Warman (*op. cit.*, 1976, p. 326) sets out this ‘law’ as follows: “Once subsistence requirements have been met, the peasant stops producing. Firstly, the diminishing returns from the more intensive activity mean that any additional income over the subsistence minimum demands a disproportionate increase in activity. Secondly, incorporation in the capitalist market means that any rise in income leads to a rise in the transfer of surpluses”. Warman also introduces the problem of subordination, to which we shall refer below.

²⁰J. Tepicht, *op. cit.*, p. 41.

²¹*Ibid.*, p. 35.

ing proportion of the material requirements for its reproduction, whether inputs or final consumption goods, must be acquired in the market, using money. For this purpose, the family unit is forced to join the market for goods and services as a supplier of products and/or of labour power.

However, in contrast to a United States farmer or any other kind of family undertaking of a commercial nature, the family unit generally comes to market in its capacity as a producer of use values (to use the classical terminology) and not of products which have been defined *a priori* as commodities, unless elements of external compulsion so dictate. In other words, the decision concerning what to produce is not based on the marketability of the product, but on its role in supporting the family and the production unit.

Frequently, even the manner of selling what has been produced reflects this feature of the peasant economy. Thus, when the product or products sold are the same as those which feature in the basic diet (maize, beans, wheat and so on), the peasant does not, at the time of the harvest, identify how much will be sent to market and how much will be consumed on the spot, but takes out for sale small parts of what has been harvested as the need arises for purchases and payments. Only on an *ex post* basis is it possible to reconstruct how much has been sold and distinguish it from what has been consumed on the spot. Only the presence of external constraints—either of an ecological nature (such as the fact that cultivation of basic grains is impossible)²² or of a socioeconomic nature (such as the existence of land earmarked by law for a specific purpose)—or the existence

²²An interesting example of an ecological constraint is furnished by certain forms of co-ownership of livestock observed in the Mexican humid tropics, where, as a result of the fact that the peasants find it impossible to continue with agriculture based on felling, clearing and burning—because the pressure of numbers on the land does not permit renewal of the plant cover required for this practice—a system of co-ownership has arisen between private stock raisers and *ejidatarios*, whereby the former concentrate on fattening and the latter on breeding. The cattle belong to the stock raiser, and the *ejidatarios* are entitled to half the calves (normally the females) and to the milk, in exchange for the use of their pastures and their care of the livestock under the co-ownership agreement. In these cir-

of advances or borrowings which give the creditor power to take decisions concerning the crops will prevent the full expression of the partially market-oriented nature of peasant output.

Obviously, the more the peasant unit depends on purchased inputs and goods for its reproduction, the greater (other things being equal) will be the role which market considerations play in decisions on what and how to produce.

It may be deduced from the above that we do not subscribe to the characterization of the peasant economy as a 'simple mercantile economy' adopted by various writers,²³ since, although we agree that the aim of this type of economy is to reproduce its component units, we feel that the internal operating logic is not a purely market-oriented logic, such as that which would be applied by a Western farmer or craftsman. At the same time, to quote Tepicht, in the context of the theory from which the description "simple mercantile economy" has been taken, the latter "is but the embryo of the capitalist economy", while the 'historical vocation' of the peasant economy appears to be very different from this role, in so far as this type of economy persists not only in many formations of a capitalist type, but even in those of a socialist type, as will be emphasized below.²⁴

5. *The indivisibility of the family income*

At the beginning of the article it was pointed out that when evaluating the results of the economic activity of peasant units, conventional economic analyses 'discovered' deficit situations in most cases. This was the result of applying to such units accounting categories identical to those applied to commercial agriculture, where rent, wages and profit are an objective

cumstances, the milk, which is sold or is made into cheese for sale, comes to play part of the role of maize, and the female calves the role which livestock normally plays in peasant agriculture: a savings fund and an illusory form of accumulation.

²³See footnote 3 for author references. The term "simple" is used by these writers to describe a situation where there is no accumulation of surpluses nor any increase in the production capacity of the units over time.

²⁴J. Tepicht, *op. cit.*, p. 18.

reality. For this purpose, the analyses imputed market values to the effort made by the peasant and his family within their own unit, conferring on him the dual character of entrepreneur and wage earner and thus creating a schizoid being who, if he pays himself the current wage in his capacity as a wage earner, is guilty of irrational or philanthropic behaviour as an entrepreneur, since he not only fails to secure the average profit but suffers systematic losses in the 'capital' advanced; if, on the other hand, the average profit is imputed to him as remuneration for his entrepreneurial activities, he is cheating himself as a wage earner, by failing to allocate himself even a reproduction wage.

In contrast to this fiction, which we feel throws no light on the motivations of the peasant as a producer, the important categories are those which have an objective existence or which are capable of being objectified on the basis of the concrete behaviour of the units.

In this regard, the result (and the aim) of the economic activity of the family unit is the total family income (gross or net, in cash and in kind) derived from the joint efforts of its members, in which it is not possible to separate the part of the product attributable to rent from that attributable to wages or profits.²⁵

6. *The non-transferable nature of a portion of family labour*

One of the special features of the peasant unit is that it makes use of labour power which would not be in a position to create value in other production contexts. We refer both to the work of children, old people and women and to the unsystematic use of the spare time of the head of the family and his adult children of working age. This is one of the reasons for the ability of

the family unit to bring products to the market at prices markedly lower than those required to stimulate commercial production.

According to Tepicht, peasant labour "is composed of at least two *qualitatively different* parts, both because of the nature of the forces it uses (some transferable to other economic sectors and others not), and because of the natural character of its products and the labour remuneration which is concealed in the prices at which they can be sold".²⁶ In other words, "what the peasant unit is in a position to produce with marginal forces in exchange for a marginal payment requires a completely different estimate by society (the market) if one considers the labour force required for this type of output".²⁷

This is so much so that even in countries with centrally planned economies one may observe that, in collective units, the ratio between payments per working day devoted to livestock raising and payments per working day devoted to crop farming is greater than 1, whereas the implicit ratio (as indicated by the prices of the products concerned) in the peasant units is substantially less than 1.²⁸

This ability to make use of the marginal labour force (that is to say, to convert it into products) may also be extended to land in the sense that areas which are marginal for commercial agriculture because of their extremely low productive potential—in other words, areas which are not even regarded as resources by commercial agriculture—can nevertheless support the peasant family, since the family regards any element which is capable of contributing to a net increase in the family income as a resource for as long as its reproduction requirements remain unsatisfied and there exists a margin within which its labour can productively be intensified.

A. Warman refers very lucidly to this phenomenon: "the peasant family in a capitalist society is first and foremost a unit which produces using unpaid labour. The labour of children and women, which is the object of very

²⁵See A. V. Chayanov, 1966, *op. cit.*, pp. 2-5, and J. Tepicht, *op. cit.*, p. 36. Perhaps the only virtue of the fiction referred to above is to show that peasant units are prepared to supply their products at prices below those which a capitalist producer would demand in order to pay current wages and rents and obtain at least the average profit. However, the reasons why this occurs are totally obscured by this form of evaluation or calculation. R. Bartra, in his study on Mexican agrarian structure (Bartra, *op. cit.*, pp. 58-66), makes use of the categories of wage, rent and profit in the manner indicated.

²⁶J. Tepicht, *op. cit.*, pp. 39-40.

²⁷*Ibid.*, p. 38.

²⁸*Ibid.*, pp. 36-37.

limited circulation as a commodity in capitalist Mexico, is one of the most important components of the peasant product. Women and children contribute thousands of working days which are invested in the independent production of peasants, in addition to performing work which is not strictly productive but which reduces outgoings and makes it possible to continue living with incomes which in statistical terms would be not just insufficient, but downright ridiculous".²⁹ Elsewhere he writes that "looking after livestock demands more energy than it yields, but this energy is distributed over a longer period and in units of low intensity which can be entrusted to people who cannot fully participate in labour during the critical period because they have little physical energy (such as children or old people) or who carry out other occupations at the same time (such as women). Owning livestock proves to be rational: it is like borrowing energy which is paid back with interest, but in instalments which can be paid by those without a full-time occupation in farming".³⁰

7. *The special type of risk internalization*

For an entrepreneur, at least in theoretical terms, the risk or uncertainty which attach to the profits that can be derived from alternative applications of his capital are viewed in the decision-making process as probability functions which prompt him to seek at least a degree of proportionality between profit and risk. In the case of the peasant, his vulnerability to the effects of an adverse result is so extreme that, following Lipton³¹, it seems appropriate to take the view that his behaviour as a producer is guided by a kind of 'survival algorithm' which leads him to avoid risks despite the potential profits which would arise if he accepted them. Lipton states that, while a well-off American farmer may prefer a 50% probability of obtaining US\$ 5,000 or US\$ 10,000 to the certainty of obtaining US\$ 7,000, an Indian farmer who is

offered a choice between a 50% probability of X rupees or 1,000 rupees and the certainty of 700 rupees per year, with which he can barely feed his family, cannot put X much below 700.³²

The way peasant units thus internalize risk and uncertainty is another of the reasons that help to explain the persistence of cropping methods which, though they generate lower incomes, lessen the variability of the expected values of output. These considerations also explain why peasants will not consider growing certain crops which produce a higher yield per unit area, but which are subject to substantial variations in prices or involve a complex marketing mechanism.³³

8. *Labour-intensive technology*

The need to take maximum advantage of the most abundant resource (the labour commitment referred to in the previous paragraph) and the existence of unfavourable terms of trade for peasant products in the overall or local market give rise to a tendency to reduce the purchase of inputs and means of production to the lowest possible level. As a result, the intensity of means of production per worker, or of purchased inputs per unit of product or per working day, are generally well below those of commercial or capitalist agriculture. In this regard, the decision on what to produce seems to be guided by the criterion of maximizing labour power per unit of product generated and/or minimizing purchased or hired inputs and means of production.

9. *Membership of a landgroup*

In contrast to an agricultural enterprise, the peasant unit cannot be viewed as a unit sepa-

²⁹*Ibid.*, p. 345.

³⁰An intuitive approach, corroborated by some empirical evidence, indicates a certain correlation between the value (and degree of liquidity) of the assets the peasant owns and his ability to take risks, either by adding crops and/or techniques which, although more profitable, are also more risky than the traditional ones, or by specializing in some of the traditional crops instead of maintaining the pattern of a larger number of crops occupying small areas, which is characteristic of the poor peasant. In this regard, livestock destined for breeding, the principal form of saving, fulfils the function of insurance against poor harvests or

²⁹A. Warman, *op. cit.*, p. 310.

³⁰*Ibid.*, p. 298.

³¹M. Lipton, "The Theory of the Optimizing Peasant", *Journal of Development Structures*, vol. IV (April 1968), pp. 327-351.

rate from other similar units, but always appears as part of a larger grouping of units with which it shares a common territorial base:³⁴ what A. Pearse defines as the landgroup, which consists of "a group of families forming part of a larger society and living in permanent interdependence interaction, and propinquity by virtue of a system of arrangements between them for the occupation and productive use of a single land area and the physical resources it contains, from which they gain their livelihood".³⁵ J. Tepicht, for his part, calls this social context the "protective shell of the family economy".³⁶

The very reproduction of the peasant family unit depends in many cases on the complex system of non-market exchanges conducted with a greater or lesser degree of reciprocity within the landgroup. Even the survival or decline of the family units frequently depends on the degree of cohesion which the landgroup maintains in the face of limitations on its scope for survival, generally arising from the development of commercial agriculture.

In fact, as is emphasized below, the penetration and development of market relations progressively weaken the role of the landgroup in the cycle of social reproduction of the family units, with the result that this reproduction occurs on an increasingly individual basis, which is unquestionably less secure.

Despite the crucial importance which the landgroup has had and continues to have in accounting for the persistence of the peasantry,

the adverse result of a risk taken, so that those who possess most livestock are most prepared to introduce innovations in cropping patterns or methods. A. Schejtman, *Hacienda and Peasant Economy*, degree thesis, University of Oxford, 1970, chap. IV.

³⁴We have avoided the term "rural or local community" which is used so frequently in the literature, since it implicitly contains the idea that the group in question shares common interests, which is not always the case, and raises "an empirical problem which should not be introduced into the definition" of these groupings. D. Lehman, *On the Theory of Peasant Economy* (photocopy provided by the author), p. 15; and H. Mendras, quoted by J. Tepicht, *op. cit.*, p. 22.

³⁵A. Pearse, *The Latin American Peasant* (London, Frank Cass, 1975), p. 51. This is identical to the concept used by Warman in *Los campesinos hijos predilectos del régimen* (Mexico City, Nuestro Tiempo, 1972), p. 145, when he speaks of a "group which shares a common territorial base".

³⁶J. Tepicht, *op. cit.*, p. 20.

and despite the importance it should have when any rural development strategy based on the peasantry is being drawn up, there has very often been a tendency to restrict analysis of the peasant economy to analysis of the family unit. A. Warman, in contrast, emphasizes that "it is obvious that the family cannot remain in a position to produce without capital and without opportunities to accumulate and cannot subsist without reserves or savings, in an environment dominated by capitalist relationships, without the support of a larger grouping which furnishes conditions of stability in this contradictory situation. In the case of Mexico, the larger grouping takes the form of the agrarian community, in which one may observe on a broader and more complex, though still partial, scale the production relations of the peasant economy".³⁷

10. *Commercial agriculture: principal contrasts*

By way of concluding this first chapter it seems appropriate to outline the principal features of commercial agriculture so that we can contrast them, albeit in general terms, with those which have been highlighted as being characteristic of the peasant economy.

A description of this sector does not call for a very detailed conceptual effort, since—given the level of abstraction in this chapter—its principal features are only too well known; reference has already been made to some of them when contrasting them with those of the peasant economy. Accordingly, it will be sufficient to point out that in commercial units there is a clear separation between capital and labour power, and that as a result profit, wages and even land rent are categories which are the objective expression of relations between owners of means of production, landowners and sellers of labour power.

Kinship relations are completely divorced from production relations; in other words, what we have called the commitment to the labour force does not exist.

The relations between units are regulated

³⁷A. Warman, *op. cit.*, 1976, p. 314; see also p. 325.

by universal market laws in which there is no place for exchanges based on reciprocity, or, to put it another way, on considerations of community and kinship.

Production is exclusively market-oriented (though for some crops a margin is left to allow for internal consumption or use as inputs within the unit), in the sense that decisions on what and how to produce are completely unrelated to what the producers and their families consume.

Considerations of risk and uncertainty arise strictly in terms of probabilities, in the

sense that they are internalized in the decision-making process as ratios between magnitudes of profit expected and probabilities associated with each magnitude.

The principal aim of production, and accordingly the criterion used to determine what to produce, how much, how and for what purpose, is to secure at least average profit, which is destined for accumulation (and, of course, consumption by the entrepreneurs).

The contrast between the two forms of social organization of production referred to is represented diagrammatically in the table below.

	Peasant agriculture	Commercial agriculture
Purpose of production	Reproduction of the producers and the production unit	Maximization of the rate of profit and capital accumulation
Origin of the labour force	Basically the family and, on occasion, reciprocated loans from other units; exceptionally, marginal quantities of wage labour	Wage labour
Commitment of the head to the labour force	Absolute	Non-existent, apart from legal requirements
Technology	Very labour-intensive; low intensity of 'capital' and of purchased inputs	Greater capital intensity per labour unit and higher proportion of purchased inputs in the value of the final product
Destination of the product and origin of inputs	The market, in part	The market
Criterion for intensification of labour	Maximum total product, even at the cost of a fall in the average product. Limit: nil marginal product	Marginal productivity \geq wage
Risk and uncertainty	Assessment not based on probabilities; 'survival algorithm'	Internalization based on probabilities, in the search for rates of profit proportional to risk
Nature of the labour force	Makes use of non-transferable or marginal labour	Uses only transferable labour on the basis of skills

	Peasant agriculture	Commercial agriculture
Components of net income or product	Indivisible family product or income, realized partially in kind	Wage, rent and profit, exclusively in the form of money

II

Articulation and Break-up of Peasant Agriculture

So far we have restricted ourselves to analysing the rules which govern the internal operation of the peasant economy, and the differences which emerge from a comparison with those applying to commercial agriculture. We will now consider the way in which these characteristics influence the position of the peasant economy in the national society of which it is part.

1. *The concept of articulation*

We consider the concept of articulation of different forms of social organization of production—the peasant and the capitalist forms—to be of central importance in classifying the phenomena which we wish to examine.

By articulation we mean the relationships (or system of relationships) which link the sectors in question one with another and with the rest of the economy, forming an integrated whole (the economic system) whose structure and dynamics are determined by (and in turn determine) the structure and dynamics of the parts.³⁸

Articulation takes the form of exchanges of goods and services (or values) between sectors: exchanges which are characterized by their

asymmetry³⁹ (or lack of equivalence), and which lead to transfer of surpluses from the peasant sector to the rest of the economy, as a result of a form of integration in which the peasant economy sector is subordinated to the remaining elements in the structure (capitalist agriculture and the urban-industrial complex).⁴⁰

Although this articulation is expressed or becomes visible at the level of the market relations between sectors—in the markets for products, inputs, labour and even land—the terms of this exchange, or its asymmetrical nature,

³⁹The term “asymmetry” was used by Warman (*op. cit.*, 1976, p. 325), in a sense similar to that which we are using here, in order to contrast (symmetrical) relationships within the peasant community with those which arise between that community and the rest of society. “In the peasant mode of production the internal relationships are oriented towards symmetry, towards reciprocity, in order to make it possible to ensure the subsistence of the families, the smallest efficient units in the grouping. The community is the context through which flow the relationships of reciprocity which play the role of redistributing resources, flexibly transmitting the use of the means which make agricultural production, the basic activity of this mode, possible. Among the different peasant communities the symmetrical relationship is realized through the direct exchange of complementary goods by the producers themselves. In order for the resources to be exchanged symmetrically, they must be under the independent command and control of the peasants, whether or not they are formally recognized as their possessions.” We shall see below when analysing the phenomenon of peasant differentiation, how the loss of independent control over their conditions of reproduction leads to the emergence of asymmetrical relationships even within the landgroup.

⁴⁰In order to define this form of articulation, some writers have adopted the term “subsumption”, which encompasses the concepts of integration and subordination (G. Esteva, *op. cit.*, p. 4).

³⁸This concept is used by many writers in a sense very close to that given it in this paragraph. Examples are J. Bengoa, “Economía campesina y acumulación capitalista”, *Economía campesina, op. cit.*, pp. 251-286; R. Bartra, *op. cit.*, pp. 79-87; A. Warman, *op. cit.*, pp. 324-337; G. Oliver, *Hacia una fundamentación analítica para una nueva estrategia de desarrollo rural* (photocopy) (Mexico City, CIDER, 1977), pp. 176-199.

cannot be explained at this level, but originate in differences at the level of the process of production, i.e., the level of the forms of production or differences in the operating logic specific to each of the sectors.

We shall first consider the main forms of articulation, and then examine how the nature of each form may be 'explained', in the final analysis, in terms of differences in the process of production.

2. Articulation in the market for products

An initial form of articulation, or, to express it differently, of exploitation of peasant agriculture, is that which arises in the market for products to which the peasant comes to sell part of his output and to buy inputs and final goods which he requires for his reproduction. There the terms of trade, or the relative prices of what he buys and what he sells, are and always have been systematically unfavourable to him. Regardless of the fact that the terms of trade may record improvements in a specific period and with respect to a base year, there is a sort of 'primordial' undervaluation of peasant products which is inherent in the very structure of relative prices (as between peasant production and capitalist production), formed over generations, on which the reproduction of the economy as a whole is crucially dependent because of the well-known relationship between food prices, wage levels and the rate of profit.⁴¹

Although the extent of inequality in exchange—in other words, the magnitude of the surplus transferred from the peasant sector to the rest of society through the above-mentioned mechanism—can rise or fall depending on the greater or lesser bargaining power (social power in the market) which each party can exert in the market relationship, its origin lies in the internal logic of production in each sector, and not in the market relationships, although this is where it is expressed.

The 'secret' which makes unequal exchange possible is to be found in the readiness of peasant agriculture to produce at prices

lower than those which a capitalist producer would require in order to do so in the same conditions, since while it is sufficient for the former to meet the requirements for the reproduction of the labour force employed and the fund for the replacement of the means of production used, the latter sector requires in addition a profit which is at least equal to the average profit in the economy.

If, to simplify, we assume that the labour force employed in the two cases is the same, that the cost of its reproduction is covered by wages, that the inputs purchased are the same in both cases and that the peasant's replacement fund is equal to the entrepreneur's depreciation, the difference in the prices at which each will be prepared to produce will be the average profit, if they pay the same rent, or the profit plus land rent if both own the land.⁴²

"The small peasant landowner behaves neither like the owner of property nor like the capitalist entrepreneur. As a matter of principle he is obliged to produce regardless of conditions on the market, or he will fail to survive. Immediately he *contents himself with the equivalent of a wage*, without raising the question of rent, or even the question of profit. The small peasant behaves exactly like a wage-paid piece-worker."⁴³

This is precisely why peasant agriculture may be found in areas (marginal lands) and in lines of products where capitalist undertakings would be uneconomic.

This is the phenomenon which lies at the very foundation of the formation of the price

⁴²Land rent (imputed or actually paid) will have to be added to profit if we compare a peasant landowner with an entrepreneur landowner, since while the former would be prepared to overlook the value of this rent, or (to express it more clearly) to view it as an integral part of his total 'reproduction' income, the latter will demand a return equivalent to that on his other capital.

⁴³K. Vergópoulos, "Capitalismo disforme", in S. Amin and K. Vergópoulos, *La cuestión campesina y el capitalismo* (Mexico City, Nuestro Tiempo, 1975), p. 165. Chayanov made exactly the same observation: "...we take the motivation of the peasant's economic activity not as that of an entrepreneur who as a result of investment of his capital receives the difference between gross income and production overheads, but rather as the motivation of the worker on a peculiar piece-rate system which allows him alone to determine the time and intensity of his work". *Op. cit.*, 1966, p. 42.

⁴¹J. Tepicht, "Economía contadina e teoría marxista", *Crítica marxista*, No. 1, Rome, 1967, p. 76.

systems, and particularly of the historical process of formation of relative prices between agriculture and industry, which have made possible a systematic transfer of surpluses from the peasantry to other sectors through the medium of exchange.

This situation does not apply only to the peripheral countries, since it arises in any economy (capitalist or socialist) where there is a substantial sector involving family producers, even the "farmer" type, whose product—to quote G. J. Johnson, referring to the United States—is supplied to society at 'bargain prices': "A cynic might even say that the family farm is an institution which operates in order to encourage the families of farmers to provide quantities of labour and capital at rates of return which are substantially lower than the norm in order to supply the economy as a whole with agricultural products at bargain or sale prices".⁴⁴ This is why over long periods the rise in agricultural productivity in many developed countries has not been accompanied by proportional increases in the incomes of farmers, in contrast to what happens in the remainder of the economy.⁴⁵

This asymmetry exerts pressure for the intensification of family agriculture, which, in the "farmer" type, usually takes the form of overinvestment and, in the peripheral peasant type, that of more intensive self-exploitation of family labour.⁴⁶

State subsidies, either provided directly through the medium of low prices for inputs

and products and credit at low interest rates, or implicitly through the financing of infrastructure for which the beneficiaries are not charged, represent no more than a form of partially compensatory recognition of this phenomenon.⁴⁷

3. Articulation in the labour market

Another area where articulation is expressed is the labour market, particularly, though not exclusively, the market for agricultural day-labourers, who can be engaged by the commercial sector at wages lower than their cost of survival or reproduction.

If no peasant economy sector existed, the wage bill would have to be sufficient at least to guarantee the sustenance and reproduction of the labour employed, in other words the sustenance, over time, of the labour force required by the process of accumulation and growth. If an average rate of profit prevailed in both sectors (agriculture and industry), this would lead to higher agricultural prices, with the consequent chain reaction on wages, profits and accumulation.

The fact that a substantial proportion of the labour force employed in commercial agriculture (and even in urban-industrial activities) originates from or is more or less directly linked with the peasant economy, and that its conditions for reproduction are in part generated in the peasant economy, permits a reduction of the wage bill by means of the dual mechanism whereby wages paid per day worked are lower than in other sectors, while payment is made only for days actually worked, however low this number may be, regardless of the fact that this may by no means cover the annual subsistence

⁴⁴Quoted by J. Tepicht, *op. cit.*, 1967, p. 74.

⁴⁵As an example one might cite the case of French agriculture after the last world war. Denis Cespède has shown very clearly the transfers of agricultural values to the benefit of the industrial sector. Between 1946 and 1962, agricultural productivity rose from 100 to 272, while non-agricultural productivity rose from 100 to 189.2. Nevertheless, over the same period the per capita income of the active population rose from 100 to 167.8 for agriculture, while for the non-agricultural sectors it increased from 100 to 205.4. Let us note in passing that starting in 1937 a similar situation arose in the United States, where average annual growth in the productivity of agricultural labour substantially exceeded that of industrial labour: 3.8% compared with 1.4% for the years 1937-1948, and 6.2% against 3% for 1948-1953." K. Vergópoulos, *op. cit.*, p. 169.

⁴⁶See G. J. Johnson, "The Modern Family Farm and its Problems", in *Economic Problems of Agriculture in Industrial Societies* (London, Macmillan, 1969).

⁴⁷In order to gain a vivid idea of what would be involved if this asymmetry were to be completely corrected, one need simply observe what happened in the urban-industrial world when the oil-producing countries decided to cease subsidizing the energy which they were selling to the industrialized countries at prices lower than production costs in absolute terms. Oil, like land, is a non-renewable resource (though this applies in a more relative sense to the latter), and can command absolute rent. The fact that, in agriculture, this rent has declined, and even disappeared in many cases, is no more than the result of the subordination of agriculture to the requirements of urban-industrial development.

of the worker himself, and still less that of his family. The viability of capitalist agriculture is frequently due to the fact that it is possible to pay wages lower than the reproduction cost of the labour, especially in areas where the differential land rent (in the Ricardian sense) is very low or non-existent.⁴⁸

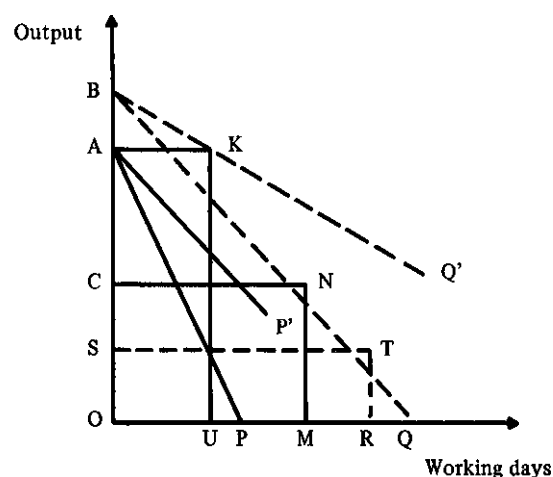
Temporary rural migrations from areas of peasant agriculture to areas of commercial agriculture merely confirm this interdependence.

Similarly, in the case of the sale of labour power, the possibility of a non-equivalent exchange—in other words, the possibility of paying less than the reproduction cost of the labour employed—is a phenomenon which, although it is expressed in the labour market, and although it may appear to depend exclusively on the bargaining power between the parties, has its origin in the conditions of production and reproduction of the peasant economy.

The above is connected not only with the fact that subsistence is assured in part by the peasant economy itself, but also with the fact that the amount of labour power supplied by the peasants, as well as the wage levels they are prepared to accept, are determined by the production conditions characterizing the unit to which they belong. In this regard, the further the peasant is from obtaining the level of income (in cash and in kind) required for reproduction in his own unit, the greater will be the number of days he is prepared to work in exchange for a wage, and the higher the level of intensity with which he is working his plot of land, the lower will be the wage necessary to attract him away from it, in accordance with the phenomenon of diminishing returns.

The diagram below, which is of course an oversimplification of real conditions, helps to clarify the above: Here we are comparing two production units (A and B), whose average and marginal product curves (AP' and BQ', AP and BQ), in this example indicate greater availability of land in unit B. Let us assume that magni-

tude OCxOM is equal to the net reproduction income. Unit A, with the maximum possible intensity (in other words, using OP working days and with nil marginal productivity), does not achieve the reproduction income, since $OCxOP < OCxOM$. It will therefore be sufficient to offer a wage equal to OS (=RT) so that the peasant will work away from the plot for at least PR working days (assuming that the family labour available is greater than OR) so as to ensure that $(OC \cdot OP) + (PR \cdot RT) = (OC \cdot OM)$. In contrast, the peasant on unit B, who can achieve the reproduction income on his own plot ($OC \cdot OM = UK \cdot OU$) by working OU days, will not be prepared to sell labour power unless the wage offered is greater than UK.



The two articulation mechanisms described (product market and labour market), though significantly different in form, nevertheless have a common basis: the peasant unit's capacity and readiness (for structural, not philanthropic reason) to undervalue its working time with respect to the patterns established by the rules of operation of the capitalist sector, either as labour power proper, or as labour power materialized in the products which it places on the market.

This capacity is the source both of the peasantry's strength, in the sense of a force working for its persistence, and of its weakness, in the sense of a force working for its break-up.

⁴⁸We make this qualification because in areas with high differential rents which can be appropriated by the entrepreneur landowner, he is in a position to secure extraordinary profits which enable him to compensate both for the unfavourable price relations and for the payment of wages equivalent to the reproduction cost of the labour.

4. *Break-up, recovery and persistence*

As was pointed out in the introduction, all the schools of thought which derive from liberalism (liberals proper, rationalists, positivists, marxists and so on) postulated the transitional nature of the peasantry, which was regarded as a segment of society doomed to disappear—some of its members converted into *bourgeois*, the rest converted into proletarians—as a result of the vigour of capitalist development. Peasantries in specific societies were considered cultural and/or social relics from former times.

Although it is true that the relative importance of the peasant sector, as a segment of the population, has been declining, nevertheless in the peripheral countries the peasantry remains one of the largest groups, since it rarely accounts for less than a third of the working population. If this is a mere transitory phase, it must be recognized that the transition has been very lengthy. What is more, in some societies the influences working for its disappearance have been checked, to some extent, by others which are not only preventing its disappearance but even, in specific areas and circumstances, creating peasant forms of organization of production where they did not exist previously.

From the political and economic policy viewpoint, and bearing in mind the above considerations, it seems more sensible to abandon the assumption of transitoriness and take the view that for the foreseeable future (and for a period relevant in terms of policy formulation) the peasantry will persist. Consequently, it is necessary to undertake an analysis of the forces working to ensure its persistence, and those fostering its break-up, so that they can be taken into account in the formulation of development strategies and policies designed to ensure that the peasant sector plays a role commensurate with its potential.

In the discussion below, break-up of the peasant form will be understood to mean the process which leads to the progressive narrowing down of options which would permit the family unit to survive using its own resources: in other words, loss of the ability to generate a volume of output which is equivalent to the

fund for family consumption and the fund for the replacement of inputs and means of production.

Recovery will be understood to mean those processes which reverse the above-mentioned trend, as well as those which lead to the creation of peasant units in areas where they did not exist before.

In general terms, the forces working in favour of the persistence, recovery or break-up of the peasant sector act on, and have their basis in, the basic network of relations between and within sectors (between the peasant and the rest of society), which we have defined as a form of articulation which subordinates the peasant form to the national economy and society, and whose principal features have already been described. In other words, these forces help to intensify, redefine or restrain the elements of asymmetrical symbiosis of a structural nature which have been encompassed here under the concept of articulation through subordination. In this sense these forces can be viewed as superstructural elements, which affect and are affected by the structure defined as articulation.

For descriptive purposes, these forces may be grouped on the basis of their origin, and a distinction may be drawn between those which stem from the State and its policies; those generated by the action of the intermediary persons or institutions, or brokers, that represent a link between the peasantry and the rest of the economy; those generated by the conscious actions of the commercial sector; and those which derive from the dynamics of demographic and ecological factors.

(a) *Action by the State*

Since the State is an expression of the correlation of social forces at each moment in time, its action cannot fail to be a blend of contradictory forces, even if the resultant of these forces is the maintenance of the conditions of reproduction of the social whole and, consequently, the maintenance of the type of articulation to which we have been referring.

In general, policies which involve sub-

sidies to the peasant sector,⁴⁹ such as credit at preferential rates, support prices, the establishment of minimum wages (especially if compliance is monitored), and so on, are actions which tend to limit or check the break-up of the peasant unit by making possible terms of trade, in various areas, better than those which would be achieved in free market conditions.

Agrarian reform and new settlement are also, at least in theory, policies which impede the break-up of peasant units, and even encourage their creation through the subdivision of larger geographical units and the development of complementary legislation and action to protect the units created.

In contrast to the above-mentioned actions, public investment in irrigation, or in improving communications and prospects for the export of produce, has frequently led to increased imposition on the resources of the peasant sector—both directly, through appropriation of the areas in question by commercial agriculture, and indirectly, through accentuation of the (asymmetrical) trade relations in the process of reproduction of the peasant economy—and have thereby increased its vulnerability.

(b) *Action by intermediary elements*

Here we are referring to the various types of mechanism for intermediation which link the peasantry to the rest of the economy and permit the extraction of surpluses at the level of relations of distribution and exchange. In general, these intermediary persons and/or institutions make use both of the possibilities opened up by the specific operating logic of the peasant economy and of those derived from the lesser bargaining power of units from that sector and the intermediaries' monopoly (sometimes on a very small scale) of the channels through which this sector is linked to society as a whole.

⁴⁹We are using the term "subsidies" in the sense that the prices or values involved are more favourable to the peasantry than those to which they would be subjected in the market without State intervention. In no case are they subsidies in the sense of a return of the impositions arising from the structural relations which are expressed in the price system.

The functions of the intermediary elements have been classified by A. Warman as follows:

(i) Material adaptation of products, involving a sort of scaling down of what reaches the peasant sector as a product, and a scaling up of what leaves the peasant sector for the rest of the economy;

(ii) 'conversion of symbols', involving 'translation' into the peasant language of the external norms of trade and accounting, in other words, converting units of weight, quality standards and so on into generally accepted terms;

(iii) the physical movement of the products which enter or leave the peasant economy from and to the external world;

(iv) the mobilization of finance by means of which the peasant can be more fully integrated in the market for consumer goods or inputs, to a greater extent than would be possible if he sold his products or labour power himself.

These types of function make it possible to extend market relations in the process of reproduction of the peasant economy and to integrate it in the rest of the national (and international) economy. In order to fulfil this function, the intermediary element "is located between two modes of production, handles two types of language, two types of social relationship and economic rationality, and guides the flow of capital towards the dominant mode. He himself obtains a profit from all his acts, equally when he converts weights into kilos and when he lends money for the sowing of onions... His success depends on his flexibility and diversification, on his being able to sell seven different things and accept a chicken in payment".⁵⁰ Each of the functions described involves the appropriation of surpluses, and in this regard contributes to the break-up of the peasantry; however, to the extent that the persistence and reproduction of the peasantry depend on exchange through the medium of trade, the intermediary elements contribute to its survival, although they exact a high price.

⁵⁰A. Warman, *op. cit.*, 1976, p. 332.

(c) *Action by enterprises responsible for processing and intermediation*

Although strictly speaking this phenomenon should be included among the structural components of articulation, we have decided to highlight it separately since it is a recent tendency in the organization of agricultural production. We refer to the phenomenon of the contracts commonly drawn up between large agro-industrial or agri-business enterprises and the peasants of specific regions.

These contracts reflect a tendency on the part of capital to abandon direct control of land and the processes of primary production and replace them by financial and commercial control of a huge network of small and medium-sized 'independent' producers, either by creating a sort of peasantry economically attached to them or by "attaching" a pre-existing group of peasants, who can be induced to work on advantageous conditions which—for the reasons already indicated—business agriculture would not accept. This is particularly true in situations where the process of break-up of the peasantry can only be halted by exploring avenues for labour intensification which involve the partial or total abandonment of traditional farming patterns and their replacement by market-oriented patterns with high unit values.

(d) *The dynamics of demographic and ecological factors*

Natural growth in the peasant population, which is appreciably greater than the expansion of the already inadequate capacity of the remaining sectors to absorb that growth productively, is reflected in increasing pressure on land, or, to put it another way, a deterioration in the land/man ratio, not only in the sense of an arithmetical fall but in the no less important sense of a decline in the productive potential of the existing land.

In general, this is a force which contributes to the break-up of the peasantry, since fragmentation—which is the result of the subdivision of plots as a consequence of population growth—is an inescapable sign of a rise in the fragility or vulnerability of the peasant economy and a prelude to its disappearance.

The existence of possibilities of working

outside the plot can help to defer the impact of this tendency through 'subsidization' of the continued existence of the unit with incomes obtained outside it. Within the peasant segment, the above-mentioned forces give rise to a process of differentiation or polarization, in which a minority of the units succeed not only in preventing break-up but even turn the intensification in market-oriented relations to their account and achieve a certain amount of accumulation.

Another section achieves a sort of equilibrium between the various forces and succeeds in maintaining its conditions of reproduction over time with a greater or lesser degree of security.

For the majority, however, the dynamics of break-up—which takes the form of a progressive loss of their ability to support themselves—are inexorable and can be alleviated only by the possibility, which is not always available, for the producer or the members of his family to obtain incomes from outside the plot.

In socioeconomic analysis of the peasant sector, and in the diagnoses which precede the formulation of a strategy for its development, it is of crucial importance to recognize the type of heterogeneity to which the processes of differentiation indicated here can lead.

In other words, we may, for the purposes of description, stratify the peasant segment as a function of the magnitude of a specific variable within a continuum (land, output, and so on). The important distinction is whether or not internal conditions exist for the support of the production unit and/or the landgroup.

This criterion can be used to distinguish at least three important categories within the peasant agriculture sector:

(i) the infrasubsistence segment, or poor peasant' segment, made up of those units which need incomes from outside the plot in order to attain a minimum subsistence income. This appears to be the segment recording fastest relative growth in Latin America;⁵¹

⁵¹It need barely be noted that rural workers who are landless or, rather, who are not attached to a family unit which possesses land, are not regarded as peasants in the sense in which this term has been used here.

(ii) the stationary, "simple reproduction" or "average peasant" segment, made up of that part of the peasantry whose product is sufficient to cover the fund for family consumption and the fund for the replacement of inputs and means of production, from one cycle to another;

(iii) the surplus-producing or 'rich' peasant segment, made up of those units which, with their resources, more or less systematically generate a surplus over and above what is re-

quired for the reproduction of the family and the production unit, although they cannot always convert it into accumulation. Whether or not this stratum will lose its peasant status—in other words, whether or not it will become involved in a process of accumulation founded on the systematic engagement of non-family labour on a substantial scale—will depend on conditions which it is beyond the scope of this paper to analyse.

External sector statistics for development planning: a matter for statisticians and planners?

*Mario Movarec**

Ever since its creation CEPAL has sought to foster the improvement of statistics, and to that end has encouraged discussion of the subject between planners and statisticians on several occasions. The author believes that in the case of foreign trade statistics, leaving aside the important action which may be taken by these professionals in the future, certain obstacles prevent their improvement because of the influence of certain factors which are directly linked to the external sector and which do not arise in other sectors of statistics.

After identifying the influences on these statistics—systems of customs administration, operational and marketing arrangements, the requirements of international comparability and regional integration processes—he explains how these factors have, over time, had a beneficial or harmful effect on the way statistics have developed.

In the third part of his paper he analyses the role played by planners and statisticians in this process, and the serious obstacles facing the latter, in the light of what has happened in LAFTA since 1960.

He concludes with an analysis of improvements which have occurred in statistics, indicating that the factors dealt with at the beginning appear to have had greater influence than the actions of statisticians and planners themselves.

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I

Background

CEPAL has for many years been stressing the need for a continuous programme of technical meetings between statisticians and planners to study and draw up proposals designed to co-ordinate and guide the efforts of statistical offices to meet the growing demand for information.

This concern has arisen both in CEPAL and in the national research and planning bodies, as comparisons of statistical information requirements with availability have shown that the output of statistics, and the promptness with which the data are compiled and published, are inadequate to meet the current demand for information.

Nevertheless, it should be pointed out that this view of the unsatisfactory state of statistics is of a very general nature, as no details have yet been furnished concerning the extent to which the statistics produced fall short of the requirements of planning, or concerning the socio-economic areas in which the statistics are satisfactory or unsatisfactory, since planners' demands for information are extremely wide in their scope and encompass practically all the phases of the statistical function. This makes planners the largest and most important users of statistics, and also imposes specific requirements. Meeting these requirements calls for the prior establishment of an order of priorities, but no such priorities have yet been laid down in Latin American countries.

Proposals have been made, however, aimed at making it easier for the less developed countries to prepare statistical series which might be of use in drawing up an integrated system of basic statistics for use in economic and social development programmes.¹

Moreover, in connexion with the regional appraisal of progress in the implementation of the International Development Strategy, CEPAL has collected together "in systematic form the principal statistics and indicators... which, in essence, represent the quantitative

¹*Statistical Series for the Use of Less Developed Countries in Programmes of Economic and Social Development*, Statistical Papers, Series M, No. 31 (United Nations publication, Sales No. 59. XVII.10).

bases of the reviews and studies carried out in the Second Regional Appraisal of the International Development Strategy".²

Suggestions have also been made regarding the organization of information for the purposes of appraising development.³

Against this background, and in the light of any other elements which may arise, it is urgently necessary, firstly, to survey the statistics currently being produced so as to determine how useful they are for planning, in order to avoid the problem of under-utilization of data, and subsequently, on the basis of this survey, to indicate what new statistics not as yet being compiled should be produced.

Naturally, this is a task which must be carried out on a continuous basis jointly by planners and statisticians. It is not the exclusive speciality of either. This has been shown clearly on every occasion when they have met to discuss the topic, and there is agreement on the important task which the two groups of professionals should perform jointly.

While there are solid grounds for believing that this joint action will produce genuine progress in statistical activities as a whole, on the basis of demand from planners, prospects for improvement differ from one sector of economic and social activity to another. This opinion has more to do with the influence of various elements on statistical development in

some sectors than with the rate at which the statistics can be developed. To put it briefly, the question is whether the statistics can advance only with the help of programmes established by statisticians or planners, or whether, in contrast, other factors also play a role, and can consequently foster their development independently — and, in some cases, as we shall see below, hamper or even prevent their improvement.

When we state that statistical development in the various sectors of economic and social activity may not be uniform, we are implicitly referring to the actual characteristics of each sector; it is they which in the final analysis determine what the statistics may or may not record and reveal, and thus affect their development. This is what happens with foreign trade statistics, the principal subject of this article, whose development is geared to the past and present influence of those factors. On the basis of these elements, a number of ideas are sketched relating to future action programmes which might be jointly undertaken by statisticians and planners.

It should be pointed out that this article was prepared with the sole aim of placing foreign sector statistics in a context as much as possible in keeping with their actual position. It should also be mentioned that, throughout the article, examples are given of past or present situations in some countries regarding specific aspects of their foreign trade statistics. This is done solely in order to illustrate the argument; in no way should the conclusion be drawn that these circumstances occur only in the countries mentioned, since examining a given feature in all the countries would have involved an assessment beyond the scope of this article.

²*Latin American development and the international economic situation: Second Regional Appraisal of the International Development Strategy; Part Three: Indicators of economic and social development in Latin America* (E/CEPAL/981/Add. 3), p. 1.

³Juan Sourrouille, *La organización de la información para la evaluación del desarrollo*, Cuadernos de la CEPAL, No. 23 (Santiago, CEPAL, 1978).

II

Influence on the development of foreign trade statistics

We must examine thoroughly the main factors which, since they are directly linked with the characteristics of the external sector, influence progress in foreign trade statistics:

— The first in order of importance and influence is “the fact that trade statistics are frequently obtained as a by-product of tariff administrations”, which “tends to affect the type and accuracy of the commodity information included, apart from the effect on the statistical commodity classification itself”⁴

— In second place fall the operational and marketing systems used to effect foreign trade operations. They too have a substantial effect on the type and quality of the statistics compiled.

— The third relates to the requirement that the data should be internationally comparable. Although this has applied to all statistics, especially in recent years, it has been of greater importance for much longer in the case of external sector statistics.

— The fourth factor relates to the regional and subregional integration movements, which have led to marked progress in the foreign trade statistics of the Latin American countries.

The influence of these characteristics of the external sector on the corresponding statistics over time not only explains their present status but also hints at the development in prospect for them in the medium and long term.

1. *Dependence on tariff administrations*

The first of the influences on foreign trade statistics mentioned above originated more than a thousand years ago. In the first half of the eighth century the Moorish conqueror Tariff ben Malek⁵ reached the Iberian peninsula and

installed himself in a place that probably corresponded to the Roman town of Julia Traducta. After this invasion the town took the name of Tariff ben Malek, now Tarifa. This southern Spanish town, close to Gibraltar, offered a base for control of the Straits. There Tariff ben Malek established a post for collecting tribute from passing ships according to the quantity and kind of goods they carried.⁶ This fact is of great importance for statistics, though it may not seem so. It marks the origin of an economic instrument which is of extensive current application and importance: the tariff. It also marks the birth of foreign trade statistics, and at the same time their dependence on tariff systems administered by the customs authorities. For even though we do not know the criteria used in those far-off days to apply a tariff to the various products, there is no doubt that they must have been classified to ensure that a check was kept on what was collected. This process of checks, while producing statistics, was really a by-product of the application of levies on the passage of vessels, and was not of course aimed at compiling statistics for economic analysis.

Consequently, the first statistical records relating to foreign trade were prepared in order to facilitate the collection of such levies, and the recording of the data was subordinated to that end.

This close relationship between the collection of tariffs and the recording of statistics, with the consequent subordination of the latter to the former, has continued to the present at the national and international level, and accounts both for advances in the corresponding statistics, and also their limitations and possible backsliding.

(a) *Product classification*

The first venture in international comparability at the world level involved tariffs and not statistics. Twelve centuries after the tariff had

⁴V. S. Kolesnikoff, “Commodity classification”, in R. G. D. Allen and J. Edward Ely, eds., *International Trade Statistics* (New York, John Wiley and Sons, 1953), p. 73.

⁵This person should not be confused with the conqueror Tarik lieutenant of the Arab leader Muza, who began the conquest of Spain in the year 711.

⁶Kolesnikoff, *op. cit.*

first appeared, the World Economic Conference meeting in Geneva in May 1927 under the auspices of the League of Nations discussed the need to establish a common basis for customs tariffs.⁷ A technical committee undertook the task of preparing a draft common nomenclature, which was completed in 1931, and after extensive revision a final version appeared in 1937.⁸ Only after this draft had been concluded in 1938, did the League timidly embark on the task of preparing the Minimum List of Commodities for International Trade Statistics, based on the draft Customs Nomenclature.⁹

The Minimum List was not prepared as an independent statistical classification with its own structure, but was a selection of the principal products on which it was considered useful for the countries to publish foreign trade data; in practice, this did not occur, because each country developed its own statistical classification. Furthermore, the Minimum List used the same codification and the same definitions as those in the draft Customs Nomenclature. The Nomenclature followed the traditional principle of progressive classification, whereby the same section groups together all products prepared using the same materials—from the raw material or product to the finished product—so that, since they contain products with very different degrees of processing, the sections are of no economic significance in the analysis of foreign trade. For this reason, such a tariff nomenclature structure is not used to examine the evolution of the foreign sector, since, for example, comparison of a country's export and import values based on the tariff sections serves no purpose.

It is not surprising, therefore, that when in 1950 the Brussels Customs Co-operation Council embarked on the drafting of the Brussels Tariff Nomenclature (BTN), the United Nations Statistical Commission recommended the

preparation of a Standard International Trade Classification (original SITC),¹⁰ suitable for the analysis of international trade, which would meet the need and growing demand for greater statistical comparability. When in 1960 the SITC was revised¹¹ and expanded, one of the principal objectives was to ensure appropriate correspondence with the BTN, since the revision involved some modifications of both classifications. In the case of the BTN this called for the subdivision of a number of BTN items and the provision of a commentary in the Brussels Explanatory Notes on the subheadings thus created. The Customs Co-operation Council agreed to take these steps, thus making the precision of definition achieved by the BTN also applicable to the SITC and furnishing countries with a system offering at the same time the advantages of an internationally agreed tariff nomenclature and an internationally agreed statistical classification. A reciprocal one-to-one correspondence was thus achieved between the revised SITC and the BTN, and the maintenance of this correlation between the two classifications was considered essential when, in 1975, the SITC was further revised¹² in order to make it more suitable for the compilation and the analysis of external trade statistics in view of the rapid increase in the volume of world trade since 1960, and the changes which had since occurred in its geographical and commodity patterns.

Since 1960, therefore, there has been a correspondence between the BTN and the SITC at the most disaggregated level of the two classifications, so that by regrouping data based on the BTN, information can be presented according to the SITC, and *vice versa*. This achievement merits emphasis, since it highlights the extent to which the development of statistical classification has been dependent on tariff classifications.

In the long period between 1937-1938

⁷*La uniformación o coordinación de ciertos aspectos de los sistemas aduaneros en los países latinoamericanos: Nomenclatura Arancelaria Uniforme*, (CEPAL/E/CN.12/C.1/WG.3/2), July 1960.

⁸*Draft customs nomenclature*, Series II, Economic and Financial, (1937 II.B.5), vols. 1 and 2.

⁹*Minimum list of commodities for international trade statistics*, Series II, Economic and Financial (1938 II.A.14) and corrigendum, 1939.

¹⁰*Standard International Trade Classification*, Statistical Papers, Series M, No. 10, 2nd ed. (United Nations publication, Sales No. 51.XVII.1).

¹¹*Standard International Trade Classification, Revised*, Statistical Papers, Series M, No. 34 (United Nations publication, Sales No. 61.XVII.6).

¹²*Standard International Trade Classification, Revision 2*, Statistical Papers, Series M, No. 34/Rev. 2 (United Nations publication, Sales No. E.75.XVII.6).

(when the Customs Nomenclature and the Minimum List were drawn up) and 1960, when equivalence between them was achieved, there existed two classifications related to international trade.

(i) *The Tariff Nomenclature*

This was put forward for adoption at the world level, an aim which was gradually achieved by countries individually and in groups, with the entry into force of the treaties creating the European Economic Community (EEC) and the European Free Trade Association (EFTA). "Among the factors which made it possible for both agreements to be concluded within a short period, mention should be made of the fact that the countries already had tariffs based on the BTN, a common language with which the experts involved in the drafting were familiar. A single reading of the EFTA Treaty shows that it was relatively easy for the seven countries which were members at that time to draw up a list of manufactured or processed goods covered by certain provisions of the agreement (principally concerning origin), customs treatment of which was defined on the basis of the BTN chapters and items. Moreover, GATT has specifically referred on many occasions to the need for all countries to possess comparable customs tariffs in the interests of easier tariff negotiations, and for the purposes of facilitating international trade it has recommended the adoption of the BTN."¹³

In the Latin American region, CEPAL organized the first meeting of the Working Group of Latin American Experts on Customs Questions in August 1960 to discuss the standardization of customs systems in our countries. One of the principal resolutions adopted recommended that Latin American countries should adopt the BTN in their national customs tariffs. This recommendation was immediately welcomed by the LAFTA Provisional Committee in a resolution adopted in August 1960, which designated the Brussels Nomenclature as the common basis for the presentation of statistics and the conduct of the negotiations provided for under the Treaty of Montevideo, as well as

expressing and interpreting the concessions granted by the contracting parties to one another as a result of those negotiations.

Thus, by that time more than 60 countries (apart from those in Latin America) had adopted the BTN in their national tariffs, or were in the process of doing so, with the consequent benefits for international trade.

(ii) *The Statistical Classification*

In contrast, the original SITC, which was the other classification widespread at that time, and which had been drawn up for statistical purposes, was not adopted on an international scale to the same extent as the BTN. On the contrary, while some industrialized countries used the original SITC to set out their foreign trade data, such information was no more than a complement to that which was regularly published by each country using its own national statistical classification, and was consequently incomplete or at least very out of date.

The Statistical Office of the United Nations has encouraged the use of this statistical classification by all countries, to help it to interpret developments in foreign trade. Its structure, consisting of 10 sections, is easily applied, as the SITC, in contrast to the BTN, is a classification which can be built up from smaller units into larger ones, as follows:

The five-digit items can be organized in groups by taking only the first three digits	+	(00000)
The three-digit groups can be organized in divisions by taking the first two digits	+	(00000)
The two-digit divisions can be organized in sections by taking the first digit	+	(00000)

and the 10 SITC sections can in turn be grouped in order to obtain totals for primary and manufactured products. In this way, the statistical classification is aimed at meeting the specific needs of economic analysis, taking no account of the needs of those working in the field of tariffs or customs, whereas the contrary is naturally the case for the tariff classification.

In the decade up to 1960 it was not easy for countries to set out their data using the original SITC, because there was no equivalence between the SITC and the national statistical classifications. As a result the SITC could not

¹³*La uniformación o coordinación...*, (CEPAL/E/CN.12/C.1/WG.3/2), *op. cit.*

be obtained through a mere regrouping of the data presented in accordance with the national statistical classifications: it would have been necessary to make a recompilation from the customs documents. This was a task which, naturally, very few countries were able to carry out, and they therefore limited themselves to publishing information based on the SITC for the higher levels of the classification (sections, divisions and groups). In most cases no data were available by items or by countries of origin and destination, and this was an obstacle to international comparability of the statistics.

As far as the Latin American countries are concerned, in the 10 years when the original SITC was applied (1950 to 1960), it was used only by the members of the Central American Common Market and Panama to set out foreign trade data. They were able to do so because previously, in 1953, the Central American Economic Co-operation Committee had approved the Uniform Central American Customs Nomenclature (NAUCA),¹⁴ based on the original SITC. However, the remaining countries in the region, which constituted a majority, had no data according to the original SITC, and this prevented comparability of infra- and extra-regional trade data.

There are good reasons for the coexistence of the tariff nomenclature and the statistical nomenclature, because they meet different needs. However, foreign trade statistics are collected by the customs administrations using the tariff nomenclature, and therefore when this nomenclature was based on the BTN, with no reciprocal one-to-one correspondence with the original SITC, it was very difficult to obtain statistical data.

This situation, with such statistical information as could be obtained grouped according to the tariff nomenclature of each country, prevailed until 1960.

The drawing up of NAUCA, and its adoption in 1953 by the members of SIECA, was an important event which merits comment in the light of present-day views on certain development of that time which, although known to those working in that field, could not then be interpreted properly.

In those years, the Statistical Office of the United Nations was endeavouring to promote the international comparability of foreign trade statistics by recommending that countries should adopt and use the SITC since, as already noted, the available data were published using national statistical classifications and were not comparable. As the national statistical classifications corresponded to the tariff nomenclatures of the countries concerned, many of which were based on the BTN, there were obvious limitations on the use of these data for the purpose of statistics and economic analysis. This led to a conflict between the advocates of the BTN and those who favoured the SITC. Those who considered that the most important objective was to achieve international comparability through the use of a classification which facilitated the analysis of trade flows advocated the use of the SITC, and even urged that it should be adopted as a basis for national tariffs. In that way it would be possible to ensure that the data compiled on the basis of customs documents would be more useful for statistical purposes. However, although this strategy bore fruit with the introduction of NAUCA, based on the original SITC, this merely confirms that the statistical classification depends on the tariff nomenclature. When the two coincide timely statistics may be obtained, and even when they diverge it is always possible to obtain data based on the customs nomenclature, although the statistics cannot be obtained as easily or as promptly.

It was perhaps this fact which prompted the Central American Economic Co-operation Committee to draw up and approve NAUCA, based on the original SITC, in 1953.

Subsequently, in order to ensure the uniform application of the Nomenclature, CEPAL, in co-operation with the Statistical Office of the United Nations and the Technical Assistance Administration, prepared a draft codification manual for NAUCA, which was approved by the Committee at an extraordinary session in San Salvador in May 1955.¹⁵

NAUCA was drawn up exclusively on the basis of the characteristics and requirements of

¹⁴Resolution 18 (AC. 17), adopted on 16 October 1953.

¹⁵*Nomenclatura Arancelaria Uniforme Centroamericana (NAUCA) y su Manual de Codificación* (E/CN. 12/420).

the external trade of the Central American countries and their trade policies.

It should be pointed out that, despite the substantial contribution made by the adoption of NAUCA in facilitating the Programme of Central American economic integration, certain shortcomings in the nomenclature became apparent when the programme reached the stage of harmonizing the customs tariffs of the member countries *vis-à-vis* third countries—in other words, the gradual development of a common external tariff. These shortcomings are due to the fact that, like the SITC, NAUCA classifies products principally on the basis of their degree of processing, grouping them into raw materials, semi-finished products and manufactures. However, when customs duties are to be studied and established for a specific product, either for one country or for a group of countries, it is necessary to take account at the same time of duties on other products connected with the same process of production. Thus, for example, in the case of textiles, it is necessary to bear in mind the tariff treatment given to the raw material (textile fibres), intermediate products (yarns) and final products (made-up goods). In the case of NAUCA, as for the SITC, this calls in most cases for a re-grouping of tariff items located in various different sections. In this regard experience has shown that the basic criteria of progressive classification followed in the BTN cover more broadly the practical situations which arise in classification for tariff purposes.

For these reasons, NAUCA has been abandoned, and in 1976 SIECA finalized the Uniform Central American Customs Nomenclature (NABCA),¹⁶ based on the BTN (which is now known as the Customs Co-operation Council Nomenclature - CCCN). Finally, the Uniform Central American Customs Nomenclature was given the title of NAUCA II.

There is another reason for the adoption of this approach by countries whose current tariffs are not based on the BTN: the reciprocal correspondence at item level between the BTN and the revised SITC which has existed since

1960 and has been maintained with the second revision of the SITC. As already indicated, the possibility of obtaining data classified according to the SITC from the BTN, and *vice versa*, has eliminated the conflict which previously existed between the two classifications, and there is now agreement concerning the importance of the specific purpose of each. However, it is also clear that the statistical classification was neither originated nor developed as an independent classification, but in fact has its origin in the tariff classification. If it is now becoming widely used, that is because in the meantime the tariff nomenclature based on the BTN had become generally used, and thus the former remains dependent on the latter.

(b) *Valuation of exports and imports*

The influence of the tariff nomenclature on the statistical classification is only one of the manifestations of the dependence of foreign trade statistics on the customs administration systems, which have a qualitative and quantitative effect on all statistical records. One of the most important of these effects concerns the valuing of exports and imports.

While the Statistical Office of the United Nations recommends that the basis of valuation of imports should be the CIF *transaction* value and the basis for exports the FOB *transaction* value,¹⁷ there are countries which have been recording customs values “required by customs law and procedures... designed for revenue purposes rather than for those of economic statistics and analysis... Strictly speaking, the term “value” in a customs context is more of a legal concept rather than an economic fact”.¹⁸

This influence may be illustrated by reference to the foreign trade statistics compiled and published by the Argentine Department of Statistics and Censuses for the years 1906 to 1941. In the case of imports the foreign trade year-books for that period indicated the tariff values laid down in 1906. The tariff values were the valuations made for the purposes of imposition of customs duties or taxes and bore

¹⁶SIECA, *Proyecto de Nomenclatura Arancelaria Uniforme Centroamericana basado en la Nomenclatura de Bruselas (NABCA)* (SIECA/76/FIA/2/CAN-2/II).

¹⁷*International Trade Statistics: Concepts and Definitions*, Statistical Papers, Series M, No. 52 (United Nations publication, Sales No. E.70.XVII.16), chap. III, para. 19.

¹⁸*Ibid.*, para. 3.

no relation to the transaction values or to the real market prices of imported merchandise, which were not compiled. On the contrary, the application of tariff values to imports meant that each tariff item was assigned a fixed price per unit, laid down in the scale of valuations, so that there were no changes in the unit values of each item over the 35 years, except when the tariff was modified.¹⁹ In other words, these statistics could not be used to determine the actual values which applied to the various imported products, nor were they of use for calculating indexes of import unit values, for example.

At around the same time, in Uruguay and doubtless in some other countries, tariff values were assigned to imports in order to help the customs administrations in their task of collecting the applicable duties, since at that time there was insufficient interest in the preparation of foreign trade estimates using other methods of greater use for statistics.

Mention might also be made of the valuation of imports carried out by the Peruvian Superintendencia General de Aduanas, which records the "CIF value for customs purposes", equivalent to 120% of the FOB value. This percentage includes an estimate of costs for carriage, insurance and commission up to the point when the merchandise is deposited in the customs warehouses.²⁰ Although when applying this method FOB transaction values are used, these values are surcharged by 20% for all products in order to determine CIF values for customs purposes, to which the *ad valorem* duties laid down in the scale of valuations are applied. Presumably this customs value must have produced greater tariff revenues, since it began to be determined many years ago, than those which would have applied if the real CIF value had been used as a base, as the real cost of transport and insurance at that time probably accounted for less than 20% of the FOB value.

¹⁹The Argentine scale of valuations established in 1906 was modified as from 1920 with a 20% rise in most items. In 1923 it was again increased, by 60%, and remained at this level until 1 July 1941, when the tariff values were replaced by commercial invoice values. See *El Comercio Exterior Argentino en 1943 y 1942*. Ministerio de Hacienda, Dirección General de Estadística y Censos.

²⁰*Anuario estadístico de comercio exterior, 1975, 1976, 1977*, Ministerio de Industria, Comercio, Turismo e Integración, Lima.

These examples explain how customs procedures fundamentally designed to promote the collection of revenue affect statistical records even when international definitions and recommendations exist which are designed to be of benefit to statistics. Moreover, it should be remembered that customs tariffs are first and foremost instruments of a country's economic policy, and as such act as regulator between the external sector and the production sector. Consequently, the functions relating to economic policy are more important than those relating to statistics and planning.

(c) *Variety of information and degree of detail*

The customs document is the source of the statistical record. Consequently, the data noted in it, even when not compiled, can constitute statistical information. Equally, the data it does not contain will be information lost to statistics. Accordingly it has a decisive influence both on the variety of the information which can be compiled and on the degree of detail, relating, for example, to partner countries, physical quantities or units, weight (gross or net), ports or customs offices of embarkation or disembarkation, means and nationality of transport used, cost of transport and insurance, and so on.

With regard to the importance and influence of the customs document in the compilation of statistics, it may be useful to quote several paragraphs from a review of concepts and definitions in international trade statistics submitted to the Statistical Commission at its most recent session.

"Recent developments, particularly the use of electronic data processing and efforts to simplify trade documentation and to expedite customs clearance procedures, have had, or will have, equally important effects on the system of compiling trade statistics. This is because, in some countries, the records taken from customs documents are increasingly being viewed as a data base which can be used to improve, among other things, the operation of customs. For example, information taken from customs documents may be used to control the flow of merchandise, to maintain financial accounts with agents or brokers and to support other administrative functions. Eventually, these documents may come to be regarded

as the source of a generalized data-base system, one of the by-products of which will be what we have come to know as trade statistics.

“The collection of data compiled from customs documents is used for a variety of purposes, ranging from the purely administrative to the statistical. These purposes place very different demands on the basic data. At one extreme are the administrative demands, such as the management of the customs and the application of its legislation. At the other extreme is the demand for statistics to be used in balance-of-payments or national accounts. Since the administrative uses usually require the identification of individual transactions or business firms, they typically demand more detail and precision than do purely statistical uses of the data.”²¹

This should serve as a warning to statisticians and planners that in the statistical programmes they plan to establish they should give thorough consideration to the data which can be collected from customs documents, since these ensure the regular and continuous compilation of information. On the other hand, if what is of interest is an item of information which is not recorded, it will be necessary to ensure that the customs documents cover it, so as to ensure that it is collected.

This was the objective of the LAFTA Advisory Commission on Statistics when it urged that the standardized customs document introduced by the Association for adoption by the member countries should bear in mind statistical requirements, which it regarded as being of vital importance for LAFTA.²²

At all events, it should be remembered that national tariffs have influenced the recording of quantities and the content of the information. Thus, all the countries where the tariff provides for the application of specific duties impose a tax on each product on the basis of a specific unit—so many units of national currency per kilo, per unit, per litre, and so on—and the statistical records of the products concerned

are noted in such specific units even when these are not the most appropriate from the statistical or economic viewpoint. For that reason, in many publications bananas are recorded in bunches or hands, and coffee in bags, rather than in terms of weight in kilos; cars and machinery in kilos or units; and so on.

2. Operational and marketing arrangements

We have seen how, in certain circumstances, various international recommendations on the compilation of statistics are not applied because they run counter to the administrative arrangements in the customs. While this factor is of course an important one, there are others arising from the marketing systems which also merit examination.

If it were assumed that the norms already laid down for product marketing do not determine the quality of the statistics (and if the influence of customs administration systems were likewise ignored), it might be expected that the international statistical recommendations would be accepted fairly promptly by the countries for recording foreign trade operations, thus ensuring international comparability in the long term. One might also expect, on the same assumption, that the application of the basic concepts and definitions to foreign trade statistics would foster the collection of statistics which would be useful for planning. For this purpose it would be sufficient for planners to participate in drawing up the international recommendations. However, this does not happen in practice. On the one hand, the planners do not participate at all in drawing up the recommendations, while on the other, even if the recommendations were of use for planning (and there are no grounds for supposing that they are not at present), the operational arrangements for foreign trade in some cases prevent the application of certain basic concepts and definitions, whether or not these are useful for statistics or for planning. Since the international recommendations do not always take account of the existing marketing systems, one might conclude that in some cases, the only way in which they could be applied would be through modification of the rules which govern the working of the market. However, it would

²¹*International trade statistics: a review of concepts and definitions. Report of the Secretary-General (E/CN.3/506), paras. 9-10.*

²²*Informe final de la cuarta reunión de la Comisión Asesora de Estadística (ALALC/CAE/IV/Informe), 17 June 1966.*

certainly be difficult to modify the norms prevailing in the international market and the trading machinery used by the countries. In view of this fact, it must be recognized that it is not feasible to make statistical records which reflect characteristics other than those corresponding to the foreign trade operation from which they arise. In practice, this situation has a much more serious effect on the statistical records of various countries than is commonly supposed, involving aspects related to valuation (especially in exports of primary products, such as oil, minerals and bananas), the identification of partner countries, recording of imports of semi-manufactured articles for finishing and subsequent return to the country of origin, and so on.

A few examples will serve to furnish greater detail concerning this aspect. The recommendation of the Statistical Office of the United Nations, to the effect that the *FOB transaction* value should be recorded for exports—which, in addition to being logical, appears to be very simple and easy to apply—contrasts with the method of valuation used by Bolivia in the case of mineral exports. “The problem arises as a result of the fact that Bolivia possesses no foundries or smelting plants for the various minerals, among which tin is of particular importance. Consequently, valuation of minerals depends on two variables: the metal content of the ore being exported, and the international price of the metal. The statistical value published in the year-books is obtained from export certificates, and is based on analysis of the metal content carried out by the Bolivian exporter, and on the price of the metal in the consumer market (the United States or the United Kingdom) at the time of export. However, application of the consumer market price to exports constitutes a valuation at CIF values, since the prices paid by the importer apply to products delivered to him in his country. Consequently, exports of minerals are valued on a CIF basis. Nevertheless, it should be pointed out that the value recorded in the statistics, which is obtained in the manner described above, is not the actual or transaction CIF value, since the real sales value of exports of minerals can only be ascertained later, when the importer in the United States or the United

Kingdom sends the *account* indicating the metal content of the ores after they have been smelted and the international price prevailing at the time. In this way, the actual transaction value differs from the statistical value because of differences in the two variables which go to make up the export value. There is a difference in the analyses of the metal content carried out by the exporter and the importer; and there is a difference in the prices prevailing at the time of export and of import. Since the transaction value applies to the analysis and the price allocated by the importer, the statistical value should be replaced by the actual transaction value recorded in the importer’s account, from which it is also possible to ascertain the deductions for transport and insurance of the minerals so as to determine details of the exports on an FOB basis. However, in practice neither the Dirección General de Estadística y Censos nor the Central Bank possess these accounts.”²³ As a result, these exports are valued on a CIF basis, and the values applied are not actual or real values. This situation affects other countries which export minerals under similar marketing arrangements, leading to subsequent revisions of the values recorded in their official publications. The same is true of agricultural products, such as bananas, for which the statistical values published by the exporting countries are subject to revision to bring them into line with the transaction values.

Of particular importance because of their size are oil exports from Venezuela, which up to and including 1975 were valued on the basis of the system of concessions granted to the oil companies. The export values of petroleum and petroleum products recorded by the Venezuelan Dirección General de Estadística y Censos (DGEC) were based on a reference price per barrel exported which was specified for tax purposes so as to secure a share in the revenues generated by the oil industry; however, these values differed from actual values,

²³“Informe de la misión de asesoramiento en la Dirección General de Estadística y Censos de Bolivia sobre Comercio Exterior”, mission report by Mario Movarec, CEPAL Statistics Division, August 1967.

with the difference reaching almost 40% in 1974.²⁴

The problems posed by these valuation methods, which, moreover, in this case only reflect the way in which oil is marketed, loom very large in analyses based on official statistics.

On the one hand, in order to obtain detailed data on petroleum products (fuel oil and diesel oil, kerosene, gasoline, lubricants, and so on) in volumes and values by country of destination, it is necessary to refer to the foreign trade statistics published by DGEC, even though it is known beforehand that they include values for tax purposes, since such detailed information cannot be obtained from other sources. The Central Bank of Venezuela, in its balance-of-payments figures, records the value of exports at sales prices, but only for crude petroleum and petroleum products as a group, without itemizing the products by quantity, or, naturally, by country of destination. As a result, those who are not familiar with the valuation methods used may commit errors in the handling and use of this information.

Oil is of such current importance, and such serious difficulties have arisen in Venezuela in compiling statistics on it, that DGEC has published year-books for the years 1973 to 1977²⁵ excluding from exports petroleum and petroleum products and iron ore, the latter because it too is marketed through a system which makes proper valuation difficult. Thus, because of valuation problems caused by the marketing system, the publications mentioned contain no data on products which account for 95% of the total value of the country's exports.

These examples will suffice to explain why, however simple they may be, the international recommendations cannot always be applied even when the countries agree that they are useful and necessary.

²⁴The reference price of crude petroleum and petroleum products in 1974 was US\$ 14.35 a barrel, while the sales price was US\$ 10.53. Exports of crude petroleum and petroleum products were valued for tax purposes at US\$ 14,669 million, while their sales price came to US\$ 10,762 million.

²⁵Dirección General de Estadística y Censos, Caracas, *Estadísticas del Comercio Exterior de Venezuela, resumen anual 1972-1973, 1974-1975, 1976 and 1977.*

3. *The requirements of international comparability*

We have mentioned that foreign trade statistics, more than those in any other sector, demand uniform development at the international level. This is due to the fact that for every commercial transaction carried out by one country there is another transaction as its counterpart, so that information is needed on the bilateral and total trade of both countries. This can be explained using a very simple example. Let us take exports of wool from Uruguay to the United States in a given year: at first sight it would be sufficient in order to obtain this information to secure an official publication from either of the two countries —the export section of a Uruguayan foreign trade year-book, or the import section of a United States foreign trade year-book. However, although data relating to bilateral trade could be obtained from either of the two sources (ignoring in this case the inevitable discrepancies between the two records), and assuming that the Uruguayan year-book is used, more information will undoubtedly be needed for more thorough analysis of this bilateral transaction. It will be needed, for example, in order to ascertain from which countries apart from Uruguay the United States imports the same product, and consequently a United States source will be needed in addition to the Uruguayan source. To take the example further, it is very likely that the United States year-book will indicate that the most important supplier is Australia; and this will make it necessary to consult yet another external trade publication, from Australia in this case, in order to find out to which countries it exports the product, how much it exports, what is its unit value, and so on. Thus in order to obtain all this information, it is not sufficient to possess the publications in question; in addition the information they contain must be comparable. It must be comparable in presentation, in the product classification and in the basic definitions and recording systems prevailing in the countries.

It is with the specific purpose of facilitating the use of foreign trade statistics at the world level on a basis of comparability that the Statistical Office of the United Nations has since 1963 regularly published foreign trade

data, by countries, using the revised SITC.²⁶

The problems caused by the non-comparability of statistics were recognized by the League of Nations in the International Convention relating to Economic Statistics, signed in Geneva in 1928.²⁷

At the international level, "some of the more fruitful analyses of trade statistics start from a matrix of world flows of commodities. But in order to construct such a matrix, international standards are required both for the conceptual framework of the statistics and for their classification into commodities. This need for uniformity extends to the greatest levels of detail when the data are used for international negotiations on customs duty rates, as in the General Agreement on Tariffs and Trade". In recent years "not only has interest in bilateral comparisons of international trade statistics as published by partner countries been heightened but the capacity to display detailed statistical comparisons on a bilateral or even multilateral basis has increased many-fold. For example, since 1974 the Statistical Office has published matrices at the three-digit level of the Standard International Trade Classification (SITC), Revised, in volume II of the *Yearbook of International Trade Statistics*. These matrices show how, for each pair of partner countries and for each of the three-digit categories of the SITC, statistics that should be identical (from a conceptual point of view) differ at times by unacceptably large margins. Several countries have carried out studies in which their trade statistics are systematically compared with the counterpart statistics of some of their more important trading partners. For example, Malaysia has compared the statistics on its trade with the Federal Republic of Germany and Japan with the statistics published by those two countries. The Netherlands has drawn up plans to compare its statistics on trade with the Federal Republic of Germany with the counterpart data".²⁸

But the first break-through in this field was a thorough and complete study of discrepan-

cies in trade statistics conducted by a joint Canada-United States team.²⁹

In general terms, this frequent need to refer to national sources is at the root of the long-standing interest in enhancing the comparability of statistics. The natural agency for this purpose has been action by international bodies, which have striven to foster this development both regionally and internationally.

4. *The influence of the regional integration processes*

There can be no doubt that economic integration agreements have promoted a substantial general improvement in statistics in the participating countries. Which statistical areas have benefited from such advances has depended on the scope and breadth of the integration movements involved. Thus, the establishment of the European Economic Community has led to an appreciable improvement in statistics in all sectors of economic and social activity in the member countries, prompted by the fact that the EEC has been entrusted with special powers and duties by its members as regards the task of obtaining and supplying the statistical information required for the economic integration process.

None of the economic groupings set up in Latin America have the same scope or scale as the EEC. Consequently, such improvements in statistics as may have been stimulated by the integration agreements in our countries cannot be discussed in the same terms as those in the European countries, especially if one compares the various sectors of economic and social statistics. At all events, however, while the results obtained in each continent differ, they have in common a vital tool for fostering the improvement of statistics: the fact that such bodies are authorized to introduce and develop in the various countries statistical programmes designed to meet the information requirements imposed by integration.

This authorization has been granted because of the need to evaluate advances in the

²⁶*Commodity Trade Statistics*, Statistical Papers, Series D.

²⁷*International trade statistics...* (E/CN.3/506), *op. cit.*, para. 1

²⁸*Ibid.*, paras. 11 and 3.

²⁹*The Reconciliation of United States-Canada Trade Statistics, 1970* (Ottawa, United States-Canada Trade Statistics Committee, 1973).

integration process, which obviously raises a need for more statistical data than are traditionally available. The statistics thus obtained have to meet certain requirements in order to be useful for such purposes:

(a) There is stricter application of the uniform basic concepts and definitions by the member countries in order to comply with the greater requirements for subregional comparability.

(b) There is a greater variety of more detailed information for each statistical sector.

(c) This encourages the use and adoption of uniform basic documents for recording information; the application of uniform statistical and economic classifications; the use of uniform codifications; and the standardization of methods for checking and monitoring information in each country.

As a result of these circumstances progress has been achieved in statistics in the member countries at all stages of the process of compilation, making it possible for statisticians to introduce constructive initiatives through the executive role played by the technical secretariats of the integration bodies.

The statistics which have benefited most from this influence in our region are undoubtedly foreign trade statistics. SIECA, LAFTA, the Andean Group and CARICOM, in order of establishment, have helped to improve these statistics to a greater or lesser extent, depending on the objectives laid down in the agreements involved. Thus SIECA "has progressively built up a substantial data bank, a rich collection of statistical information from the five Central American Common Market countries and Panama. The data bank is available to users through periodical publications: the *Anuario Estadístico Centroamericano de Comercio Exterior*, the *Serie Estadísticas Seleccionadas*, *Integración en Cifras* and others, such as the *Compendio Estadístico Centroamericano*"³⁰, which includes comparable data from the six countries on the following topics: physiography, demographic situation, agriculture, industry, foreign trade, transport and communications, balance-of-payments and national

accounts, public finance, money and banking, prices, public health, social security and education.

As far as LAFTA is concerned, in 1961 CEPAL, which was providing advisory services to the Association in the statistical field, proposed the establishment of a Centre for the Tabulation of Foreign Trade Statistics, based on the supply of information by member countries using punched cards.³¹ The proposal was discussed at the first meeting of experts on foreign trade statistics, held in Montevideo in January 1961, which recommended:

— That an automated punched card system should be set up using standard cards showing brief information, which the member States of LAFTA would undertake to supply;

— That the cards should be obtained through a process of mechanical reproduction, using for the purpose the punched cards used by the national bodies concerned to prepare foreign trade statistics;

— That uniform codes should be adopted for reporting countries, partner countries, periods and means of transport.

Concerning product classification, the member States would provide statistics on their foreign trade using the adaptation of the Brussels Tariff Nomenclature for statistical purposes introduced in 1960 by the Customs Co-operation Council of Brussels, thus ensuring correspondence with the revised SITC.

This led to the establishment of the LAFTA Statistical and Data Processing Service, now equipped with a computer to process data recorded on magnetic tape, which the countries have been supplying for several years in place of the punched cards. This information constitutes the basis for a statistics dissemination programme involving:

— Quarterly cumulative lists of foreign trade statistics by partner countries.

— Half-yearly lists (advance figures) of total exports and imports by BTN subheadings, in kilograms and US dollars. Imports from within the area are broken down into "products which

³⁰SIECA, *VI Compendio Estadístico Centroamericano*, 1975, Guatemala.

³¹CEPAL, *Sistema de mecanización en las estadísticas de comercio exterior*, Documento informativo N° 28 de la ALALC presentado en la Primera Reunión de Expertos en Estadísticas de Comercio Exterior. Montevideo, January 1961.

have been the subject of negotiations” and “others”.

— Publication of three statistical series: Series A-Exports; Series B-Imports, and Series C-Imports from within LAFTA.

In 1962 the LAFTA Advisory Commission on Statistics (CAE) was set up³² with the following duties:

(i) to ensure the proper functioning of the Centralized System of Statistics;

(ii) to organize exchanges among members, and with the Secretariat, of information and technical experience on problems involved in the preparation and presentation of statistics which are relevant to the functioning of LAFTA; and

(iii) to co-operate with the Committee's Statistical Service in ensuring that the Association has statistical facilities in keeping with its needs.

The CAE is made up of two representatives of each of the contracting parties, who must hold senior posts in government bodies in the field of statistics, and the Statistical Service of the LAFTA Executive Secretariat, which is responsible for co-ordinating the work of the Commission. The CAE meets once or twice a year when expressly convened by the Standing Executive Committee; its meetings are attended by representatives of each of the contracting parties, accompanied by such advisers as they consider necessary.

In short, the CAE has become responsible for guiding, co-ordinating and supervising the supply of data on total foreign trade and trade within LAFTA, thus ensuring the proper oper-

ation of the Association's centralized system of statistics.

The Commission of the Cartagena Agreement, for its part, set up in 1977 a subregional statistical information system covering three statistical sectors: agriculture, foreign trade and manufacturing.³³ The purposes of the system are as follows:

(i) to ensure that the member countries (Bolivia, Colombia, Ecuador, Peru and Venezuela) and the Board compile information using a uniform model and time-table based on common definitions and methods;

(ii) to secure the standardization and simplification of documents and other means of compilation used, thus guaranteeing comparability of the data and permitting their analysis; and

(iii) to ensure the continuous provision of statistics and special information as available, leading to the eventual creation of a subregional centre for the collection and dissemination of basic statistical information.

By the same Decision 115 the Commission set up the Council on Statistics, with the role of advising the bodies set up under the Agreement, in all matters relating to the harmonization of statistics in the subregion.

In short, the programmes established by the regional economic groupings to ensure the availability of appropriate statistics for integration have stimulated the development of such statistics and prompted the creation within the groupings of official bodies which will ensure their improvement in the future.

³²By resolution 15 of the LAFTA Standing Executive Committee.

³³Decision 115 of the Commission of the Cartagena Agreement.

III

Participation by Statisticians and Planners in the Development of Foreign Trade Statistics

In the preceding section an attempt was made to explain the role played by the four factors which are considered to be the main influences on foreign trade statistics. A few examples were given to demonstrate how negative their impact on statistics can be, especially in the case of systems of customs administration and operational arrangements. However, nothing could be more mistaken than to deduce from these examples that the factors mentioned have only harmful effects on statistics; in reality, they have also made a substantial contribution to their improvement. In this article we cannot set out in detail the nature and extent of this contribution, but a brief mention must be made of its essential features. In the first place, the monitoring of all foreign trade operations by the customs means that these statistics must be genuine and reliable; in addition, in recent years the administrative arrangements of the customs themselves have fostered the application of the internationally agreed basic concepts and uniform definitions. Secondly, the administrative systems under which foreign trade statistics fall make it possible to obtain the data promptly, provided of course that the administrative organization is sound. When we add the beneficial influence of the other factors studied—the requirements of international comparability and the regional integration processes—this explains the progress achieved in the corresponding statistics. However, an effort should be made to determine whether the progress achieved so far is attributable to deliberate efforts at improvement by planners and statisticians, or whether the statistics have simply been ‘carried along’ by the factors mentioned above, either in a favourable or in an unfavourable direction over time.

1. *The absence of the planners*

Throughout the long period since foreign trade statistics began to be compiled systematically, planners have played no role. This conclusion

is prompted by the fact that planners have not been involved in any of the four factors which have a decisive influence on statistics. They did not participate in drawing up the administrative standards which govern customs, nor in the operational systems applying to foreign trade. They had no influence on the statistical requirements of international comparability or regional integration, although they may have participated actively in the actual process of integration. The fact is that, since the requirements of integration are very specific, all the programmes being developed, from data compilation to publication, are principally aimed at evaluating the results stemming from the integration agreements. While it can be argued that information which is useful for integration is also useful for planning, it is undeniable that planners have put forward no initiatives designed to encourage the production of statistics useful for their purposes. Consequently they have been involved only to the extent of becoming the principal users of statistical information. However, it should be borne in mind that “meeting needs of a general nature often involves filling gaps or improving statistics in specific areas. As a result, national statistical planning makes it necessary for these two dimensions of the statistical product, the detailed and the broad and general, to be considered simultaneously”.³⁴ However, this has not happened in our countries. What has most been needed from planning has been the planning of statistical development. Ultimately “development planning is a deliberate process of economic and social change. Consequently, its pace and direction can be determined, supervised and regulated. Determining, supervising and regulating this process demands a consid-

³⁴See the summary of the paper on “Organización por temas y funciones” prepared by Simon A. Goldberg, Director of the Statistical Office of the United Nations, New York, in *Informes y Procedimientos del Seminario Interregional de las Naciones Unidas sobre Organización Estadística*, Ottawa, 3-12 October 1973, p. 21, para. 23.

erable stock of reliable and objective information, and access to it. This information should first and foremost be quantitative in nature".³⁵

Regrettably, not only have planners lacked interest in the development of statistics, but in addition, when success has been achieved in fostering their improvement, detailed and specific matters have not been planned at the same time as broad and general ones. Proof of this is the commitment made by the member countries of LAFTA in the Advisory Commission on Statistics concerning the supply of data on trade within LAFTA. For these purposes it was agreed that, starting in 1962, imports from within LAFTA would be recorded using the LAFTA Customs Nomenclature (NABALALC). This nomenclature was adopted as the common basis for the presentation of statistics and the conduct of the negotiations provided for in the Treaty of Montevideo, and for the expression and interpretation of the concessions granted by the contracting parties to one another as a result of those negotiations.³⁶

However, NABALALC, which is very detailed and has many items which are mainly of interest for the member countries, is applied only to imports from within LAFTA. Trade outside LAFTA is recorded using the BTN-SITC, which is more general and does not permit comparison with NABALALC. In efforts to implement the LAFTA Trade Liberalization Programme through negotiations, NABALALC was extremely useful. However, those who endeavoured to determine the degree to which the concessions agreed between the contracting parties were taken up realized that it was difficult to carry out such studies: "The principal limitation at present on determining to what extent the concessions agreed have been taken up is the fact that imports of the products which were the subject of negotiations in the liberalization programme cannot be compared

with imports of the same products from countries outside LAFTA effected by the member countries. This comparison is regarded as extremely important, since it would furnish a basis for examining to what extent LAFTA exporters are exploiting existing demand in the remaining countries of the region, and would consequently make it possible to identify how much use has been made of the concessions. The fundamental obstacle to the comparison is the fact that the statistics on *imports of products which have been the subject of negotiations* are given at NABALALC item level, while statistics for products from outside LAFTA are identified at the BTN-SITC position level. In view of the importance of the problem, it would be desirable for the specialized bodies in each of the countries to study it thoroughly and ... initiate action to solve it".³⁷

This limitation, recognized by the LAFTA secretariat more than 10 years ago, has not yet found a solution. A study of why this problem, which is of such vital interest for LAFTA, has not yet been solved, may be useful in reinforcing the arguments set out in this article concerning the influence of the factors mentioned above on statistics. While all of them have an influence, some are more important than others, so that even if one factor tends to have a positive influence, another may cancel it out. In the case being examined here, the creation of NABALALC and its limited application to trade within LAFTA was due to the positive influence of LAFTA, since the objective was a classification covering the specific products on which the member countries wished to conduct negotiations. For that reason the LAFTA Customs Nomenclature, which is based on the BTN, is divided into 21 sections, 99 chapters, 1,096 positions, 1,167 subpositions and about 6,000 items.³⁸ The large number of items included is due, as already noted, to the fact that the nomenclature was designed on the basis of the product coverage of the liberalization programme, which is certainly very detailed.

³⁵See the summary of the paper on "La Planificación del Desarrollo y la Organización Estadística" prepared by S. S. Heyer, Director of the Central Bureau of Statistics, Nairobi, in *Informe y Procedimientos del Seminario Interregional de las Naciones Unidas sobre Organización Estadística*, *op. cit.*, p. 45, para. 3.

³⁶See *Nomenclaturas arancelarias y clasificaciones estadísticas del comercio exterior* (E/CN.12/L.100), prepared by the CEPAL secretariat for an international seminar on statistics held in Berlin in September 1973.

³⁷*Programa de liberación del intercambio, bases para determinar el grado de aprovechamiento de las concesiones pactadas entre las partes contractantes*, Asociación Latinoamericana de Libre Comercio (Montevideo, 1972), vol. I, p. 12.

³⁸For further details concerning the drafting, approval, application and improvement of NABALALC, see *Nomenclaturas arancelarias ...* (E/CN.12/L.100), *op. cit.*

However, at that time the customs nomenclatures of each of the countries differed from NABALALC, and had no entries corresponding to most of its items. Each country therefore had to make a special and independent compilation of statistics on trade within LAFTA on the basis of NABALALC using customs documents and supply the statistics data to LAFTA, even though NABALALC was not the normally applicable customs nomenclature. It was not possible to extend this effort to trade outside LAFTA, however, because each country applied another customs nomenclature which corresponded to BTN-SITC, and data on total foreign trade (within and outside LAFTA) continued to be compiled on the basis of the latter. Compiling data on trade outside LAFTA using NABALALC would have meant compiling foreign trade statistics twice in each country, and no-one could accept this double burden.

The lack of foresight concerning the limitations from which NABALALC would suffer because it applied only to trade within LAFTA became apparent only several years after its introduction, and this is further evidence of the absence of planners from the whole process. It also shows that there is good reason for assigning the systems of customs administration first place among the influences on statistics, since the compilation of data is carried out using the prevailing nomenclature, so that it is very difficult to obtain data in terms of another classification. Indeed, even the full weight of LAFTA's influence was insufficient to secure this information, simply because its purpose was purely statistical.

The foregoing, in addition to confirming that planners have to date not played a role in statistical programmes, raises a major question concerning how successful their participation might be in the future, since there is no doubt that the obstacles which originate in the systems of customs administration and the operational arrangements will persist, as many of them cannot be overcome however determined the planners may be to participate in the development of statistics.

2. *The failure of the statisticians*

It is no simple matter to decide whether or not the contribution of statisticians has been decisive in the progress of statistics. What success

may have been achieved cannot be attributed exclusively to them, since it has already been pointed out that, on various occasions, other elements are also important. The same occurs with statistics for other sectors, since "the present organization of statistical systems in developing countries is more often the product of circumstances than the result of a deliberate decision by statisticians".³⁹

Consequently, it would be very useful to determine what circumstances or factors play a role in each of the other areas of economic and social statistics, so that action by statisticians can be guided on a sound basis to avoid the danger of "tilting at windmills".

It should also be borne in mind that "important problems are not always of a technical nature. Complicated administrative problems frequently hinder the adoption of the technical solution best suited to the conditions encountered by statisticians in the developing countries. The recurrent nature of these problems indicates the existence of certain profound causes at the root of the difficulties".⁴⁰

In accordance with the above, if it is recognized that the work of statisticians is limited by the conditions imposed by the factors from which the statistics are derived, and by the existence of complicated administrative problems which militate against an appropriate technical solution, then it must be admitted that in order to counter these effects statisticians should play a preponderant role in technical and operational matters so that the other factors may be overcome. However, the action they can take in their countries lacks the force required to surmount these obstacles: "the role played by the technical statistician and his status depend on various factors and on the importance attached to statistical work in the country".⁴¹

³⁹See the summary of the paper on "Centralización o descentralización de sistemas estadísticos", prepared by Jean Ripert, Director-General of the National Institute for Statistics and Economic Studies, Paris, in *Informe y Procedimientos del Seminario Interregional de las Naciones Unidas sobre Organización Estadística*, *op. cit.*, p. 3, para. 1.

⁴⁰See the summary of the paper on "Organización por temas y funciones", *op. cit.*, p. 26, para. 40.

⁴¹See the summary of the paper on "Reclutamiento, capacitación y 'status' del personal estadístico", prepared by Tulo Montenegro, Secretary-General of the Inter-American Statistical Institute, Washington, D. C., in *Informe y*

Insufficient importance is attached to statistics in most of our countries, and inadequate status given to statisticians, so that they lack influence. Indeed, status "implies in some way the explicit or implicit recognition of the contribution of such staff and the granting to them of appropriate working conditions and salaries, security of employment and career prospects".⁴²

The most concrete evidence of the importance a country can attach to statistics is the allocation of adequate resources (financial, technical and personnel) for the smooth development of this activity. In this regard "even though, in some countries, the allocation of financial resources reflects shortcomings in the planning of activities, the statistical budgets frequently fall below the level required to perform statistical tasks".⁴³

In these circumstances, it cannot be expected that the contribution of statisticians will have a decisive effect on the progress of statistics. Nevertheless, their contribution has been a valuable one, and has played a substantial role with regard to programmes in which progress required international comparability or comparability between different regional economic groupings.

On the basis of the experience which can be gained from the activities of statisticians within the integration processes, it is possible to sketch out their participation in the future statistical programmes it is wished to promote, especially when such programmes are closely linked with the systems administered by the customs authorities. The most important of these activities occurred within LAFTA in 1966, when the Advisory Commission on Statistics held its fourth meeting at the same time as LAFTA convened a meeting of the Advisory Commission on Trade Policy, made up of customs experts. The two meetings were organized to discuss the adoption of the standardized customs document. This was a project of great importance, since the aim was the standardization and unification of the customs and

non-customs documents used in import and export operations, taking account of statistical needs. The CAE, which attached due importance to this recommendation, included in the agenda of its fourth meeting a special item relating to the study of all these needs.⁴⁴

It may well be that until then there had never been a better opportunity for the improvement of foreign trade statistics. All the conditions were favourable: national experts in statistics and customs techniques were meeting simultaneously as official representatives of their countries to discuss the adoption, in the 11 member countries of LAFTA, of a uniform customs document to include such statistical information as the CAE experts might decide upon.

The fact that this task was entrusted to the CAE furnished the statisticians with a rare opportunity to assert their viewpoint for the benefit of their speciality.

Moreover, to a certain extent statistics were coming to represent the principal objective of the administrative process within the customs.

Consequently, the following items of information were included in the standardized customs document for statistical purposes:⁴⁵

- Means of transport
- Flag and nationality of means of transport
- Place of embarkation of the merchandise
- Country of origin of the merchandise
- Source of the merchandise (country)
- The CIF value, broken down as follows:
 - FOB value
 - Shipping costs
 - Insurance premiums
 - CIF value
 - Gross weight in kilos (KB)
 - Net weight in kilos (KN)
 - Other physical units apart from KB and KN.

Procedimientos del Seminario Interregional de las Naciones Unidas sobre Organización Estadística, op. cit., p. 32, para. 12.

⁴²*Ibid.*, p. 29, para. 1.

⁴³*Ibid.*, p. 33, para. 16.

⁴⁴"Informe final de la cuarta reunión de la Comisión Asesora de Estadística", *op. cit.*, p. 19.

⁴⁵A complete list of the data and information of an essential nature which should appear in the uniform customs document appears in "Informe final de la primera reunión del Grupo de Expertos de Política Comercial" (ALALC/CAE/CAPE/GE/T/Informe, 22 June 1966).

Although these and other items of useful information for statistical purposes were included in the standardized customs documents, the ambitions of the CAE representatives went much further, since there was agreement that the principal objective which should be pursued in any administrative process was that of facilitating the timely and reliable compilation of statistics. This gave rise to an initiative which might well be regarded as the first and possibly the only attempt in our region to free foreign trade statistics from the domination by the customs to which they were made subject more than 1,000 years ago when the tariff was introduced: the CAE suggested that the uniform certificate devised by the customs experts should be replaced by another which the statisticians presented "bearing in mind the fact that efficiency, speed and productivity in the various stages of the collection of statistical data require a document which is designed taking into account the complex process of compilation ... Consequently, we attach a preliminary draft certificate which meets the statistical requirements".⁴⁶ The certificate devised by the CAE to replace the one proposed by the customs experts contained adequate provision for the codification of all statistical information in order to facilitate compilation, and reduced the space allocated for customs use. The customs experts reacted immediately, rejecting out of hand the proposal to change the design of *their* document, since they felt that statisticians had no authority to revise a document destined for customs use.

"The immense difficulty of making changes in the design of the source documents or of implementing specific changes in processing discourages statisticians from attempting to alter the data at the source."⁴⁷

Anyone who is interested in statistics and sincerely believes, as the CAE representatives did at that time, that fostering the compilation of statistics should be a primary objective, must bear in mind that for various reasons the necessary conditions do not always arise, especially when they are dependent on, and are a by-

product of, administrative systems such as the customs. The failure of the statisticians on the occasion in question testifies to this fact.

Regarding the action they may take in the future, one may safely say that the improvement of such statistics is less the task of statisticians and planners than an undertaking which is dependent on a variety of factors and circumstances, some of which, such as those analysed above, are of such force and influence that they may be more decisive than the action of these professionals.

3. *Have statistics improved?*

Before answering this question we must first make it clear that we do not intend to conduct a comprehensive examination of the progress achieved by our countries with regard to their foreign trade statistics, but merely to define the most important aspects so that we can decide whether or not, in general terms, an improvement has occurred. In view of the fact that the utility of statistics depends on their being as up to date and reliable as possible, progress may occur in the following fields:

- Timeliness
- Veracity
- Coverage
- Range and detail.

These aspects in turn depend on the fact that a statistical record may or may not originate in an administrative procedure; this is one of the factors accounting for the greater or lesser timeliness, reliability, completeness or range of statistics for any given activity. It should also be remembered that the administrative recording of an item of information is not of interest only to the State, local or tax administration, but may also be of interest to an individual, for example, when the birth of a child is registered in order to obtain a birth certificate for the purpose of collecting a family allowance.

If the statistical records are related to tax, customs, currency or other controls, they contribute to their own veracity because of the monitoring process involved; if there is no such link, and the data are obtained through censuses or surveys, their level of veracity or reliability may be lower.

Although timeliness is a characteristic required of all statistics, this applies to a greater

⁴⁶*Informe final de la cuarta reunión de la Comisión Asesora de Estadística, op. cit.*, pp. 22-30.

⁴⁷*Estadísticas del comercio internacional ... (E/CN.3/506), op. cit.*, para. 13.

degree to statistics of administrative origin, since they refer to short periods of time. A census, in contrast, is carried out every so many years, since in many cases the variables being measured do not change appreciably in the short run, and the data for the intercensal years may be determined very roughly using statistical methods.

With regard to statistics on the external sector, the present situation as regards the principal aspects is as follows.

Timeliness is a condition of prime importance which must be met by foreign trade statistics precisely because of their short-term nature. Any study carried out with a view to improving them must attach prime importance to this aspect. In this regard, the amounts of time needed before information is made available in Latin American countries may be said to be highly unsatisfactory, with a few exceptions. Thus, least progress has been made in the most important aspect, since even the most up-to-date foreign trade year-books are not available until 18 to 24 months after the period to which the data apply, and the delay is still greater for most countries.

As regards *veracity*, statistics on the foreign sector are subject to checks through various strict administrative procedures:

(i) monitoring of export and import records or permits by central banks or other appropriate bodies;

(ii) exchange control and preparation of the balance of payments carried out by the same bodies;

(iii) supervision by customs.

These checks have helped to ensure that data on the foreign sector have become increasingly reliable, except, as has been explained, where customs procedures and operational arrangements do not permit this. However, in general the veracity of foreign sector statistics must be acknowledged.

The question of *coverage* sets foreign trade data apart from other statistics. The former co-

ver the entire statistical universe during any period by including all products and all partner countries with which trade is carried out. They differ from other statistics because "they present virtually no problems of sampling or response or opportunities for questionnaire design and may, therefore, be of limited interest for the professional statistician".⁴⁸ They are therefore sufficiently complete to be used for any purpose.

Finally, concerning *range*, the broad and detailed nature of the data on which they are based means that foreign trade statistics can also be very detailed.

In short, progress may be regarded as satisfactory as regards reliability, coverage and detail, but not as regards timeliness.

While the causes of delays in the compilation and presentation of year-books or equivalent publications may vary from one country to another, it is possible that this is basically due to an insufficient allocation of resources and inadequate administrative organization, predominating over technical statistical aspects, so that however favourable these aspects may be, the results may be clearly unsatisfactory.

We may conclude that the improvement achieved in statistics on the external sector has largely been due to the influence of the factors examined at the beginning of the article, and it cannot be attributed to deliberate action by planners and statisticians. Moreover, this progress has not been achieved within a general context of statistical development. The result is due simply to the fact that attempts were made to meet special requirements for which no provision was made in any statistical system, however broad and consistent. Since the information involved is very specific, it exceeds the capacity of any statistical system.

⁴⁸*Estadísticas del comercio internacional ...* (E/CN.3/506), *op. cit.*, para. 13.

On the Article by Raúl Prebisch “Towards a Theory of Change”

*Comments by Gert Rosenthal**

Introduction

In Latin America there is nothing new about the debate between those who advocate the optimal allocation of economic resources through the market mechanism and those who prescribe different degrees of State intervention to remedy alleged shortcomings in that allocating mechanism: “the invisible hand” versus “State control”. In recent years, the discussion has become fiercer and more polarized, perhaps owing to the ineffectiveness of several moderately reformist programmes tried out during the 1960s in the favourable conditions created by the so-called “Alliance for Progress”.

On the one hand, no doubt influenced by the achievements of the Cuban revolution, at least in the sense of having created an egalitarian society in less than a generation, there is a growing number of those who favour transferring the means of production to the State and planning the economy in the light of specific objectives. On the other hand, the number of adepts of economic liberalism is likewise swelling, so much so that in recent years certain circles have apparently rediscovered the neo-classical theories and have applied them most enthusiastically in some countries. Of course, these proponents of economic liberalism represent quite a broad spectrum, with variations in the degree of freedom with which the market mechanism is supposed to function. Thus, in almost all countries there are now influential persons who attach so much importance to that mechanism that they almost regard it as an object of veneration.

These two opposing economic viewpoints have their counterparts in political theory, and this has greatly exacerbated the argument. In all the confusion and mutual recrimination, more moderate economic approaches have been overshadowed, and sometimes altogether

silenced. These cover a range of intermediate options, and certainly include the set of reformist approaches put forward by the CEPAL secretariat, with shifts in emphasis over time and for each particular case in Latin America.

The supporters of these three approaches—liberalism, reformism and the centrally-planned economy—all argue that they have the best answer for speeding up economic and social development. Which of them is right? It is difficult to reply, because unfortunately the social sciences—including those concerned with economic and social development—unlike the natural sciences do not provide precise formulae. It may be that there are different ways of achieving the development of the same country, or that an approach which is acceptable for a country with a given set of characteristics is not suitable for another. In any event, the adherents of these three approaches have shown extraordinary intolerance towards one another, in the conviction that theirs is the best solution, and this has certainly hindered constructive dialogue.

Worst of all, each group is so sure of being right that it does not even take the trouble to analyse critically the other approaches, perhaps in the belief that its own convictions are based on theories so self-evident that the others are not even worthy of comment. This is at least the impression given by the relative silence of the CEPAL secretariat on the increasing popularity of neo-classical approaches. Thus the application of such approaches in some Latin American countries has unleashed emotional, not to say visceral, reactions on the part of several staff members of the CEPAL secretariat,¹

¹ Anibal Pinto is the staff member who has dealt with this topic at greatest length, and he has done so with considerable eloquence. See, for example, his article “False dilemmas and real options in current Latin American debate” (*CEPAL Review*, No. 6, second half of 1978, p. 31), in which he views the “resurrection” of neo-classical thought as a “return to the theories of the past, which some advocates curiously describe as a step forward to the future ...

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but beyond asserting in various articles that economic liberalism has neither a social horizon nor a time horizon,² they have not yet undertaken a serious critique of those approaches: a situation which it is a matter of urgency to remedy.

1. *The articles by Dr. Prebisch on a new theory of change*

It is therefore a source of satisfaction that in his recent studies pointing towards a new theory of change,³ Raúl Prebisch directly tackles this issue.⁴ His critique of the neoclassical theories applied to the development of the capitalist countries of the Latin American region of the periphery falls very much within his interpretation of that development in recent decades, in which he describes the essentially imitative nature of peripheral capitalism (in contrast with the innovative capitalism of the centres) and the unequal way in which the fruits of increasing productivity are appropriated, pointing out how all this contributes to the persistence of a privileged-consumer society and the wastage of the potential for accumulation of the surplus. Prebisch's criticism of the neoclassical approach largely depends on acceptance of his interpretation of the way in which the fruits of rising productivity are converted into extravagant consumption and the consequent insufficient accumulation causes large sectors of the population to be marginalized or only spuriously employed.

The following reflections suggest that the main points of criticism put forward by Prebisch with regard to the neoclassical approach are valid even when divorced from his interpretation of the development of peripheral capitalism in Latin American countries.

reminiscent of a movement observable in the history of European culture, especially at the end of the last century, when the exhaustion of artistic creativity led to a new vogue for the Graeco-Roman heritage as a source of inspiration".

² See the articles by Raúl Prebisch and Aníbal Pinto in *CEPAL Review*, No. 1, first half of 1976, and the above-mentioned article by Aníbal Pinto.

³ See the articles by Raúl Prebisch and Aníbal Pinto in *CEPAL Review*, No. 1 (first half of 1976), No. 6 (second half of 1978) and No. 7 (April 1979).

⁴ See Raúl Prebisch, "The neoclassical theories of economic liberalism", in *CEPAL Review*, No. 7, April 1979, pp. 167-188.

2. *The many conflicting demands of development*

Nowadays almost everyone will admit that a development process calls for high rates of economic growth and that the benefits of that growth must spread through all the strata of the population. In order to achieve high rates of development, high rates of accumulation are necessary and, consequently, some austerity in consumption. To these exigencies relating to saving and investment, austere consumption and an equitable distribution of the benefits of growth, many authors—including Prebisch himself—add that of democratic liberalism, on the grounds that the enjoyment of traditional individual freedoms is an inherent part of the concept of wellbeing pursued through development.

Doubts may be entertained as to the feasibility of achieving more or less simultaneously a steady rise in accumulation (and hence economic growth) together with an improved distribution of income and respect for the individual freedoms which accompany a liberal democratic approach. However, this is essentially what is aimed at in the set of guiding principles formulated by the CEPAL secretariat over the last 30 years. In any event, it should be recognized that there may be worthwhile trade-offs in securing one of these major objectives, in the short or even medium run, in order to achieve the proposed development.

Thus, for example, those who advocate a centrally-planned economy are prepared to forego democratic liberalism, at least during an initial period, in the interests of growth and equity, even placing the emphasis on the latter. On the other hand, the supporters of the neoclassical approach are prepared to forego equity over the short and medium term (even though they may consider this "painful") in order to stimulate accumulation and growth. In other words, equity is sacrificed to growth, on the assumption that in a dynamic context the benefits of growth will spread throughout all the population strata, thus leading progressively to prosperity for all. In addition, a growing volume of literature argues that the neoclassical approach implies foregoing democratic liberalism, again only for a time, since the social

tension arising from the sacrifice of the objective of equity means that an autocratic government is necessary to ensure that these pressures are kept under control.⁵ Indeed, it is this twin sacrifice of both equity and democratic liberalism which has kindled the wrath of those who uphold some version of the reformist theories of development. The experience gathered so far suggests that in those Latin American countries where the neoclassical approach has been applied, with varying degrees of strictness, the economic growth achieved has failed to benefit large strata of the population, and autocratic governments, whose ideological stamp is well known, have been necessary to apply the chosen economic policy.

3. *Viability of economic liberalism in the Latin American context*

Can it not be contended, however, that economic development is complex and painful, and that after a period of sacrifice, as envisaged in the neoclassical approach, these shortcomings will be resolved in the medium or long term? In the last analysis, the argument adduced consists in reiterating that that is how the capitalist centres developed, and that there is no reason whatsoever why the capitalist periphery should not develop in the image and likeness of the centres.

Those who argue along these lines apparently forget not only that the economic liberalism which fostered the development of the United States of America and the major European countries was heavily tempered by an increasing degree of State intervention from the second half of the nineteenth century onwards (*inter alia*, in the form of provision of social security, regulation of the behaviour of the main economic agents and, in the present century, application of an increasingly progressive tax system), but also that the conditions in which the industrial revolution took place were

radically different from those prevailing today in the capitalist countries of contemporary Latin America. The situations differ in at least five respects: (1) the noteworthy consequences of the increasing importance of scientific and technological progress; (2) the demographic picture; (3) the role of domestic demand; (4) the organization of the international economy; and (5) the clear differences between the value systems and the political and cultural heritage of the central countries of yesteryear and the peripheral countries of today.

The revolution in scientific and technological development—the first of the factors listed above—is something fundamentally associated with the centres but imitated by the periphery. Thus the periphery, either from the need to compete in international markets or simply from emulation, tends to incorporate increasingly capital-intensive technology into its production processes, contrary to what would be warranted by its relative endowment of resources. Again, consumerism in the periphery is eminently imitative, and by no means limited to the high-income strata. The development of the mass media—another technological innovation which did not exist in the centres in the nineteenth century—has been most effective in imposing consumption patterns which have very little to do with the production capacity of the peripheral economies or, necessarily, with the quality of life of their inhabitants. Finally, another consequence of technological development has been the decline in mortality and, to a lesser extent, morbidity rates. This partly accounts for the second feature which distinguishes the periphery of today from the centre a century ago, and to which we shall return shortly: namely, population growth.

The countries which are now industrialized never had to face these difficulties. While the development of a broad market for consumer goods and services became the main engine of growth of those societies, their populations did not give free rein to imitative consumerism as do those of the peripheral countries today, thus contributing, among other things, to balance-of-payments and saving problems. Again, the central countries achieved their development by employing

⁵ See Guillermo O'Donnell, "Reflexiones sobre las tendencias de cambio del Estado burocrático-autoritario", in *Revista Mexicana de sociología*, vol. XXXIX, No. 1, January-March 1977, pp. 9%59; and Pedro Vuskovic, "América Latina: la crisis de un patrón de desarrollo y sus consecuencias políticas", in *Comercio Exterior*, vol. 25, No. 12, Mexico City, December 1975.

technology more or less geared to their resource endowment, and while there were well-documented cases of human exploitation, these never reached the extremes of marginalization current in the Latin American countries today.

Turning now to the second element—the population factor—we can distinguish a *fundamental* difference between the centres a hundred years ago and the periphery at present. None of the currently developed countries had to face up to population growth rates even remotely similar to those now prevailing in Latin America. The existence of a large sector of the population which is unemployed or underemployed (the so-called ‘reserve army’) contrasts markedly with the situation of labour scarcity in most of the industrialized countries during their period of most intensive transformation: a circumstance which unquestionably spurred the development of inventions directed towards raising productivity per person employed. The fact that the Latin American population is growing at faster rates than the economies can productively absorb produces various kinds of problems. First, the existence of a large supply of ‘cheap’ labour led most of the Latin American countries to enter world trade with labour-intensive products, thus making use of their comparative advantages. This is a position qualitatively different from that occupied by the central countries, as is pointed out below. Second, the implantation of ‘modern’ activities in the Latin American peripheral countries, far from absorbing an increasing percentage of the population, has led to a technological duality which has contributed greatly to the unfair distribution of income. Third, the fact that a small group could exploit large quantities of cheap labour, combined with the problem of marginality itself, also helped to shape the power structure typical of most countries of the region, by weakening the bargaining capacity of the wage-earners, in contrast with what is happening in the industrialized countries. For example, one of the reasons behind the difference between the Costa Rican society and the other Central American economies must be that unlike what occurred in the other countries, during its colonial period Costa Rica had a small population, both in absolute terms and in rela-

tion to the land factor, and this led to the establishment of production units (small landowners) which were different from those of the other countries. Fourth, the fact that a large percentage of the population is virtually excluded from the market economy leads to a very warped production structure primarily catering to the demand of the higher income groups. And this brings us to a third fundamental difference between the central economies, past and present, and the economies of the periphery.

One of the main props underpinning the central capitalist economies is a broad consumer market. It is widely realized that for the system to function properly there must be a high level of demand and that furthermore this demand must develop dynamically. In turn, this high level of demand implies a wide range of investment opportunities in a great variety of goods and services. In contrast, regrettably, it seems that in the majority of the Latin American countries the working of the system involves, at least implicitly, other requirements which take priority over the desirability of broad-based, dynamic demand; chief among these is the need for a large supply of cheap labour in order to maintain an acceptable level of competitiveness in world trade. Nor is it surprising that the dominant groups in society are more interested in their short-term objective of holding down wages as part of the distribution pattern than in the long-term objective of expanding the domestic market. All this also means that investment opportunities are limited, which certainly fosters consumption of luxury goods and investment in fields of limited social profitability, such as real estate.⁶ For the above reasons, the cyclical fluctuations in the central economies have traditionally been linked with the growth of domestic demand. In contrast, in the Latin American periphery the sometimes abrupt swings between relative prosperity (for a few) and recession are much more closely linked with the performance of the external sector.

The external sector is indeed the fourth factor distinguishing the Latin American

⁶ Mention should also be made of the opening of savings accounts abroad, the reasons for which are more complex than the mere lack of investment opportunities.

countries of today from the central countries in the past. It is not so much a question of the degree of openness of their economies as of their position in world trade. There is an abundant bibliography on this question, including ground-breaking studies by the CEPAL secretariat showing that the Latin American countries depend heavily for their exports on products whose income-elasticity of demand is relatively low, whereas the industrialized countries exported and continue to export goods for which demand is extremely dynamic. Even if this circumstance should change in the future—there might be a rising trend in the value of raw materials, food products and non-renewable resources—it is quite obvious that the international economy today is not what it was in the second half of the nineteenth century, and many of the new features which characterize the contemporary international economy run counter, in the last analysis, to the interests of the peripheral countries. In brief, the Latin American countries today are faced with much more serious problems in the international economy, and are much more dependent on the external sector, than was the case for the United States of America and most of the European countries during the last 150 years. Hence the familiar demands of the Third World, which aim at the so-called New International Economic Order.

Finally, the differences in the scale of values of the central countries of the past century and the Latin American countries today are relevant to this cursory analysis. Democratic liberalism has a long tradition in almost all the countries of the capitalist centre, which made possible among other things the effective organization of different interest groups, including the trade unions. All this led to a more balanced power structure than that existing in most Latin American countries today. Furthermore, in the former countries the role of the State was traditionally to avoid excesses and ensure orderly development as regards civil and political rights, but this has not always been true in Latin America. Instead, the Latin American countries, although adopting all the trappings of democratic liberalism upon attaining economic independence, at the same time inherited economic and social structures which

reinforced inequality, and did not have a tradition of civil and political rights. In sum, in the central capitalist countries for some 200 years or more there was a movement towards broader popular participation in national life, including, of course, economic life; such a movement existed in only a few Latin American countries, however, and instead the heritage of the past, as reflected in the present power structure, tended in the opposite direction.

It is no accident that these fundamental differences between the central countries of the late nineteenth century and the Latin American countries of today lead to the very set of features described by Prebisch in his critique of the neoclassical approach: a very inequitable distribution structure which is nothing less than the reflection of an unfair power structure; a level of accumulation which is too low to absorb the labour force productively, partly owing to the wastage implied by the privileged-consumer society on the one hand and by the existence of redundant labour on the other; and the tendency towards what the author calls the 'external bottleneck' in the pattern of economic relations between the central and peripheral countries.

Of course, the trends of recent years may change in the future, so that conceivably at least the economies of the Latin American periphery might develop along lines comparable to those followed by the central economies in the past. For example, it is possible that, against all the present evidence, agreement might be reached on a new international economic order which would allow the developing countries to gain a better foothold in the world economy, or simply that the products exported by Latin America might rise in value. It is also possible that the very advance of science and technology which in the past affected mortality rates may now affect fertility rates, thus reducing the pace of population growth, although the passage of a generation would be required for the effects of this circumstance to make themselves felt in a reduction in the growth rate of the labour force. Altogether, however, what is clear is that if the trends of the recent past continue there is no reason whatsoever to suppose that the dynamism of the industrial revolution can be

repeated in the Latin American countries, where economic, social and political conditions, at both the domestic and the external level, are fundamentally different. In other words, there is no reason for believing that the Latin American countries can reproduce the experience of the United States or Europe.

Hence the conclusion may be drawn that the neoclassical approach being tried out in some countries of the region does not offer much hope of success. In the first place, it involves a sacrifice of some subjective but widely accepted values such as distributional equity and, apparently, democratic liberalism. Secondly, there are no grounds whatsoever for supposing that the Latin American countries today can repeat the striking successes achieved by the United States of America and the European countries over the last 150 years.

4. *Implications for future studies*

The preceding review, extremely cursory and unquestionably partial, is only one of many possible ways of undertaking the critical analysis of the neoclassical approach applied to the development of the Latin American countries. At all events, it identifies clearly the areas calling for further research: the present and foreseeable performance of the external sector, the formation of the surplus and accumulation, marginality, the distribution structure, power relations, what Prebisch calls 'privileged' and 'imitative' consumerism, and the application of science and technology to development. All these aspects are intermingled in one way or another in the above-mentioned studies by Prebisch, and it is to be hoped that the CEPAL staff will rise to the challenge and continue this fruitful analytical work.

*Comments by Isaac Cohen**

1. These comments refer almost exclusively to the political aspects of the latest articles by Raúl Prebisch. This should not be taken to mean that the economic or social aspects of what he proposes are considered less important; but it is in the political field that the present author considers he can contribute to the critique of the proposal. It should also be pointed out that the following comments on the political aspect by no means underrate the need for development problems to be approached from a standpoint which does justice to their multidisciplinary nature. It must be recognized, therefore, that the studies in question have the merit of approaching the issue from an angle broad enough to make it possible to argue that the development process should signify greater accumulation and at the same time a fairer distribution of the surplus accumulated, all within a framework which preserves a liberal political system.

2. This last exigency is a second merit of the proposal, in view of the constant attention

paid throughout to the importance of power relations in the development process. Thus, the proposal is consubstantial with the intellectual tradition of political economy, a tradition which today has regrettably been seriously undermined by the artificial academic separation of the two disciplines.

3. This importance attached firstly to power relations and secondly to political liberalism gives rise to one of the criticisms which can be made of Dr. Prebisch's proposal. For after power relations have been turned into one of the key explanatory factors of the development process, by the time one reaches the actual proposal put forward in "Towards a theory of change" political aspects no longer possess, in this later section at least, the importance attributed to them in the earlier part. It is never made clear exactly which of the constituent elements of political liberalism is meant: the existence of political parties, or a strict separation of powers with a self-regulating balance attained through a system of checks and counterchecks among the different branches of government which prevents possible abuses of power by any one of them. Nor is

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anything said of how basic freedoms, such as the rights of information and association, can be preserved in a system which sets out to restrict forcibly the consumption of some strata. In other words, how can the social appropriation of the surplus be achieved while preserving political freedoms?

4. The foregoing may perhaps be due to the fact that strictly speaking the political aspects are not part of the view of development on which the proposal is based. If it is admitted that development is conceived as "an endless superimposition of technological layers characterized by increasing productivity and efficiency upon preceding technological layers where productivity and efficiency are lower"; and that "in the course of this process the latter tend to disappear; and the labour force which was employed in them is mainly transferred to technological layers of increasing productivity and efficiency, promoting the homogeneity of the structure",¹ the question arises: where do political exigencies fit into this view of development? Perhaps this conception of development would be more consistent with the proposal if it included the changes in the power structure necessary for this orderly superimposition of the layers of technology to take place.

5. Another criticism that can be made of the proposal stems from the view of politics upon which it is based. It is stated that power relations are not subject to any regulating

principle whatsoever, and are not based on considerations of equity, for these are alien to the operation of the system.² Now, if the present system is criticized for this shortcoming, it may therefore be asked: what agency is going to be responsible for providing the criteria of equity, with what legitimacy and with how much power to impose them? Unfortunately, the proposal as stated does not answer these questions. Or, to put it another way, it appears to posit the existence of a political system in which equity is brought in from outside by some unidentified agency, without any mention of what power that agency possesses for so doing.

6. Perhaps a different conception of politics might help to throw light on these doubts arising from a reading of the proposal. Every political system may be understood as a tacit social contract between governors and governed, whose terms are constantly being put to the test in order to discover the limits of obedience and revolt.³ Accepting this conception of politics, the conclusion must be drawn that the introduction of a different principle of equity from that prevailing in a given political system requires the transformation of the power structure. This in turn calls for a study of the different actors in the political system, and of the alliances which should be made in order to build up sufficient power to enable the new criteria of equity to prevail.

¹"Socio-economic structure and crisis of peripheral capitalism", in *CEPAL Review*, No. 6, second half of 1978, p. 197.

²*Ibid.*, p. 160.

³This idea is taken from Barrington Moore, *Injustice: The Social Bases of Obedience and Revolt*, New York, M.E. Sharpe, 1978, p. 18.

Comments by Fernando Fajnzylber*

Introduction

The articles by Raúl Prebisch to which the following comments refer¹ are in our view particularly stimulating, since the author:

(i) Focuses attention and emphasis on some important endogenous aspects which help to explain the functioning of the Latin American economies;

(ii) Analyses the development of the periphery as an integral part of capitalism taken as a whole, and endeavours to build a bridge between strictly economic matters and political and social questions;

(iii) Openly challenges not only certain 'truths fashionable in the region', but also his own earlier propositions;

(iv) Seeks to draw normative conclusions from his interpretation.

Precisely because these conclusions are founded on the interpretation, it would seem particularly important to analyse the interpretative phase in depth. Such an analysis is attempted below, though very schematically, in these critical comments which basically refer to the main subjects with which Raúl Prebisch's articles deal, namely:

- The imitative nature of peripheral capitalism;
- The surplus, the structure of production and accumulation;
- The system's tendency towards crisis;
- Neoclassical theories and economic policy;
- Towards a theory of change.

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¹"Socio-economic structure and crisis of peripheral capitalism", *Cepal Review*, No. 6, second half of 1978; "The neoclassical theories of economic liberalism", *Cepal Review*, No. 7, April 1979; "Towards a theory of change" (preliminary mimeo version of the article which appears in *Cepal Review*, No. 10; the quotations here are taken from this preliminary version, and therefore may not exactly correspond to the text published in the *Review*).

1. The imitative nature of peripheral capitalism

The great importance the author attaches to this aspect is made clear as follows:

"Peripheral capitalism is essentially imitative, in contrast with the innovative capitalism of the centres. Under the hegemony of these latter, it opens its doors wider and wider to their capital and to their techniques; to their consumption patterns and other cultural manifestations; to their ideas, ideologies and institutions".²

However, in specifically analysing the operation of the model, he focuses attention almost exclusively on the imitation of patterns of consumption, as an important factor in explaining the lack of dynamism: "The exclusive tendency is due above all to the increasing imitation of the centres' patterns of consumption, as well as to the siphoning-off of peripheral income by the centres. All this occurs at the expense of a capital accumulation process which ought to be much more intensive than that which takes place within the limited sphere of the privileged-consumer society".³

Queries

In view of the importance the author attaches to this aspect, it would seem useful to add a few observations concerning both the concept and its implications.

(i) The tendency towards homogenization of consumption patterns is more a characteristic of the contemporary world economy than a specific feature of Latin American development. The spread of the 'American way of life' throughout the developed countries and to the continents on the periphery as well is something that has its origin not only, perhaps, in the advertising phenomenon but also in the emerg-

²"Socio-economic structure and crisis of peripheral capitalism", *op. cit.*, p. 173.

³"Towards a theory of change", *op. cit.*

ence of forms of mass consumption which, for special historical reasons, flourished particularly in the United States.

(ii) An important aspect of Raúl Prebisch's argument stresses the fact that this imitative consumption basically occurs in a small sector at the peak of the income pyramid. Recent research in two large countries in the region, Brazil and Mexico, shows that specific items which can be classed under this head of 'imitative consumption' have achieved a high degree of penetration among the urban population as a whole. This would seem to be due to the following factors: a shift in the structure of consumption in favour of these items, the development of consumer finance machinery, and a decline in the relative prices of the goods in question as compared with those traditionally consumed.⁴ Since a high proportion of these modern goods come from the transnational corporations, the conclusion must be reached that it is necessary to qualify, in accordance with the sectors of production, the frequent assertion—which we formerly endorsed—that these enterprises produce essentially for the high-income sectors.⁵ If one grants that the philosophy followed by these firms is eminently pragmatic, and that one of their basic objectives is to expand the market, it is understandable that they should use their influence to bring the population's pattern of consumption into line with the goods which they know how to produce. Irrespective of the ethical judgement these facts may provoke, it is vital to recognize the existence of this phenomenon, whose importance goes beyond the strictly economic sphere.

(iii) In emphasizing 'imitative consumption', the author leaves out an area where Latin America does appear to present highly specific

⁴ See John Wells, "The diffusion of durables in Brazil and its implications for recent controversies concerning Brazilian development", *Cambridge Journal of Economics*, vol. 1, No. 3, New York, September 1977; "Algunas interrelaciones entre redistribución del ingreso y el nivel de crecimiento del producto y del empleo", in *Proyecto de Planificación y Promoción del Empleo* (MEX 75/007), provisional text, June 1977.

⁵ Obviously, it would be difficult to maintain that this assertion is valid for specific items of clothing, some household appliances, certain foodstuffs and beverages, cosmetics and some pharmaceutical products, plastic utensils, and so on.

features; we refer to the structure of production by means of which the above-mentioned pattern of consumption is satisfied. It is an indisputable fact that, after the Second World War, the 'Western' pattern of consumption penetrated countries such as Korea and Japan, but without leading to the transplantation of large numbers of firms from the West to produce such goods. The existence of powerful local bourgeoisies, with specific plans in view for the country, together with a variety of other familiar historical and cultural factors, made it possible to reconcile the imitative pattern of consumption with a structure of production whose centre of gravity was to be found in local groups which were capable of competing internationally—even in those markets where the goods had originated. The growing efficiency achieved by these structures of production, strictly protected for substantial periods, made it possible to reduce costs and sharply expand the domestic market for these 'copied' goods.

Hence can be inferred the relative weakness of those analyses which endeavour to explain the lack of dynamism by concentrating exclusively on the high level of protection. This suggests that it is important to introduce into the analysis the factors accounting for the mould in which the domestic structure of production is cast and, in particular, the role played by the domestic entrepreneurial sector, directly and through the State.

2. *The surplus, the structure of production and accumulation*

The distribution of the surplus plays a central role in Prebisch's analyses:

"This dynamic is based on a structural phenomenon to which we have attributed decisive importance: the surplus.

"A fairly large proportion of the fruits of technical progress remains in the hands of the owners of the means of production in the form of a surplus, and this occurs at the expense of the labour force disadvantaged by market laws because of the social heterogeneity of peripheral capitalism."⁶

⁶ "Towards a theory of change", *op. cit.*

A central element in the analysis is what he terms the struggle for distribution (of the surplus), its impact on accumulation and inflation, and the effect of inflation on the political process and, in particular, on what he refers to as the tendency towards a "crisis of the system".

Queries

(i) The structure of production and the surplus.

In this paragraph attention is focused on the magnitude of the surplus and its links with the structure of production, this latter being a subject to which the author makes practically no reference. His central concern is the distribution of the surplus, over time, between the sectors which own the means of production and the labour force, and this distribution struggle is expressed in terms of the relationship between growth of productivity and growth of earnings. If productivity grows faster than earnings, the surplus will increasingly be channelled towards the owners of the means of production. Here the author does not inquire into the factors which determine the level of productivity and its evolution over time, and for this reason does not need to introduce into his analysis the aspects referring to the structure of production. This omission with regard to the structure of production becomes important in the normative phase, however, precisely when the author suggests machinery whereby the distribution of the surplus can be substantially modified.

Among the factors which determine the overall productivity level are the sectoral structure and the type of enterprise existing in each of the sectors. Rises in productivity are caused by alterations in the sectoral structure and by changes in the balance between modern and traditional enterprises within each of the sectors. Even if productivity were to remain constant in each of the sectors, overall productivity would increase to the extent that the higher-productivity sectors grow faster than the others. Furthermore, productivity per enterprise may remain constant, but for modern enterprises to grow more rapidly than the rest is enough to raise productivity in each sector, and consequently overall productivity. If the above pic-

ture is rounded out by introducing technical progress and the economic policy context in which productive activity is pursued (protection, State intervention, market structure), this will supply a rough guide to the forces which account for the increase in productivity. In this way it can be confirmed empirically that there is a direct relationship between the growth rate of the product and the productivity increment. In other words, the rate of introduction of technical progress by enterprises and intra- and inter-sectoral changes become more intensive with the growth of the economy as a whole.

Consequently, the characteristics of the structure of production and the changes it undergoes are of fundamental importance in explaining the evolution of productivity over time, but they also exert a direct influence on the growth of earnings. The relative incidence of modern enterprises, the relative weight of sectors which are more or less concentrated in urban areas, and the growth rate of economic activity, in addition to historical and cultural factors and the size and growth rate of the population, directly influence the capacity of the labour force to exert pressure in the distribution struggle to which the author refers.

It is clear from the above considerations that Prebisch's neglect of the structure of production and almost exclusive concentration on the distribution of the surplus not only prevent him from dealing with the wide variety of situations in Latin American countries, but also limit the scope for enlarging upon the proposal made in the normative phase of his article.

(ii) Surplus and accumulation.

Throughout the various articles runs the idea, conveyed with greater or lesser explicitness, that there seems to be a direct relationship between the volume of the surplus and the rate of accumulation.

"In order to understand it one must remember the two opposite movements from which the total amount of the surplus results. On the one hand, it is increased by new productivity increments which are only partially transferred to the labour force. On the other hand, it is reduced by the process of sharing just mentioned.

"The dynamics of the system require that the total surplus resulting from these opposed

movements should grow constantly in order to satisfy the consumption requirements of the privileged strata and the corresponding requirements for accumulation.⁷

Nevertheless, for the purposes of specific analysis of the Latin American countries—and, most importantly, where there is an intention to make proposals for an alternative form of development—it would seem useful to add a few qualifications of this proposition, which, it may be noted, is a central element in Prebisch's thinking.

If productivity grows faster than wages, an increasing proportion of the surplus will be channelled towards the owners of the means of production; once the size of the surplus is determined, the amount available for investment in the private sector will depend on the tax burden, consumption by the recipients of the surplus, and the proportion of the surplus which is remitted abroad as payment for external factors. Assuming that the net sum of resources available in the country is increasing, and that there has been no appreciable decline in the product-capital ratio, a situation will arise where the decision to invest will depend on the real investment opportunities capable of generating a satisfactory rate of return. In other words, the hypothesis that higher growth of productivity than of wages implies an increase in the rate of private profit is a necessary but not a sufficient condition for accumulation. In some Latin American countries, during periods of social tension, and when prospects for the entrepreneurial sector appear unfavourable, it has been observed that high rates of private profit are reached which are not translated into domestic investment. This also seems to happen in some countries of the region where drastic changes have been made in protectionist policy, reducing opportunities for investment in those sectors of production that are exposed to international competition, and limiting accumulation to financial assets, frequently speculative in nature, and to non-tradeable sectors (construction, recreational services and tourism). In cases where the share of wages has fallen, too, the increase in the surplus may have

failed to be reflected in productive accumulation.

3. *The system's tendency towards crisis*

The author maintains, in the first place, that there is a relationship between the nature of the system and the outbreak of the crisis, and locates the crisis at an advanced stage of the development process:

"I have maintained that the process of development heads for a crisis because of the very nature of the systems; and this tendency arises in advanced stages of the process. It is true that the initial phases are characterized by exclusive phenomena, but those conflictive phenomena which play such an important role in the outbreak of the crisis have not yet emerged with sufficient intensity".⁸

Consequently, the distribution struggle will be intensified during the process of development, and this, in specific circumstances, will intensify pressure from the labour sector.

"As changes take place in the social structure, however, the trade-union and political power of that disadvantaged labour force allows it gradually to remedy the weakness of its ability to obtain its share, and likewise the inadequacy of the system's absorption capacity. Thus it improves its private consumption and its consumption of State services, but it does so, as has been shown, at the expense of a growth rate of the surplus superior to that of the product".⁹

As a result of this tendency, a time will come when earnings grow at the same rate as productivity.

"Accordingly, as these various forms of participation evolve, a moment is reached at which the growth rate of the surplus becomes equal to that of the product, and the greater the extent to which political or trade union power spreads to the lower strata, the sooner will that moment occur. This is the limit beyond which the participation of the disadvantaged labour force cannot go without causing trouble, under the sway of market laws."¹⁰

⁸ *Ibid.*

⁹ "Socio-economic structure and crisis of peripheral capitalism", *op. cit.*, p. 180.

¹⁰ *Ibid.*, p. 181.

⁷ *Ibid.*

In the face of this trend, the entrepreneurial sector would have the option of resorting to price increases as a compensatory mechanism.

"There are, however, institutional mechanisms whereby the owners of capital can recoup themselves for the decrease in the surplus: the same whereby they were able to appropriate the structural surplus [a concept whose meaning is not specified — F. F.] and retain it indefinitely in their hands. These are monetary mechanisms, and however strong the opposition put up by the responsible authority, the economic and political power of the owners of capital prevails in the end".¹¹

This in turn will lead to an intensification of labour pressures.

"This reaction on the part of the privileged-consumer society is not slow to bring with it a counter-reaction on the part of the labour force, when it has achieved sufficient power, with new pressures that become more intense if and when the lower strata join in this struggle. The inflationary spiral is then triggered off, evidencing the crisis of the system; this is a type of inflation which falls outside the scope of orthodox monetary prescriptions."¹²

Thus we reach the phase prior to the outbreak of the crisis, which will be tackled by resorting to force.

"Inflation upsets the system and causes its social disintegration, and this sooner or later culminates in recourse to another of the State's institutional instruments: the use of force, determined either by a decision on the part of those who hold it in their hands, or by the influence of political power at the summit of the system. The object of the use of force is to overrule or suppress the trade-union and political power of the masses, thus seriously undermining their sharing capacity."¹³

Queries

This proposition, attractive in its clarity and simplicity, prompts the following questions, among others:

(i) To what extent has higher growth of wages than of productivity been empirically confirmed in the countries of Latin America over relatively lengthy periods? Empirical evidence is lacking, but it may nonetheless be stated that, in order for this to happen, the surplus of unemployed labour must be small, the trade union organization must be powerful and the range of sectoral productivity levels must be broader than the sectoral wages spectrum. If this last condition is to be satisfied, the trade-union movement must not only be powerful in given areas but must also be highly integrated at the national level, and this in the last analysis requires the existence of strong political organizations representing the labour force.

It may be asserted *a priori* that, except in very special cases (perhaps in some countries in the Southern Cone during specific periods), these are not the situations that predominate in Latin American countries; and this will for the time being significantly restrict the validity of the hypothesis formulated.

(ii) Even in any cases where evidence may have been found of a greater rise in wages than in productivity over a relatively protracted period, in keeping with what Prebisch terms 'advanced stages' of Latin American development, the question arises of the importance of this tendency in explaining inflation, and, by extension, the crisis.

As from the second half of the 1960s there is empirical evidence that in the developed countries wages have been growing faster than productivity. This tendency, reinforced by the increased tax burden and the deterioration in the terms of trade of the developed countries (aggravated from 1974 onwards by the rise in oil prices) would seem to have caused a drop in the rate of return, which, together with the perpetuation of the previous factors, would seem to lie at the root of poor economic growth in the developed countries and to constitute one of the major reasons for the persistence of inflation.¹⁴

¹¹ *Ibid.*, p. 181.

¹² "Towards a theory of change", *op. cit.*

¹³ "Socio-economic structure and crisis of peripheral capitalism", *op. cit.*, p. 181.

¹⁴ See P. McCracken *et al.*, "Towards Full Employment and Price Stability", OECD, Paris, June 1977; Edward F. Denison, "The Puzzling Drop in Productivity", *The Brookings Bulletin*, vol. XV, No. 2; Leonard Silk, "Productivity and Inflation", *The New York Times*, 12 January 1979; John Wyles, "Puzzling over Productivity", *Financial*

On previous occasions, a slowing of the growth rate led to greater slack in the labour market, and this also spread to the political sphere, thus generating appropriate conditions for a subsequent boom in private investment; this would seem to be the mechanism through which the system reacts to phases where wages grow faster than productivity. It is clear that, at least up to the present, this mechanism, which in fact is one of the factors accounting for the cyclical process in the developed countries, has not produced the type of crisis to which Prebisch refers in his work, i.e., the sort which would seem to have occurred in various Latin American countries. In the case of some countries of the region, the period of social tension prior to the crisis is characterized not only by an intensification of pressure from the labour force within the limited area of the distribution struggle, but also by more profound questioning of the organization of the social system, which does not discount changes in the ownership of the means of production. Perhaps for the very reason that this comprehensive challenge does not form part of the distribution struggle in the developed countries, the machinery for adjusting the system by cyclical means does not lead to the critical situations which are characteristic of Latin America's special brand of capitalism.

As regards inflation, it seems relatively clear that the distribution struggle is an important factor, but by no means the only one. In

Times, 15 February 1979; William B. Franklin, "The Inflationary Threat on the Productivity Front", *Business Outlook*, 2 February 1979, p. 29; "Public Expenditure Trends", OECD, Paris, June 1978; R. Keohane, "Economic Activity, Inflation and the Role of the State", *World Politics*, Princeton University Press, 1978; Martin Feldstein and Lawrence Summers, "Is the Rate of Profit Falling?", *Brookings Papers on Economic Activity*, No. 1, 1977; Robert Eisner, "Capital Formation, Where, Why and How Much? Capital Shortage: Myth and Reality", in *Capital Formation*, vol. 67, No. 1; William D. Nordhaus, "The Falling Share of Profits", BPEA, No. 1, 1974; Charles L. Schultze, "Falling profits, rising profit margins, and the full-employment profit rate", *Brookings Papers on Economic Activity*, No. 2, 1975. Martin S. Feldstein and Michel Rothschild, "Towards an economic theory of replacement investment", *Econometrica*, vol. 42, No. 3, Evanston, Illinois, May 1974; Arthur M. Okun and George L. Perry, "Notes and Numbers on the Profits Squeeze", *Brookings Papers on Economic Activity*, No. 3, 1970.

addition to the various structural and monetary factors which help to account for this phenomenon, a persistence of inflationary pressures has been observed in recent years in some countries where force was resorted to, and where trade-union pressure was appreciably weakened; and this would seem to confirm that the distribution struggle is part of a broad range of factors which contribute to inflation.¹⁵

(iii) In so far as the author does not specify the country cases where his analysis would apply, the impression may be left that the aim is to propose an overall explanation for the crises experienced by the various Latin American countries. However, with respect both to the causes of these crises and to the models which culminated in them, there would seem to be a variety of situations which are not strictly in keeping with the propositions set out by the author in this regard.

There are cases where industrial development is intensified after the crisis, and others where it declines. In some instances the share of wages falls, while in others this tendency does not occur; in some, again, a drastic liberalization is provoked, while in others the protectionist policy remains in force; and there are also significant differences as regards the role played by the State. We are sure that this wide variety of situations has not escaped the author, though it may possibly be that the specific area which inspires Raúl Prebisch's thinking corresponds to some of the cases where the crisis has occurred with the use of force.

4. Concerning the neoclassical theories and their application to economic policy

In his criticism of what some have termed a 'popular' version of the neoclassical theories, Prebisch concentrates attention on the inequitable distribution of the fruits of technical progress.

"First and foremost, the fruits of increased productivity are not reflected in a fall in prices

¹⁵ Albert O. Hirschman, "The Social and Political Matrix of Inflation: Elaborations on the Latin American Experience", The Institute for Advanced Study, Princeton, New Jersey, prepared for The Brookings Project on the Politics and Sociology of Global Inflation, October 1978.

in so far as they have not been transferred to the earnings of the labour force, but remain in the hands of the owners of the means of production in the shape of a surplus."¹⁶

In his argument he therefore emphasizes the importance of power in the distribution process.

"In conclusion, the fruits of technical progress are not distributed according to marginal productivity, as is assumed in neoclassical theory, but mainly through the power of the various social groups."¹⁷

In analysing the application of the neoclassical theory to international trade, he introduces institutional aspects such as the presence of the transnationals and the behaviour of the centres *vis-à-vis* exports from the periphery, emphasizing the functionality of the present international division of labour in relation to the dominant interests both in the centre and in the periphery:

"Thus, the classical theory of international trade has scientific validity given certain assumptions, but it also served to formulate that outdated prescription for the international division of labour which accommodated dominating interests both in the centre and the periphery"¹⁸.

Queries

In the Latin American countries applying an economic policy transparently and strictly based on neoclassical theory, one may observe, in addition to the distribution problems to which Prebisch refers, serious shortcomings as regards the level of activity and the very objective of attaining an efficient and stable position in the international market. In other words, there is firstly a problem of generating the product, and secondly a problem of distributing it. In order to seek a better understanding of this situation, it may perhaps be necessary to raise the question of the validity of some of the hypotheses on which the said theory rests, the way in which its conclusions are interpreted for the purposes of devising economic policy, and

also the nature of the present international circumstances in which the developments under discussion are taking place. This task is tackled, schematically and with no claim whatever to exhaustiveness, in the following paragraphs.

(i) There appears to be general agreement in government circles in Latin America that the problem of unemployment is one of the main challenges the region will face in the coming decades. Curiously, one of the hypotheses which serve as a basis for the neoclassical formulation of the theory of international trade is precisely the existence of full employment; and its aim is to identify conditions as regards the organization of production and trade which will lead to a satisfactory solution for all countries: in other words, to identify in which activities each country should specialize so as to make full use of the "abundant factors" with which nature has endowed it. In order to reach such a position sectoral changes are needed, but it is assumed that these occur in a situation characterized by full employment. In this regard, one is struck by the surprise expressed in certain circles at the fact that the scrupulous application of the criteria derived from this theory does not lead to an appreciable increase in employment. They forget that, for the purposes of the theory, this condition is satisfied from the outset.

(ii) It is understandable that the nucleus of more advanced countries which have a common matrix of technology and help to ensure that it is constantly being developed should accept, at least at the intellectual level, the hypothesis of international trade theory which holds that competing countries have similar production functions and that, accordingly, the sole problem is to select those items in each country that make most intensive use of the factors which, in each country, are relatively more abundant. This means that none of those involved would enjoy 'absolute advantages' over the others. As a result of Leontief's famous empirical proof¹⁹ regarding the Heckscher-

¹⁶ "The neoclassical theories of economic liberalism", *op. cit.*, p. 170.

¹⁷ *Ibid.*, p. 173.

¹⁸ *Ibid.*, p. 177.

¹⁹ W. W. Leontief, "Domestic production and foreign: the American capital position re-examined", *Proceedings of the American Philosophical Society*, Philadelphia, Pa., No. 97, September 1953; W. W. Leontief, "Factor propor-

Ohlin model and the later study by Arrow, Chenery, Minhas and Solow,²⁰ as well as subsequent research on the Hecksher-Ohlin-Samuelson model when the production functions vary for the various countries, it has become clear that there is no justification for excluding the possibility that specific countries have 'absolute advantages', which would explain how, while possessing an 'abundance of capital', they are in a position to export labour-intensive products.²¹

If it is postulated that, in some Latin American countries, the disadvantages are 'absolute', the problem arises of defining the action, mechanisms and periods of time necessary for moving from this initial situation to another which combines advantages in some areas with disadvantages in others.

In David Ricardo's classic version of the theory of international trade this problem was automatically resolved through the operation of the 'quantity theory of money': under this theory the country with the 'absolute disadvantage', England, sold both wine and textiles at higher prices to Portugal, which would compensate its deficit by paying in gold; this operation would tend to raise prices in Portugal and reduce them in England, so that a time would come when the product manufactured relatively more efficiently in England would become competitive with the less efficient Portuguese product, and at that point the stage of 'relative comparative advantages' would begin.

It is difficult to imagine —though it is equally hard to exclude the possibility— that anyone could still maintain this to be the mechanism by which the countries of Latin America could move from a situation of 'absolute disadvantage' to one of 'relative disadvantage' in their commercial transactions with the United

States, the European Common Market and Japan.

So far, the real mechanism has been external borrowing, and its trends and implications suggest that the initial lag will not be eliminated by this means. There is sufficient evidence to permit the assertion that, in the absence of internal transformations, borrowing basically results in a consolidation of the prevailing distortions.²²

(iii) 'Efficiency' is a crucial concept in the 'Latin American neoclassical debate'. Its formulation ignores some empirical and everyday elements such as the decline in the flexibility of prices and wages; the general erosion of competition, and particularly competition through prices; systematic government intervention; the obsolescence of the international monetary system and, above all, of the gold standard; and also the serious imperfections in information flows.

However, perhaps the most serious omission is related to the economic policy objectives for which this concept of efficiency would be functional; in our view these objectives should be incorporated within the concept of 'efficiency'.

In order to be described as efficient, agriculture and industry would have to make a contribution through exports which, if the remaining components of the balance of payments remained constant, would make it possible to finance the volume of imports needed to reach satisfactory levels of growth in production and employment, with an 'appropriate' level for the exchange rate. These qualifications with regard to levels of dynamism and exchange rates are of fundamental importance in emphasizing that what is involved is not just any kind of 'efficiency', but an efficiency which is consistent with the overall objectives of economic policy. It is easy to give an impulse to an industrial sector that exports enough to finance the volume of imports required for a stagnant economy, or to one that substantially increases its exports of a broad range of items,

tions and the structure of American trade: further theoretical and empirical analysis", *Review of Economics and Statistics*, No. XXXVIII, Amsterdam, November 1956; "Reply", *Review of Economics and Statistics* (Supplement) No. XL, February 1958.

²⁰ K. Arrow; H. B. Chenery; B. Minhas and R. W. Solow, "Capital Labor Substitution and Economic Efficiency", *Review of Economics and Statistics*, vol. 43, August 1961.

²¹ Harry Johnson, "International Trade: Theory", in David L. Sills (ed.), *International Encyclopedia of the Social Sciences*, vol. 8, New York, Macmillan, 1968, pp. 83-95.

²² Anwar Shaikh, "On the Laws of International Exchange", Seminar on Economic Theory and Policies for Growth, Mexico City, Centro de Investigación y Docencia Económicas A. C. (CIDE), 5-9 September 1977.

on the basis of a drastic devaluation which will produce serious secondary effects in the form of inflation and concentration of income.²³

The challenge is to raise efficiency, understood here as being linked to long-term objectives. Moreover, the importance of the connexion between efficiency and dynamism arises from the fact that the existence of a relationship between growth in output, productivity and technological innovations has been empirically proved.

(iv) Japan and Korea are perhaps the clearest historical examples of countries which rejected the 'popular' version of the theory of comparative advantages, 'processing' its normative criteria into dynamic terms in keeping with their own situations.

Perhaps the clearest and most direct account of Japan's industrialization after the Second World War was given by the Vice-Minister for International Trade and Industry, Y. Ojimi:

"The Ministry of International Trade and Industry decided to establish in Japan industries which require intensive employment of capital and technology, industries that in consideration of comparative costs of production should be the most inappropriate for Japan, industries such as steel, oil refining, petrochemicals, automobiles, aircraft, industrial machinery of all sorts, and electronics, including electronic computers. From a short-run, static viewpoint, encouragement of such industries would seem to conflict with economic rationalism. But, from a long-range viewpoint, these are precisely the industries where income-elasticity of demand is high, technological progress is rapid, and labour productivity rises fast. It was clear that without these industries it would be difficult to employ a population of 100 million and raise their standard of living to that of Europe and America with light industries alone; whether right or wrong, Japan had to have these heavy and chemical industries. According to Napoleon and Clausewitz, the secret of a successful strategy is the concentration of fighting power on the main battle

²³ See Ajit Singh, "North Sea Oil and the Reconstruction of U.K. Industry", a paper presented at the National Economic Conference on De-industrialization, London, Chatham House, 27 June 1978.

grounds; fortunately, owing to good luck and wisdom spawned by necessity, Japan has been able to concentrate its scant capital in strategic industries."²⁴

The extent to which this national undertaking, where participation in industry by foreign firms was minimal,²⁵ has been successful in penetrating the international market is proved by the increasingly strong reaction on the part of the United States and Europe aimed at limiting Japan's export drive. After 30 years of protection Japan subscribes to the declarations of the developed countries regarding the desirability of liberalizing world trade, but does not allow that to prevent it from curbing exports to its own domestic market, by means of non-tariff protection.²⁶

In the case of Korea, in addition to the part played by the extensive battery of economic policy instruments, the specific conditions of authoritarianism and the geopolitical situation, a decisive role was enacted by the systematic and organic liaison between the executive branch and the country's leading groups, as well as by the bold, clear-cut strategic options adopted by Korea at the sectoral level.²⁷

Korea is now embarking resolutely on production of capital goods, relying on direct support from the government and from the World Bank.

²⁴ *The Industrial Policy of Japan*, Paris, Organization for Economic Co-operation and Development, 1972, p. 15.

²⁵ Between 1964 and 1970 the share of transnational corporations in Japanese industrial output rose from 2.5% to 3.0%. See T. Ozawa, *Japan's Technological Challenge to the West, 1950-1974*, MIT Press, 1974.

²⁶ See Charles C. Hanson, "New EEC pressure on Japan to cut trade imbalance", *Financial Times*, January 1979; "The Rise of Japanese Competition", *Dollar and Sense*, January 1979; "Yusuke Kashiwagi, the supreme competitor, Bank of Tokyo's President", *Euromoney*, January 1979; "Japan Steps up its 'Invasion' of US", *U. S. News & World Report*, December 1978; Bruce Vandervort, "Japan won't meet US trade demands", *These Times*, November-December 1978; "Scaling the 'buy Japanese' Wall", *Business Week*, December 1978; Mitsuo Ikeda, "Japanese Electronic Cash Registers Score Worldwide Sales Victory", *Business Japan*, November 1978; Klaus R. Schroder, "Liberalization comes crawling in", *Euromoney*, January 1979.

²⁷ Despite what is often maintained, the involvement of foreign capital in Korean industry is relatively marginal. It has been estimated that no more than 5% of industrial assets have links with foreign capital. See Larry E. Westphal, "The Republic of Korea's Experience with Export-Led Industrial Development", World Bank Reprint Series,

It would be a mistake to think that these two elements, *selectivity and articulation*, are exclusive to Asian societies because of the latter's special features. The best demonstration of the fact that these two criteria are being actively applied in all the developed countries, with different degrees of intensity and in different forms, is the emphatic support their governments, in close co-ordination with their major firms, are currently giving to the 'micro-electronics' sector, the crucial component of the new 'industrial revolution' now in its initial stage.²⁸

The confluence of the advances achieved in telecommunications, data processing and electronics, supported by the development of microprocessors, will make it possible to introduce fundamental changes in the various phases of 'information technology', which in turn will lead to significant progress in communications, services and the capital goods and durable consumer goods industries. These changes will have a direct impact on international trade, by substantially modifying the relative positions of the different countries.²⁹

What a contrast there is between these facts and the guiding principles in force in some of the countries of the region, which lay

down that, out of respect for theory, even activities related to technological research must be subject to market laws, and that consequently applied research institutions should be self-financing. Thus in the developed countries the heresy of government intervention and the voluntarism associated with sectoral selectivity continue to prevail, whereas some Latin American countries have already entered the ethereal and abstract phase where theoretical purity alone reigns supreme.

There are so many and such varied cultural and historical differences between Japan, Korea and Latin America that the lessons derived from this experience could hardly be mechanically transplanted to our region. Consequently, these cases are mentioned only in order to bring out the fact that when analysing the process of industrialization in Latin America, it is necessary to include protectionism among the elements which define the *modus operandi* of Latin America's industrial system. Protection is undoubtedly an important aspect; but some thought must be given to the type of production it is sought to protect, the nature of the firms responsible for indiscriminate import substitution, the role played by the State, the sectors of society for which this industrialization is functional, and consistency between the nature of assimilated technical progress and the region's requirements and potentialities in terms of human and natural resources.

(v) To the above considerations must be added the international situation, as the concrete framework for the political and economic design of this experiment in the strict application of neoclassical theory.

Declarations of principle are frequently adopted in the developed countries in favour of free trade, and concerning the need to reduce protectionist barriers both in those countries themselves and in the more advanced of the developing countries;³⁰ nevertheless, they do not succeed in neutralizing pressure from the

No. 54, p. 361. As far as exports are concerned, it has been estimated that the share of foreign firms stood at 11% in 1979 and 14% in 1971. See Benjamin I. Cohen, "Comparative behaviour of foreign and domestic export firms in a developing economy", *Review of Economics and Statistics*, vol. 60, 1973, pp. 190-197.

²⁸ See Michael Mc Lean, "The Impact of the Microelectronics Industry on the Structure of the Canadian Economy", October 1979; C. G. Kean and Cullen R. Savage, "Micro-computers", Stanford Research Institute, Report 570, California, USA, 1976; W. J. King, "G. E. Microprocessors", April 1977, pp. 32-36; Dr. N. Swords-Isherwood and P. Senker in *Manufacturing Engineering*, October 1978, pp. 64-72.

²⁹ See "Competition, Technical Change and Manpower in Electronic Capital Equipment: A Study of the UK Minicomputer Industry", SPRU Occasional Paper, Series No. 8, Science Policy Research Unit, University of Sussex, September 1978; J. M. Mc Lean and H. J. Rusch, "The Impact of the Microelectronics on the UK", SPRU Occasional Paper, Series No. 7, June 1978; B. J. Pond, "A Management Guide to Computer-integrated Manufacturing", *Iron Age*, 10 April 1978; B. J. Pond, "The Road to CAD/CAM", *Iron Age*, 28 March 1977, pp. 37-44, 25 April 1977, pp. 39-44, 30 May 1977, pp. 32-37, 27 June 1977, pp. 31-34; B. J. Pond, "Machine Tools: A Time of Change", *Iron Age*, 5 December 1977.

³⁰ "In the field of international trade, the challenge is to widen the area in which the GATT's principles are applied and in which fair and open competition is maintained. To that end, one U. S. objective will be to increase the number of countries that are subject to the rules of the GATT, including notably some of the *rapidly industrializing*

trade unions, from small and medium-sized industry and from the regions affected by the recession and inflation which have prevailed in recent years.³¹

In the particular case of the United States, the magnitude of the external deficit has prompted the formulation of an export promotion policy,³² accompanied by protectionist pressures, whereby it is hoped to reinforce the effects associated with the devaluation of the dollar.³³

It is therefore becoming obvious that the application of policies for the promotion of industrial exports is no mean task for the Latin American countries.³⁴

In general terms, then, it can be seen that the countries of the region are simultaneously facing problems such as the promotion of exports from the developed countries; pressures for a reduction in protection; and tendencies towards the granting of more and more facilities for direct investment. Although it may appear paradoxical, it is precisely in this context that particular force is acquired by the criti-

cisms of Latin American industrialization which call for the elimination of protection and stress the need to reduce to a minimum the 'interference' associated with government action.

5. Concerning the proposal in "Towards a theory of change"

In Prebisch's proposal two levels of abstraction may be distinguished. The first relates to the nature and fundamental objectives of the proposal, while the second refers to its specific content in the economic area.

As far as the nature of the proposal is concerned, its essential objectives are the restoration of political liberalism, equity and growth, with emphasis on the concerns and aspirations of that specific regional conglomerate which is known as Latin America. The task is "to combine vigorous development, distributional equity and the advance and consolidation of the democratic process".³⁵

The core of the proposal appears to lie in what the author calls the 'social use of the surplus': "The new option for the transformation of the system is based on the *social use of the surplus*, taking it from in whose hands most of the means of production are concentrated. Its purpose is to attack the major evils of the system by collective discipline *in distribution and accumulation*".³⁶

This proposition, which is strictly consistent with the interpretation already advanced by the author in the articles previously commented upon, focuses attention on the process of distribution of the surplus and its use for the purposes of growth, postponing for consideration in subsequent studies the issue of the level and structure of the surplus generated.

The proposal, which strictly speaking takes the form of a call for reflection, self-criticism and seeking a consensus of the majority, might, because of the objectives pursued, arouse the attention and interest of broad sectors of society. Perhaps the only groups that would stand aloof from this consensus would

countries that have become major factors in world markets." W. Michael Blumenthal "Steering in crowded waters", *Foreign Affairs*, vol. 56, No. 4, July 1978, p. 739.

³¹ For an important academic challenge to the liberalization approach, which comes from a developed country with a weak relative position in international trade, see Francis Cripps and Wynne Godley, "Control of imports as a means to full employment and the expansion of world trade: the UK's case", *Cambridge Journal of Economics*, No. 2, 1978, pp. 327-334; Francis Cripps, "Causes of growth and recession in world trade", *Economic Policy Review*, No. 4, March 1978; and Francis Cripps, "The money supply, wages and inflation", *Cambridge Journal of Economics*, No. 1, 1977, pp. 101-102. Trade union opposition is expressed as follows: "The problem of a greater rise in imports than in exports during the 1970s has modified the trade union attitude to trade". This new position is stated in the basically protectionist programme adopted by the AFL-CIO Executive Council. See *American Federationist*, July 1978.

³² See "US President's Statement on Export Policy", Department of State, 26 September 1978.

³³ See, for example, "US trade policy and the textile industry", *National Journal*, 10 June 1978, which describes the protectionist platform of the textile sector.

³⁴ "The scope for the growth of exports from developing to industrialized countries is likely to be much more limited for the next decade than it was in the last two. The main reasons for this are the faltering pace of economic recovery in the industrialized countries and the rise of protectionist pressures." *World Development Report 1978*, Washington, D. C., World Bank, 1978, p. 66.

³⁵ "Towards a theory of change", *op. cit.*

³⁶ *Ibid.*

be the small but powerful sectors which would be affected by this "collective discipline in distribution and accumulation". The author maintains that "part of the surplus of the major enterprises will be redistributed to the disadvantaged labour force. And this will make it possible for the private and social consumption of the latter sector to increase at the expense of privileged consumption".³⁷

As regards the specific meaning of the discipline of accumulation, it is "designed to raise the rate of accumulation substantially and equitably. In order to achieve this aim all enterprises would have to increase the amount of the surplus devoted to accumulation at the expense of consumption on the part of the owners of the means of production".³⁸

Queries

In respect of its specific economic content, the proposal is somewhat opaque. It is not clear what approach would be adopted to a number of issues to which the author himself attributes great importance in the interpretation which forms the background of the proposal:

(i) The 'imitative' character which would appear to be associated with specific patterns of consumption, and accordingly with the structure of production and the presence of transnational corporations, is a subject which is not explicitly introduced into the proposal. If this

means that the imitative character in question would remain unchanged, it would be interesting to see the consequent repercussions on the model proposed; if, on the other hand, the imitative character is to be modified, no indication is given of how this might be achieved;

(ii) Nor is it specified what mechanism would be used to attain the objective of converting the 'socialized' surplus into accumulation. One can imagine the direct effect of this redistribution on the equity objective, but the feasibility of simultaneously fulfilling the aim of stepping up accumulation is less clear;

(iii) In the interpretation of the present model, the author emphasizes the decisive importance of subordination to the centres in the operation of 'peripheral capitalism'. If this hypothesis is accepted, it would appear natural to question what would be the effects of this 'socialization of the surplus' on the position of the countries of the region in the world economy.

We understand that Raúl Prebisch's purpose—as he states himself in the concluding pages of his latest articles—is to help to stimulate thought and discussion rather than to supply a finished product whose specific technical aspects meet strict standards. We consider that, both because of his contribution to interpretation, and because of the nature of the normative proposal, the author has fully achieved his object. The brief comments outlined here are precisely a formulation of the moot points on which reflection is prompted by the articles concerned.

³⁷ *Ibid.*

³⁸ *Ibid.*

Some CEPAL publications

Movimientos internacionales de capitales, by Ricardo H. Arrazu. "Cuadernos de la CEPAL" series, No. 32, Santiago, Chile, 1979, 90 pages.

Increasing attention has been given to the study of international capital movements in recent years in view of their intensification and the generalized use made of the floating of currencies as the basis of national exchange systems since 1971; one of the most important topics in this field is the interrelation between capital movements and the development efforts of the less developed countries.

This topic has aroused particular interest in the Latin American area, since many of the countries in it depend heavily on international capital movements to finance and maintain high and sustained rates of economic development.

Unfortunately, the majority of the studies centre on institutional aspects, give little or no attention to studying the causes of non-compensatory international capital movements, or refer exclusively to capital movements among developed countries, so that they are of little use for analysing the experiences of developing countries.

For this reason the main objective of this study is to assess the advances made in the analysis of capital movements, adapting them to the economic and institutional realities of the region with the aim of identifying the main factors influencing capital movements from and to Latin America.

Section I describes briefly the theoretical models which served as a basis for the construction of the 'simplified combined model' on the basis of which the empirical estimates are made. Section II, which is of a markedly empirical nature, specifies the main economic variables which explain the behaviour of capital movements, mentions the problems of measurement which arise in the quantification of these variables and makes an appraisal of the empirical results obtained for the countries studied. Lastly, section III presents the conclusions stemming from the study in the hope that they can contribute to the design of policies for the external sector.

Informe sobre las inversiones directas extranjeras en América Latina, by Alfredo Eric Calcagno. "Cuadernos de la CEPAL" series, No. 33, Santiago, Chile, 1980, 106 pages.

This report gives an updated picture of direct foreign investments in Latin America, and endeavours to determine their magnitude and some of their characteristics and tendencies, as well as identifying their role as an instrument for investment financing in the Latin American countries or for the expansion of the productive activities of the developed investor countries.

Chapter one analyses the viewpoints of the developing and developed countries and observes that in the former the main problem is that of the effects of foreign investment on the margin for autonomous decision-making and the development of the production system, while the aims pur-

sued by the investor countries are above all to secure continuity in supply and make profits, so that their direct investments are mainly aimed at making the most of natural resources, manpower and protected markets. A summary follows of the conditions of access and action of direct foreign investments, bearing in mind the relative importance and orientation of the economic policies of the country receiving the investment and the home country of the investor enterprise, and a review is made of the specific cases of investment in developed and developing countries, and of foreign operations in countries with centrally planned economies.

Chapter two describes some features of the situation at the national level—particularly the interrelations between the nation-States and the transnational corporations, which are the main organs for the implementation of foreign investment policy—and quotes examples of the influence of State economic policies on foreign investments, and of the frequently successful attempts on the part of the transnational corporations to ensure that government decisions benefit them.

Chapter three sums up the main quantitative data on the cumulative amount of direct foreign investment existing in Latin America, by sectors and countries of origin and destination; while chapter four describes some characteristics of the enterprises which make the investments, in comparison with the major domestic enterprises, the features analysed being size, productivity, wages, profits, influence on the balance of payments, financing, and technology.

Chapter five raises the problem of the influence which production specialization in the developed countries might have on the magnitude and orientation of direct foreign investment in the Latin American countries, while chapter six outlines some recent forms assumed by such investment, which start off from the basis of a minimum outflow of capital from the country of origin of the capital, with the foreign investment contribution consisting basically of technology, the management—not the contribution—of the financing, and forms of organization and distribution machinery. These modes are fundamentally based on joint operations. In the cases of raw materials and fuels, some developed countries are using long-term purchase contracts, the sale of technology and technical advisory services as a means of ensuring continuity in supply without any need to actually own the enterprise.

Lastly, in the final summing-up mention is made of some interpretations and appraisals, while the statistical annex gives the main figures used.

Las fluctuaciones de la industria manufacturera argentina, 1950-1978, by Daniel Heymann, "Cuadernos de la CEPAL" series, No. 34, Santiago, Chile, 1980, 234 pages.

This study is part of the programme which the CEPAL Office in Buenos Aires is conducting on information and the short-run analysis of the Argentinian economy, the objective being the development of statistical data which will make it possible to organize a system of indicators of economic activity to serve as a basis for making descriptive studies of sectoral performance in the short term.

Chapter I reviews the studies which have been written on the economic cycle in Argentina, stressing the impor-

tance attached by many authors to the relation between the conjunctural situations and economic policy, which makes it possible to identify some criteria which have served to define the methods of analysis used, these methods being discussed in chapter II. Chapter III, for its part, reviews the medium-term evolution of manufacturing since 1950 and thus leads up to the discussion on cycles introduced in chapter IV.

This chapter gives the main results of the research on cycles of industrial production, grouped in five sections. The first determines the location of the maxima and minima of the reference cycle (a concept which brings out the spread of the phases over different activities) and reviews the length of the fluctuations. The next two sections summarize the magnitude and form of these fluctuations, the fourth section includes an analysis of the correspondence between cyclical extremes and economic policy transitions, and the last section gives a disaggregated analysis of the cycle so as to identify advances and lags in the critical points of production in the different branches of industry compared with the reference cycle, while also appraising the range of each specific series and its contribution to the magnitude of the aggregate fluctuations.

Chapter V uses some qualitative indicators of demand and stocks (which exist only for a more recent period) in order to supplement the description of the production cycle. Finally chapter VI sums up the main results achieved and puts forward some conclusions which may serve to orient future studies in this field of research.

The study ends with eight annexes and an appendix; the former contain statistical tables, graphs and a description of the information and methods used, while the appendix briefly describes the latest period (1978-1979).

El balance de pagos de América Latina 1950-1977. "Cuadernos Estadísticos de la CEPAL" series, No. 5, Santiago, Chile, 1979, 164 pages.

In recent years CEPAL has undertaken the task of systematizing the statistical data it possesses through the use and application of computing. As regards balance-of-payments statistics, the series available in CEPAL cover the data for the Latin American countries as from 1950. The information comes from the International Monetary Fund (IMF), which has systematized the compilation of balance-of-payments statistics throughout the world on the basis of the data supplied by the countries in line with the instructions and recommendations contained in successive editions of the Fund's *Balance of Payments Manual*.

Using the IMF data, CEPAL maintains the balance-of-payments series for the Latin American countries, so as to have access to information for the region as a whole and for some subregional groupings, and in order to provide the necessary statistical information for the issues of the *Eco-*

nomic Survey of Latin America and other secretariat research.

This Cuaderno gives a selection of tables in which the statistical series appear arranged in three sections. The first gives the summary of the balance-of-payments current account, in dollars of each year; the second includes estimates of the balance-of-payments current account in constant dollar values at 1970 prices, and the third covers the balance of payments by type of transaction, in dollars of each year.

The series on the balance of payments in current values are maintained for the entire period beginning in 1950, but with a slightly different presentation from that used by the IMF. Moreover, the data for the last current year are usually estimated by CEPAL on the basis of partial data obtained directly from the countries. CEPAL has established a methodology for obtaining balance-of-payments current account values at constant prices, including the purchasing power of exports and the terms-of-trade effect.

CLADINDEX, Resúmenes de documentos CEPAL/ILPES, Vol. 2, Santiago, Chile, 1979, 269 pages.

In this publication the Latin American Centre for Economic and Social Documentation (CLADES) continues its work of analysis and technical processing of the documentation generated by CEPAL and ILPES, using the ISIS (Integrated Set of Information Systems) system. Its objective is to disseminate the thinking of the Economic Commission for Latin America through a publication which represents a contribution to the transfer and exchange of socio-economic information in the region and the constitution of a data base of easy access and easy consultation.

This volume corresponds to the period 1977-1978 and includes meeting documents, working drafts, reports, studies, annual reports, books, texts and articles.

Planning Bulletin of the Latin American Institute for Economic and Social Planning (ILPES), No. 7 (March 1979).

Coinciding with its fifteen years of existence, the governments gave ILPES responsibility for supporting the functioning of the System of Co-ordination and Co-operation among Planning Bodies of Latin America, set up in 1977. This thrice yearly Bulletin is the organ of this System and pursues the objective of serving as a vehicle of communication between all the institutions and persons concerned with planning in Latin America.

In compliance with these objectives, the Bulletin offers on this occasion a selection of articles on experiences in economic and social planning in Cuba, Peru, Mexico and Venezuela, prepared by the planning bodies of these countries.

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