

# INTERNATIONAL TRADE AND PAYMENTS IN AN ERA OF COEXISTENCE

## COMMERCIAL POLICY IN THE UNDERDEVELOPED COUNTRIES

By RAÚL PREBISCH\*

*United Nations Economic Commission for Latin America*

### I. *Industrialization*

Historically, the spread of technical progress has been uneven, and this has contributed to the division of the world economy into industrial centers and peripheral countries engaged in primary production, with consequent differences in income growth. We are now at a transitional stage, in which this division is being gradually weakened, but it may take rather a long time to disappear. As the spread of technical progress into the periphery—limited originally to exports of primary commodities and related activities—is advancing more and more into other sectors, it brings with it the need for industrialization.

Indeed, industrialization is an inescapable part of the process of change accompanying a gradual improvement in per capita income. In response to differences in the income elasticities of demand and in rates of increase in productivity, the active population is tending to shift—chiefly through the distribution of its increment—from occupations with a relatively low income elasticity of demand—principally primary production—to industry and other activities where this is relatively high.

This process has characterized the development of the industrial centers and is now advancing into the periphery. Industrialization of the centers is not a matter of dispute: it seems quite obvious that industrial countries should continue to industrialize. On the other hand, industrialization of the periphery has always been a controversial subject, not only in the centers, but also in the peripheral countries themselves. Although the opposition is receding, there are still some who consider industrialization to be a harmful diversion of productive resources from primary activities. Those who promote industrialization

\* I am indebted for valuable criticism and constructive suggestions to: Professor Hollis B. Chenery, Stanford University, and to my Deputy at the Economic Commission for Latin America, Mr. Louis N. Swenson, as well as to Dr. Hans Singer and Mr. Sidney Dell, of the United Nations Department of Economic and Social Affairs. I am further pleased to place on record here the coincidence of ideas of this paper with the main lines of argument in Dr. Singer's paper on "Industrialization—The Other Side of the Coin," presented at the recent ECAFE Working Party on "The Role of Industrialization in Economic Development," which was received after this one had been written.

of the periphery are still credited with odd or ill-founded motives: the belief that industry makes nations wealthy while agriculture is a source of poverty; animosity towards the countryside, reasons of prestige, or the desire to achieve self-sufficiency or to imitate the centers.

Let the peripheral countries increase productivity in their primary activities through much-needed technical progress and thus expand their exports. Their rate of development will then be accelerated on a sound basis. So runs the argument.

Technical progress in export activities of these peripheral countries has undoubtedly been a great stimulus to their growth. But if this process is extended to other primary activities for internal consumption, where productivity is usually very low, and industry is not developed to absorb redundant manpower, then the inevitable outcome will be more disguised unemployment or downright unemployment.

Thus the plea for technical advance in primary production as an alternative to industrialization in order to improve standards of living defeats its own purpose, as some of the fruits of such technical advance will usually be transferred from the peripheral countries to the outer world, unless it is buttressed by a vigorous process of industrialization and increasing productivity in industry. The greater the inelasticity of demand for peripheral exports, the larger the proportion of the fruits that is so transferred.

Industry and technical advance in primary production are thus complementary aspects of the same process. And in this process industry plays a dynamic role, not only in inducing technical progress in primary and other activities, but in the new attitudes fostered by industrial development.

As in the centers, industrial development at the periphery responds to the same disparities in income elasticity as regards internal demand; and in addition to that, to the effects of similar disparities in foreign trade. It is a well-established fact that the income elasticity of demand for imports of Latin American primary commodities by the centers is generally lower than the income elasticity of demand for Latin American imports of industrial products from these centers. This difference is frequently accentuated by measures to protect primary commodities in the centers, whereas, as will be shown later, it is reduced by protection in peripheral countries, provided this is established between certain limits.

Let us take one instance: the case of Argentina. This country has followed the very mistaken policy of trying to stimulate industrialization to the detriment of agriculture, instead of promoting a balanced growth of both. In the recent ECLA study prepared at the request of

the Argentine government, we examined a series of measures that might considerably increase exports through mechanization and other technical advances in agriculture. But even so, exports would only grow at the rate of 1.1 for every 1 per cent of growth of income, while the demand for imports was estimated with a coefficient of income-elasticity of 1.4 per cent, given the projected rate of income growth up to 1967 as compared with 1955. Similarly high elasticities for imports have been found in ECLA's studies for Brazil, Mexico, Colombia, and Peru.

In other words, in addition to the need for industrialization arising from the internal growth of Argentine income, there is the further need, because of the disparities between exports and imports just described, for substituting domestic production for imports of industrial goods.

The other aspect of this process is to be found in manpower figures. Indeed, the active population employed in agriculture in Argentina in 1955 represented 26 per cent of the total. Although this is rather a low figure for Latin America and exports are supposed to grow at a very high rate, we have estimated that, in the period considered, due to technical progress only about 10 per cent of the increment of active population will be absorbed in agriculture, whereas industry will have to absorb some 47 per cent of it.

Import substitution (defined here as an increase in the proportion of goods that is supplied from domestic sources and not necessarily as a reduction in the ratio of imports to total income) is the only way to correct the effects on peripheral growth of disparities in foreign trade elasticity. Let us take a numerical example to clarify this aspect of our problem. For the sake of simplicity, we shall assume that there is only one center and a periphery, having equal rates of population growth. Assuming that the center's rate of income growth is 3 per cent yearly and the income elasticity of demand for imports of primary commodities is 0.80 and that there is no import substitution, then the rate of growth of these imports will be 2.40 per cent ( $3 \text{ per cent} \times 0.80 \text{ per cent}$ ) per year.

Suppose now that at the periphery income elasticity of demand for industrial goods from the center is 1.30. If, in a balanced development process, the rate of growth of these imports is to be no higher than that of exports, then peripheral income cannot increase faster than 1.84 per cent per year. This is the rate which, combined with that coefficient of elasticity, gives the limit of import growth—that is to say a rate of 2.40 per cent, the same as that for exports.

Should peripheral income grow at a rate, say, similar to the 3 per cent of the center, its demands for imports of industrial products would grow at the rate of 3.90 per cent ( $3 \text{ per cent} \times 1.3 \text{ per cent}$ ) while ex-

ports of primary commodities would increase at the rate of only 2.40 per cent. To bridge the gap between these two rates, either the rate of increase of demand for imports would have to fall by 1.50 per cent, by means of import substitution, or industrial exports would have to be added to the primary ones, or a combination of the two.

We have assumed the same rates of population growth at the center and periphery. If the rate is higher at the latter, as is the case in Latin America, industrialization has to be intensified in order to have the same per capita rate of income growth as the center. This is particularly necessary if the present differences in per capita income are to be gradually narrowed down.

We have seen that import substitution tends to correct the disparity in income elasticities of demand for imports and for exports. This does not mean that industrialization is not necessary in the exceptional cases—at least in Latin America—where there is no such disparity. It has been shown that industrialization also responds to internal disparities of demand. If exports of a particular country grow faster than its demand for imports, industry will still have to grow, but its contribution towards meeting total demand for industrial goods will decline while that of imports will increase. By contrast, when demand for imports tends to grow at a faster rate than exports, import substitution is necessary to correct this disparity, and then imports constitute a declining proportion of total demand for industrial goods.

On the other hand, a country whose exports grow at a very fast rate and constitute a relatively high component of its aggregate product is in a better position than others to accelerate its rate of economic growth; but this acceleration may induce a rate of increase in the demand for imports higher than the increase in exports, requiring import substitution to correct the disparity.

The acceleration of the rate of growth will be the more necessary if exports absorb only a small fraction of the increment of population. This is the peculiar case of Venezuela, where fast growing oil exports constitute 32 per cent of its total product, whereas they employ only 2.6 per cent of the total active population.

## II. *Protection*

In the changing pattern of employment associated with the process of development, a declining proportion of the continuously increasing active population is needed for the growth of existing activities for the internal market, due to improvements in productivity. Therefore a part of the growing manpower is not required in these existing activities. Moreover, there is manpower that for the same reason is not needed to produce the present level of exports. All this redundant manpower has

to be employed in the expansion of these exports and in new branches of industries for substitution purposes, as well as in other new activities. These new forms of employment are geared to internal and external demand elasticities and to different rates of increase in productivity.

In other words, in a dynamic economy redundant manpower is continually emerging as a result of technical progress, and it tends to be absorbed to meet the increasing demand generated by that very same technical progress.

In addition, there is a second form of manpower that has to be so absorbed. There are indeed vast numbers of marginal workers of low productivity rendering poorly paid personal services, as well as people engaged in other forms of precarious employment or disguised unemployment of a precapitalist character who should be moved to new jobs.

In the process of growth, at every level of per capita income, a certain proportion of this manpower is made available for transfer to other forms of employment, through shifts in demand as well as through technical changes in production.

For the sake of brevity, we will use the term "surplus manpower" to describe both these sources of labor and we will confine ourselves to that part of the surplus to be transferred to exports or new branches of industry for import substitution.

Redundant manpower as such does not produce any income and the real measure of the fruits of technical progress is the increment that accrues to the community when such manpower is transferred to new forms of employment. In addition to this increment, there is the net increase in income obtained by transferring available manpower from these precapitalist forms of employment of very low productivity to exports or industrial activities of much higher productivity.

Let us first clarify one important point. Industrial costs higher than import prices do not necessarily mean that an industry is not economic for a country as is sometimes assumed.<sup>1</sup> Of course the smaller the difference the better.

The problem has to be considered from another angle. It is not really a question of comparing industrial costs with import prices but of comparing the increment of income obtained in the expansion of industry with that which could have been obtained in export activities had the same productive resources been employed there.

I am afraid that it is not possible to arrive at the optimum solution of this problem if market forces are left unrestricted. The classical mechanism of the free play of market forces, either in its original form of wage adjustments or in its contemporary version of price adjustments

<sup>1</sup> This was the assumption made by the Currie Mission on the iron and steel industry in Colombia, in the report presented to the International Bank some years ago.

through exchange rate movements, does not bring about that optimum solution. On the contrary, the periphery transfers to the outer world a greater part of the fruits of increased productivity than if the market forces had been contained at a certain point, either through customs protection or some other form of interference in the process.

Let us see briefly how exchange depreciation would work. Depreciation itself is considered as an outcome of market forces. If disparities in elasticities cause the demand for imports to grow faster than exports, let the exchange rate depreciate and find its own equilibrium level, when the surplus manpower will be fully absorbed.

As regards the absorption of manpower in exports, internal price increases due to exchange depreciation will bring higher profits and stimulate expanded production and exports. It is conceivable that this increase in exports could happen without any, or only a very small, decline in external prices. This, however, would mean a very high elasticity for export demand, which is quite unrealistic in the light of Latin-American experience. Income elasticity is generally low and so is price elasticity. Consequently, only a part—and not a very large one—of the surplus manpower can be employed in exports at given prices, and beyond that limit prices decline.

On the other hand, higher import prices will now make attractive those new branches of industries which were not so before because their costs were higher than import prices.

In this process, competitive equilibrium will be reached at a point where returns for export producers will equalize those for these new industries. However, this is not the optimum point for the periphery. Indeed, the marginal increment of income, arising out of successive increments of employment in export activities, has been falling faster than prices. And it can be demonstrated (see appendix) that, at the equilibrium point, except in very extreme cases, the marginal increment of income in those activities is lower than in industrial ones. It may even be negative if elasticity is very low.

Therefore, the optimum solution is attained before competitive equilibrium at a point where marginal increments are the same in both activities. In other words, the maximum gain for the periphery as a whole falls short of the equilibrium position where marginal costs and marginal revenues are equated.

The best solution for the periphery would be to stop the increase of exports beyond that optimum point of maximum gain. Some advocates of exchange rate adjustment to correct the disparity in foreign trade elasticities recommend that an export tax be imposed, high enough to deprive exporters of the profit incentive for continuing to expand production.

By and large, an export tax of this kind means a clear interference with market forces and acts in the same way as a protective duty on imports. If this import duty is levied at the optimum point, where marginal increments of income are equal, it will divert manpower to industrial activities and hence curtail employment in exports, just as the export tax does. (Throughout this process I have assumed constant costs, in order to avoid unnecessary complication.)

Again, if an export tax has an effect similar to protection, I have strong doubts about the advisability of exchange rate adjustments as an instrument to correct foreign trade disparities in demand elasticities. The main appeal of depreciation as compared with protection is that it leaves private initiative rather than government agencies to decide which branches of industry will be profitable substitutes for imports. But this could also be achieved through a uniform protective duty.

Protection (or subsidies) seems a more direct and simple solution, as it limits the adjustment to those new branches of industries that should be developed within a given period of time. To obtain the same result, depreciation forces the adjustment of the whole price system. In my view, a policy of depreciation or devaluation should be used only to correct an externally overvalued currency and not as an instrument for effecting structural changes in the economy.<sup>3</sup> A selective protection policy is a preferable instrument, notwithstanding the obstacles that have to be overcome in practice; and if it is applied gradually, higher import prices, affecting a relatively small proportion of imports each time, could be absorbed by general increments of productivity without affecting the price level of the entire economy, provided that protection has not been exaggerated to shelter inefficiency.

In any event, this is not relevant to our main line of argument. What is highly relevant is that the cost of spontaneous industrialization—by the unrestricted play of market forces through exchange depreciation—is a transfer abroad of part of the increment in real income derived from the employment of the surplus manpower, and that this transfer could be reduced or avoided by protection, subsidies, an export tax, or other forms of interference.

We have explained before that this increment of income represented the fruits of increased productivity. Therefore, the periphery transfers part of these fruits through the unrestricted play of market forces, in order to employ the surplus manpower whenever exports must increase beyond the limit at which external prices remain constant.

The classical mechanism in its original form of wage adjustment works, in the last instance, in the same way as its new version of ex-

<sup>3</sup> The difference is really between present and future equilibrium prices.

change rate depreciation. In both cases the level of wages in foreign currency has to drop in order to bring industrial costs down to a level competitive with imports, both expressed in foreign currency.

Setting aside other aspects of the classical mechanism, it is essentially the pressure of the surplus manpower which in this mechanism forces the fall in wages (in domestic as well as foreign currency, since it is assumed that there is monetary stability). This fall makes new industries attractive and stimulates exports, with the consequent price decline. All this is based on quite unrealistic assumptions concerning labor mobility and willingness to accept nominal wage reductions, whereas the mechanism of exchange depreciation does not require these assumptions. As a result of depreciation, the level of wages falls in foreign currency and, at the same time, this is accompanied by the fall of external prices. This is compatible with imperfect labor mobility and different levels of wages, and so is more realistic than the old classical mechanism.

Wage reduction does not mean a corresponding fall in real wages. In the classical mechanism the nominal fall is supposed to be largely offset by the fall in the level of prices, except in new branches of industry where costs are higher than import prices.

In the depreciation version, the level of real wages is restored through wage adjustments compensating for the effect of higher import prices on the cost of living. Of course, since imports constitute merely a fraction of the cost of living, wages need to increase less than import prices do. If in the process of adjustment wages rise more than the cost of living, the protective effects of depreciation are lost and a new depreciation might then be necessary.

In other words, internally there is no change except that real costs in new branches of industry will be higher than in existing ones. But externally the fall of wages in export activities, as a counterpart to the fall in prices (both in foreign currency), reflects the process of transfer of real income through the deterioration in the terms of trade.

In order to clarify this transfer process, we have to introduce concepts of the physical productivity ratio (henceforth called the "productivity ratio") and wage ratio. The productivity ratio expresses the relationship of physical productivity per man between the periphery and the center. There is a wide range of such ratios. For instance, exports of primary commodities at the periphery may have a range of, say, from 3 times the productivity at the center to only 0.50; and these exports of less relative productivity will be made if the level of wages is proportionately lower. So if the level is only half that at the centers, those export activities having only half the productivity of the center will be



developed; while those having a higher productivity ratio will tend to transfer part of the difference to the center through the free play of market forces. (To avoid complications, I have not included land rental, since it cannot be transferred.)

There is a similar range of industrial productivity ratios. Industries having a ratio of 0.50 or higher at the periphery could develop without protection, but those having less, say 0.40, would need it. We have seen that if these marginal industries are necessary for the full employment of the surplus manpower, the free play of the market forces will bring a wage deterioration, in terms of foreign currency, so far as this is necessary to offset the lower productivity ratio as compared with export activities (another way of expressing costs higher than import prices). Thus, to make marginal industries competitive, wages in foreign currency must decline so as to reduce the wage ratio from 0.50 to 0.40 and this process is accompanied by the decline of export prices. This is the case of transfer of real income that we have seen before.

Let us take now the other case. Let us assume that technical progress in exports advances in such a way that the productivity ratio of marginal export activities is increased from 0.50 to 0.70, without any increase in the industrial productivity ratio, which is also 0.50 at the margin. In this case, also, it will be the differential productivity of exports in relation to industry which tends to be transferred.

We may simplify the two cases in a broad generalization: Whenever the productivity ratio in exports is higher than in the marginal industries needed to employ the full surplus manpower, the real income corresponding to the difference in productivity will tend to be transferred abroad in the unrestricted play of market forces. This occurs either when the surplus manpower has to be employed in industrial branches where the productivity ratio is lower than in exports of primary commodities, or when the latter improves faster than does the ratio of industrial productivity. Therefore, it would be a very mistaken policy to advocate technical progress in primary activities without a parallel policy of industrialization. The higher the technical progress in those activities, the greater is the surplus of manpower. If this surplus is absorbed only in relatively small proportions by export activities—as is usually the case—industrial development is even more necessary because, as we have seen before, without it the fruits of technical progress in primary activities will be lost wholly or in part. We have also seen that to a certain extent this transfer is avoided by protection. But protection by itself does not increase productivity. On the contrary, if excessive, it tends to weaken the incentive to produce. Therefore, in order to maintain at the periphery the major fruits of technical progress in

primary activities and especially in exports, similar progress has to be made in industrial activities in order to improve their productivity and increase the level of wages in foreign currency. This will allow a parallel increase in wages for export activities; thus preventing a corresponding transfer of real income.

The need for technical progress in industrial activities has been duly emphasized in the infant industries argument. As productivity improves, protection may decrease until it is completely eliminated. This argument seems to overlook the need for helping exports to retain the fruits of technical progress. Indeed, if industrial productivity increases and wages do not rise proportionately, due to reduction or elimination of protection, exports will transfer their differential productivity.

Let us revert to our previous example to clarify this matter. If the productivity ratio in marginal exports is 0.50 and the wage ratio is the same and industries have to be developed with a productivity ratio of 0.40, then the difference must be offset by protection. Now, if technical progress at the periphery increases the productivity ratio of the marginal industries to 0.50, protection will no longer be needed. But then the wage ratio will continue to be 0.50. If, on the contrary, protection is maintained, the wage ratio will have increased in accordance with the productivity ratio and in this way, if exports also increase their productivity ratio, the periphery will retain the fruits of this increase up to the new level of wages.

Furthermore, when higher productivity is translated into higher wages rather than into lower protection, there is the additional advantage of forcing similar increases in productivity in other activities lagging behind. But all this requires a very cautious and selective policy of protection and does not conflict with the possibility and advisability of reducing and eventually eliminating protection in those industries having a faster rate of technical progress.

In all the reasoning of this section we have, for the sake of simplicity, considered a center and a periphery as a whole. But there are great differences between the centers. Secondary centers, as distinct from the main ones, may have some problems similar to those of the peripheral countries, when in order to fully employ their surplus manpower they have to engage in activities where costs are higher than import prices. This raises problems which, although interesting, are outside the scope of this paper.

On the other hand, there are also great differences between peripheral countries. A peripheral country might advantageously employ the whole increment of its manpower in increasing exports without industrialization, provided that too many others do not do the same. But we are

considering the general need of the peripheral countries for industrialization.

### III. *Terms of Trade*

In the last instance, the pressure upon export prices and the corresponding tendency towards deterioration in the terms of trade in the peripheral process of growth subject to the unrestricted play of market forces is the result of disparities in income elasticity of demand and the uneven form in which technical progress has spread into the world economy, bringing very great disparities in technological densities. That is to say, the amount of technological knowledge as well as the real aptitude for using it in production.

Let us imagine a world without such disparities. In it we will not find any tendency to deterioration. Let us assume that there is a country A which is prevaillingly industrial and a country B which is prevaillingly primary. The wage rate is the same and trade is in equilibrium at a point where marginal productivity is the same in both countries. Then the productivity ratio at that margin is 1.0 and the wage ratio is the same. The productivity ratio is such that in A there is a full range of activities, principally industrial, where productivity is, say, up to three times as high as that of B. And in B there is another range of activities, principally primary, where productivity is also up to three times that of A. Therefore, there are no technological disparities. Neither are there any disparities of elasticities and the demand for goods is equally divided between primary commodities and industrial products. Finally, population and per capita income grow at the same rates in both countries.

Given these assumptions, there is no reason for a deterioration in the terms of trade working against primary production. Indeed, demand for primary products grows at the same pace as industrial demand, and consequently, the given increment of manpower at B does not need to be diverted from primary production, where the productivity ratio is favorable to B, to industry, where the productivity ratio is unfavorable for the same country.

Furthermore, as technological density is the same and productivity improves at the same rate in A and B, there is no differential productivity from this source to be transferred from the one country to the other.

Let us assume now that income elasticity of demand for industrial products is higher than for primary commodities, without any other change in the remaining assumptions.

If country B is unable or unwilling to send to A manpower which

would increase the latter's rate of industrialization, it has no other way out than to decrease the proportion of manpower in primary activities in favor of industry, through a different distribution of the increment than was formerly the case.

Here comes the important aspect. In B, manpower is transferred from primary occupations with a favorable productivity ratio to industrial occupations with an unfavorable ratio. Consequently the pressure of the surplus manpower will force employment down on the productivity ratio curve from 1.00 to say 0.80, with the wage ratio falling correspondingly at the new competitive equilibrium point. In the process of this adjustment to 0.80 of the wage ratio, export prices will fall, transferring income to country A. The contrary happens in country A. In response to a higher rate of industrial demand, manpower will flow from primary production to industry, where the productivity ratio is more favorable, thus improving the wage ratio.

Note that, according to our original assumption, the rate of increase of productivity is the same in both countries. Yet wages will increase less than productivity in the primary producing country due to the downward pressure of the surplus manpower, while they will increase more than productivity in the industrial country due to the pressure upwards.

This tendency to deterioration will be accentuated if, in addition to disparities in elasticity, we introduce disparities in technological densities. Suppose that in country B the export productivity ratio continues to be the same as in primary activities in our original assumption in relation to A but that the industrial productivity ratio is much lower than in the previous case. Thus in country B one of the important characteristics of a peripheral country appears.

It is obvious that if the industrial productivity ratio is more unfavorable than before, the level of wages has to drop more steeply in country B, hence increasing the transfer of real income to country A. Therefore, the combination of disparities in income elasticities of demand and in technological densities put the periphery in a weaker position vis-à-vis the center, as regards the terms of trade.

The center is in a better position to retain the fruits of its general increase in productivity because the increment in manpower does not need, as in the periphery, to press on occupations with a lower productivity ratio to the detriment of the wage level. In other words, general improvements in productivity tend to be fully reflected in the increment of the wage rate at the center, while at the periphery a part of the fruits of these improvements is transferred through the fall of export prices and the corresponding deterioration in the terms of trade.

In addition to this tendency, if productivity for export increases faster than marginal productivity of industry, then the fall of export prices will also tend to be more severe. The same may happen at the center, but the greater degree of technological homogeneity suggests that this phenomenon is likely to be less intense than at the periphery.

Furthermore, protection at the center gives additional force to the peripheral tendency towards a deterioration in the terms of trade. If there is free play of market forces at the center, some marginal primary activities there might disappear because of competition from increased peripheral exports at lower prices. But if these marginal activities are protected at the center, the possibility of increasing exports in the periphery will be less, and consequently a greater part of the surplus manpower will have to seek employment in industrial activities with a lower marginal productivity ratio, which would entail a further decrease of the wage level in foreign currency, with a further deterioration in the terms of trade.

This tendency of the terms of trade at the periphery to deteriorate in a process of spontaneous growth may be offset by compensatory forces in the free play of the market. One of these forces is of a Ricardian character. Even if wages deteriorate in foreign currency, the terms of trade may improve for the periphery if growing demand for some products prompts a resort to agricultural or mining land with lower returns. The other is connected with the center. Technical progress in some export activities at the center may advance faster than general productivity, resulting in a transfer of differential productivity of the same type as at the periphery although, probably, much less intense due to greater technological homogeneity at the center.

Interference with market forces may also counteract the tendency to deterioration. As we have explained, this is the effect of protective duties or export taxes. Combinations to restrict or eliminate competition in export activities may have similar effects, provided that not all of the profits are transferred abroad. Moreover, labor union action to increase wages in export activities may maintain the terms of trade, and, last but not least, international action to defend primary commodities may have this same effect.

On the other hand, a policy to reduce or eliminate primary protection at the center may, through the expansion of peripheral exports, absorb a greater part of the increment of manpower at the periphery, so alleviating the tendency towards deterioration of the terms of trade.

All this is very tentative but it offers a working hypothesis for inquiring into the past. A higher rate of increase of productivity in export than in domestic activities, coupled with a rather weak industrial-

ization process, may in the past have been powerful forces contributing to the deterioration in the terms of trade for some products. Further deterioration may occur in the future if efforts are concentrated on technical improvements in primary production without a vigorous development of industries and their technical advance, accompanied by a cautious policy of interference with the free play of international market forces to support the prices of important primary commodities.

#### *IV. Reciprocity*

Protection has different meanings in the peripheral countries and in the industrial centers. In the former it is, up to a certain point, the instrument for correcting the effects of the disparity in income elasticity of demand for exports of primary commodities and for imports of industrial goods and does not hamper the rate of growth of world trade. In the industrial centers, by contrast, protection of primary production accentuates this disparity and tends to depress peripheral development and to decrease the rate of growth of world trade.

The reduction or elimination of such protection at the centers has an implicit element of reciprocity, since the resultant increase in exports of primary commodities from the periphery will be followed by a corresponding increase in its imports of industrial goods, in response to their high income elasticity of demand, and there is no need for any reduction or elimination of duties to obtain this result.

The traditional form of reciprocity, under which peripheral countries are asked to grant duty concessions similar to those introduced by the centers, does not take into account this implicit element of reciprocity.

Moreover, these reciprocal duty concessions may have an unfavorable influence on the periphery's rate of growth. The development process requires a continual change in the composition of imports. These changes usually start with the decline in the proportion of imports of light consumer goods in favor of imports of basic material, capital goods, and durables. At more advanced stages of industrialization, when import substitution of these light consumer goods has been nearly completed, new changes relating to the other categories of goods are necessary, so that by reducing or eliminating imports of some of them it is possible to increase imports responding to the needs of the development process. Now, if these duty concessions interfere with these changes, then the increased peripheral capacity to import resulting from duty concessions at the centers instead of helping to attain a higher rate of growth might be accompanied by a real decline in the rate of industrial development. This might be a very harmful use of the increase in the periphery's capacity to import deriving from such

duty concessions at the centers. What is needed is a policy to encourage these changes in composition in order to accelerate the rate of economic growth, so that imports are adapted to the need for greater technical progress in primary production and for more intense industrial development.

I do not mean to suggest that existing duties and restrictions at the periphery should be untouchable. Far from it. Instead of the ideal of a rational and selective policy, there has frequently been shortsighted expediency and sheer improvisation. And in some cases indiscriminate or massive protection has gone far beyond the optimum point, to the serious detriment of exports and world trade. Therefore, although the periphery cannot influence the centers in a positive way, it may have a definite negative influence. The centers can actively stimulate the rate of growth of peripheral countries through trade and investment, but the latter cannot influence in a similar way the rate of growth of the centers and bring about any increase in their demand for primary products. However, if the periphery develops industry through protection beyond the optimum point, to the detriment of imports from the centers, this may have an unfavorable consequence on the center's rate of growth.

Under the conditions just described, protection at the periphery, instead of merely correcting disparities of income elasticity in relation to the centers, creates new disparities in the opposite sense and the centers are forced to adopt defensive protective measures to maintain their own rates of growth.

Of course, duty concessions granted by the centers afford a good opportunity of inducing peripheral countries to correct these anomalies. But much more is needed: a definite readjustment of commercial policy based on the clear recognition that, instead of trying to crystallize the existing pattern of peripheral imports, an effort should be made to help promote those changes in composition which are indispensable for fostering the rate of economic development.

All the foregoing requires a long-term outlook that may jeopardize short-term private trading interests. However, this would not be the first time that fundamental policy considerations have prevailed over those short-term interests, however legitimate they may be.

The centrally planned economies have, in this respect, a better means of adjusting their imports and exports to the needs of developing economies. And it is to be hoped that these countries, since they have long-term plans, will disclose projections of their probable demand for primary commodities, so as to enable producing countries to base their

policy decisions on sounder foundations than they have been able to do to date.

### *V. Multilateral Trade*

Multilateral trade is the result not so much of adherence to a principle as of the trade policy of the most important countries. In this respect, the most significant behavior is that of the principal dynamic center of the world; that is to say, the center which because of its magnitude and technological progress has a greater influence on the rate of growth (as well as on the short-run fluctuations) of the other centers and of the periphery of world economy.

If the principal center, through the high level of its own imports, creates a great import capacity for its products in countries in the rest of the world, these countries may not only have a relatively high coefficient of imports (in relation to their income) from the center, but also from each other. World trade then constitutes a relatively high proportion of world income and multilateralism flourishes.

But if the principal center has a low level of imports, the countries in the rest of the world are forced to reduce their coefficient of imports from the center, and under the multilateral trade principle they are also forced to restrict imports from each other, as they cannot discriminate against the principal center.

Of course, every country, great or small, which has no disparities in foreign trade elasticities to correct and which resorts to protectionism has an unfavorable influence on world trade. But the greater the country the larger is its influence and the greater its responsibility.

Far-reaching changes have occurred in the pattern of world trade. In the nineteenth century, under the aegis of the United Kingdom as the world's principal dynamic center, trade developed at a very fast rate. The center's import coefficient was very high, which made it easy for the other countries of the world to have a high coefficient, too, not only with the center, but also with each other.

Moreover, the principal center's import coefficient increased continuously throughout almost the entire century, offsetting in the peripheral countries the effects of the lower income-demand elasticity for their primary commodities.

By contrast, the United States has always been a country of relatively low import coefficients, because of its natural resources and protectionist policy. Furthermore, this coefficient has been continually dropping. Nevertheless, at the time of British trade hegemony this decline had no apparent effects on world trade. Indeed, the extraordinary rate of growth of the United States economy tended to compensate for these effects, and its imports from the rest of the world grew at a very



fast pace. On the other hand, this rate of growth, so much higher than that of the rest of the world, considerably enhanced the relative importance of the United States in world economy, transforming it eventually into the principal dynamic center.

A principal center with a relatively low level of imports from the rest of the world in relation to the latter's income necessarily exerts a powerful influence on the pattern of world trade. This influence began to be felt as the rate of growth of the United States economy was gradually losing its nineteenth-century impetus, due to the decline in the rate of population increase, while at the same time this country was increasing its competitiveness on world markets.

This process reached a crisis with the great world depression. A further compression of the United States import coefficient and a rather lengthy pause in the growth of the economy have had a considerable impact on world trade and economy. And the world suffered considerable hardship in adapting to these events at the new dynamic center.

Bilateral trade emerged. It was a precarious and largely unsuccessful attempt to maintain trade among other countries, while imports from the United States were adjusted to the capacity to import. Multilateralism and the gold standard were destroyed and can only be restored—on a new basis—once structural changes in world trade and payments have been finally adapted to the new dynamic center with its very low import coefficient.

The long overdue formation of common markets in Europe—based on preferences—means that that inorganic bilateral reaction is being transformed into a rational policy of restricted multilateralism, with intense trade between its members and a coefficient of imports from the principal center geared to the capacity to import generated by it. Let us hope that the coefficient of imports from the rest of the world will not be unnecessarily forced down.

Destruction of world multilateralism and the decline in the relative importance of world trade has had serious consequences for the Latin-American countries. Their capacity to import is very low indeed in relation to their needs, given the present structure of production. This has been one of the major obstacles retarding the pace of industrial growth. Furthermore, it has forced countries to increase the proportion of domestic industrial production within total industrial demand through a more intense process of import substitution than would have been advisable under more favorable conditions of world trade.

On the other hand, this process of industrialization has been carried out without destroying the old pattern according to which each of the Latin-American countries is orientated in its trade towards the industrial centers, with very weak mutual trade. Trade between Latin-Amer-

can countries forms only 10 per cent of their total foreign trade, and industrial exports are relatively very small by contrast with countries such as Italy, Japan, and others with similar income levels. All this has resulted in the splitting of the industrialization process into as many watertight compartments as there are countries, without the advantages of specialization and the economies of scale.

The response to this should be the enlargement of national markets through the gradual establishment of a common market. But the common market, just as in Europe, cannot be established on the basis of the principle of universal multilateralism. Preferential treatment is needed inside the area to promote specialization in industrial products and primary commodities. European countries need preferences between them mainly to restore a pattern of very intensive mutual trade, which has been impaired in the way we have seen, whereas Latin America needs preferences to develop new forms of reciprocal trade, mainly in industrial products, that practically did not exist before.

Latin-American protectionism and preferences, if kept within reasonable limits inside a common market, will not hamper world trade. Imports from the centers will continue to depend on Latin-American exports to them—a clearly passive situation. The only changes—and these will be very important indeed—will take place in import composition, and through them countries will specialize in industrial products as well as agricultural ones. Without the common market, there will be a continued tendency by each country to try to produce everything—say from automobiles to machinery—under the sheltering wing of very high protection.

These are not the only considerations making the common market appear imperative. Paradoxically enough, the more advanced Latin-American countries are tending to become more externally vulnerable because of the form that industrialization has taken. In the process of import substitution, accentuated by adverse trade conditions, they have compressed their import requirements to a series of goods absolutely essential for the maintenance and growth of their economy and have lost the margin for the further reduction in imports which they had when they imported consumer goods. Thus an unfavorable fluctuation in exports tends to have critical effects on economic development far more so than when, as in former times, vulnerability was more on the demand side. The common market by diversifying trade within the area can gradually correct this situation. This is without detriment to the possibilities of developing industrial exports to countries outside the region that the common market may foster through the reduction of industrial costs.

The favorable attitude shown by the United States government, as

well as others, towards the formation of a Latin-American common market is most encouraging and may be a very important element in the framing of a commercial policy geared to the need for accelerating the rate of Latin-American development.

A vigorous policy of industrialization is required as an inevitable complement to technical progress in primary production. In this connection, the decisive support given by the United States government (through the Export-Import Bank) to the establishment of the iron and steel industry in some Latin-American countries is a noteworthy step in the right direction. Its significance lies in the fact that not only was a positive stand taken as regards heavy industry in the region, which has been and still is the subject of considerable controversy, but that financial and technical support were given to Latin-American entrepreneurs. While the contribution of foreign enterprises to development is highly valuable, it is essential for the promotion and consolidation of free enterprise to encourage the ability and initiative of the Latin-American entrepreneur as well.

Industrialization needs a dynamic policy of protection, which should be continually adapted so as to introduce new changes in import composition as the economy develops and disparities in the income elasticity of demand play their role. Trade treaties should not try to crystallize existing situations but should be flexible enough to promote these changes in import composition in an orderly, selective, and rational way.

As for the common market, there is no fixed blueprint. Help is needed within the GATT and other bodies to explore new paths in accordance with Latin-American conditions and potentialities.

In all the foregoing, there is ample room for new forms of reciprocity. Duty concessions by the centers, apart from their influence on a sound protection policy in Latin-American countries, may become a very useful instrument for inducing measures of trade liberalization and economic integration between these countries. And the gradual relaxation or elimination of the preference given to certain imports from the United States in some Latin-American countries may serve this purpose very effectively.

## APPENDIX

Let us see how the process of spontaneous industrialization might operate according to the classical mechanism, assuming that there is free mobility of labor and unrestricted competition. We are concerned here only with the alternative employment of the surplus manpower in export production and industrial activities: for the sake of simplicity, other aspects will be overlooked. For this same reason, we have

resorted to a simplified diagram (Figure 1) in order to illustrate our point.

In this diagram, the surplus manpower to be employed in both activities over a given period of time is represented by the axis  $OP$ . Growth of income at the center and its income elasticity of demand

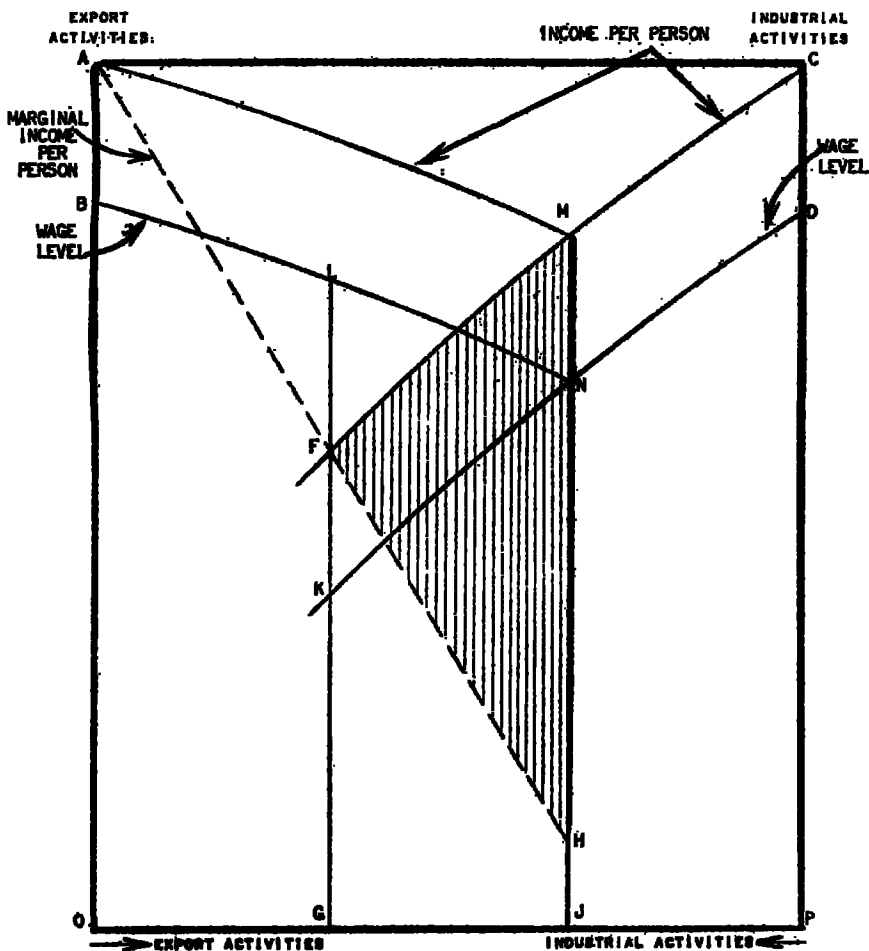


FIGURE 1

will determine up to what point additional production for export at the periphery could be sold at constant prices. This is assumed to be point  $O$ . From  $O$  towards  $P$ , beyond this point of constant prices, successive increments of employment are added to export activities; and in the opposite direction, from  $P$  towards  $O$ , successive increments of employ-

ment are added to industrial activities in new branches of production.

Furthermore, we assume, for the time being, that real income per person employed in export activities, represented by  $AO$ , is the same as  $CP$  in industrial activities at the beginning of the process, and that real wages,  $BO$  and  $DP$ , respectively, are also the same.

As increments of employment are added in export activities beyond the point of constant prices, the fall in prices exerts a downward pressure on per capita income along the line  $AM$ , and wages accordingly decline in a parallel manner along the line  $BN$ . Constant unit profits have been assumed in order not to complicate our reasoning. Given the high mobility of labor, the decline of wages in exports permeates into industry.

Let us see what happens there. At point  $P$  industrial costs are competitive with import prices. But new branches of industry have costs higher than import prices and per capita income there is lower than at that point  $P$ . As wages fall, those branches with the smaller difference between cost and import prices will be first affected, followed by others with inferior productivity, measured by the decline of the curve  $CF$  of per capita income (corresponding to a declining productivity ratio with the center).

In this way, per capita income in export activities falls correspondingly with the decline in prices; the same thing happens in industrial activities due to higher costs of successive new branches of industry.  $H$  is an equilibrium point at which the surplus manpower is distributed between the two activities.

Meanwhile marginal income per person has been declining faster than income per person employed in export activities, along the line  $AH$ ; and at the equilibrium point it is represented by  $HJ$ , which is much smaller than  $NJ$ ; that is to say, marginal income in industrial activities. Indeed, after employment in export activities has proceeded beyond point  $G$ , marginal income per person in these activities has been lower than in industry.

Income per person employed in export activities is the result of successive increments of employment leading to constant increments of physical exports, at diminishing prices.

Marginal income per person, on the other hand, is the result of every addition of income per person to previous export income, less the transfer of part of this latter due to the fall of prices. It so happens that, while per capita income continually diminishes, that transfer of income to the outer world becomes steadily greater due to the fact that the fall in prices affects increasing aggregate physical exports.

In this way, marginal income declines faster than per capita income and may even be negative if, after a certain point, employment in ex-

port activities continues to augment, thus reducing instead of increasing the aggregate export income.

In industry, marginal income per person is the same as per capita income, from the point of view of the economy as a whole. Indeed, there is no such transfer of real income to the outer world as in the case of exports. The fall of wages has brought also a decline of prices in existing industries; but this involves a purely internal transfer, whereas in export activities there is an external loss of income which reduces the increment of income due to the employment of the surplus manpower.

This transfer could have been reduced if the surplus manpower in exports had been stopped at point *G*, where the marginal income per person from exports is equal to marginal income in industry. It is true that if employment in the latter had been extended from *J* to *G*, marginal income per person there (as well as per capita income) would have continued to decline, due to higher costs as compared with import prices. But even so, the aggregate marginal income thus generated by industry, represented by the area *FGJM*, is greater than that which would have been generated by exports, represented by the area *FGJH*, if employment increments had proceeded up to *J*. The difference between the two areas, *FHM*, is the net loss due to the spontaneous process of industrialization.

The optimum solution is to stop exports at point *F*, where their marginal income per person is the same as in industry. This is the point of maximum increment of real income derived from the employment of the surplus manpower; before or beyond that point, the increment will be less. However, at this point wages in exports, *GL*, are above the level that could make it attractive to invest in extending employment up to this point *G*. Therefore it would be necessary at this optimum point to levy import duties high enough to allow industry to pay the same level of wages as exports. In other branches to the right of *G*, which have better productivity, the need for protection would be less.

The real magnitude of the outward transfer of income depends chiefly on the income and price elasticities of demand for exports and the difference between internal costs of industrial production and import prices. The larger this difference and the lower the elasticities, the higher is the transfer of real income to the outer world.

We have assumed equality of income per person in exports and industry at the beginning of the process. To abandon this assumption does not modify our reasoning, except in cases where per capita income in exports and the price and income elasticity of demand of these are so high that marginal income per person is still greater than the rate of wages at the equilibrium point (*N*). It does not seem that this

case is typical in Latin America. It is true that in some mineral exports per capita income is relatively high, due to a great proportion of land rent, but elasticities are not high and furthermore these activities absorb only a relatively small part of manpower; thus employment of a substantial proportion of its increment in increasing exports may reduce prices in such a way that marginal increments of income might decrease at a very fast rate and intersect marginal increments of income in industry much before the equilibrium point.

