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Foreign Trade Problems in Economic Development

by

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Since the end of World War II, underdeveloped countries, in increasing number, have made decisive efforts to accelerate their economic development. This change has added a new dimension to their foreign trade problems, and currently most of these countries are ~~at present~~ confronting the problem of a foreign exchange shortage which threatens to check the rate of economic growth. An increasingly large volume has been recently written by economists on the relationship between international trade and economic development. This material has greatly helped us to understand the nature of the present problem and what has happened in the past. But it seems that much thought is still needed on the possible and desirable future course of trade of developing countries. This paper, written at a short notice, does not attempt a comprehensive approach; it merely tries to link some main current thoughts in interpreting the past trade trend of underdeveloped countries with their present trade position. It is hoped that the discussion will be of some use in contemplating the prospects of trade and trade policies of developing countries.

I

Underdeveloped countries are predominantly primary exporting countries. Their trade pattern, especially before World War I, was clearly an exchange of home-produced food and agricultural and mineral raw materials for imported manufactured goods. Such a trade pattern, usually called the "nineteenth century trade pattern," can be easily explained by the classical or neo-classical theory of comparative advantages based upon differences in resource endowment of trading nations. However, a question arises as to why the advantages so derived from foreign trade have not helped to achieve self-sustained economic growth in these countries.

Apparently the classical theory of international trade as traditionally interpreted cannot answer satisfactorily this question. The classical theory is interested only in explaining in a static sense the gains arising out of foreign trade in terms of welfare. Within its framework of analysis, the production equilibrium position, when

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1/ The paper expresses the personal views of the author, and does not necessarily reflect those of the International Bank for Reconstruction and Development, with which he is presently associated.

a country is opened to foreign trade, moves along a given production possibility curve and is fixed at a point on the curve. The net effect of such commodity trade is to increase the country's consumption equilibrium point to an indifference curve of a higher order. The given production possibility curve means production is carrying on a certain given level of technology, with a given amount of always fully utilized resources. The change in production as a result of foreign trade is therefore only a reallocation of resources between the home and export sectors.

While the gains in welfare resulting from international trade are undeniable, gains in production other than a more economical reallocation of given resources should also not be overlooked. Such changes could be the introduction of technical and market innovation, the accumulation of capital, the improvement in the quality of labor, an increase in the employment of labor, an increase in the cultivated area of land, etc. But such changes in the extent of utilization and improvement of human and natural resources are not taken into account in the classical theory. If they were, analytically it would mean changes in the shape and shifting of the position of the production possibility curve itself.

In the historical context of less-developed countries, such basic changes did happen when they were opened to world trade in the eighteenth and nineteenth centuries. Capital, entrepreneurship and techniques were imported from the advanced countries and contributed heavily to the increased production of export commodities. "Typically in this case, it is the foreigners who see the possibilities of the expansion of some primary product in a new area. They come in and organize new low-cost production in, say, diamonds, copper, tea and rubber. Usually they provide the capital and the technical skill for the expansion though local peasants may respond to the chances of profit with remarkable increases in output. Foreigners provide the necessary loans to the local governments for railway, road and harbour extensions. The banking and marketing services which develop are foreign in origin and limit themselves to linking the export economy with the world overseas.... We have seen this type of development in many parts of the world, Africa, India, Latin America and the Far East."1/

In fact, not all the classical economists have neglected the contribution of international trade to the improvement of productive capacity. Professor Hla Myint found some such dynamic effects are traceable to the

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1/ K. Berrill, "International Trade and the Rate of Economic Growth," The Economic History Review, Second Series, Vol. XII, No. 3, 1960, p. 355

writings of Adam Smith and J. S. Mill.[1] Recently, Professor G. Haberler has spelled out in some detail the somewhat neglected implications of classical trade theory for economic development. He mentioned four important dynamic and indirect benefits that trade bestows on economic development in underdeveloped countries: (1) the provision of material means (capital goods, machinery, and raw and semi-finished materials); (2) the dissemination of technological knowledge and the transmission of managerial talents and entrepreneurship; (3) the international movements of capital; and (4) the anti-monopoly policy in accompany with free international trade.[2] However, it is fair to say that, generally, the static comparative costs doctrine does play a central role in the interpretation of international specialization and trade by the classical school as a whole. The recent discovery of some growth elements in it is chiefly a response to a new urge for a more dynamic theory of international trade.

II

If the traditional pattern of international trade has, in fact, increased both the welfare and productive capacity of the primary exporting countries, why were these countries not led to a state of self-sustained growth? Explanations may be sought from both the demand (and market) side and the supply (and production) side.

First, consider the demand side. Haberler maintains that if international trade enables a country to produce cheaper goods to exchange for what other countries can produce at a lower cost, such an exchange raises the level of income and also promotes economic development.[3] Presumably this means that an increase in effective demand would lead to an increase in investment and further increase in income. However, in the "nineteenth century" pattern of international trade, a substantial portion of the effective demand generated by foreign trade did not remain home, but leaked abroad. Foreign shareholders received their dividends abroad and foreign managers and labor remitted much of their savings abroad. The savings of foreign corporations were also retained in the metropolitan countries, and whenever the accumulated funds were used for replacement or for new investment in capital equipment, they were spent abroad, for there was no local capital goods industry to speak of. Such international transactions were facilitated particularly by the maintenance of an exchange standard monetary system which was free from any control. The saving-investment leakage was further aggravated by the consumption-import leakage, for many kinds of manufacturing industry did not exist locally. Even where there were local

1/ Hla Myint, "The 'Classical Theory' of International Trade and the Underdeveloped Countries," Economic Journal, June 1958

2/ G. Haberler, International Trade and Economic Development, (Cairo, 1959), pp. 10-11

3/ Ibid., p. 6

goods available, imported goods were often either cheaper or more appealing in quality. In addition to the exchange standard monetary system, the maintenance of a free trade policy--the absence of tariff and quota--helped greatly in keeping imported (consumption and investment) goods cheaper.1/ Owing to these two large leakages, the small local market for domestic products became even smaller. The transmission line from the expansion of the export sector to that of the home sector was therefore substantially narrowed.

On the supply side, a very interesting explanation was offered by Myint. He observes that the international specialization which occurred to the primary exporting countries was not quite conducive to cumulative improvements in skills and productivity per man-hour, but rather led to "once-for-all increases in productivity accompanying the transfer of labor from the subsistence economy to the mines and plantations."2/ This once-for-all improvement was, as argued by Myint, due to the fact that there was neither incentive nor time for introducing new techniques and new equipment after the initial investment in capital equipment and training in labor had been made in plantations and mines. Whenever there was a boom in the world market, the enterprises sought further supplies of cheap labor from the subsistence economy or immigration. Moreover, the commodity booms usually came suddenly, were short lived, and allowed no time to introduce and absorb innovation. In the case of traditional crops (e.g., rice, cotton), the expansion in export production was achieved simply by bringing more land under cultivation or by placing more labor on land with the same methods of cultivation. During depression periods, there was neither incentive nor finance for new investment. Thus, once the economy was opened to international trade, further expansion in exports was made only periodically by capital-widening investment rather than capital-deepening investment, and expansion was not accompanied by continuous innovation after the initial increase of productivity. The source of growth power was exhausted rather quickly.

Myint's theory, however, explains only one aspect of the whole story, i.e., why productivity in the export sector has not improved continuously. It does not explain why the initial increase in productivity and output in the export sector has not spread to the home sector of the economy. Such spread could be made possible by an overall increase in national income and inter-industry demand. The

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1/ See Berrill, op. cit., pp. 355-356

2/ Myint, op. cit., p. 320

inefficacy of the overall increase in income has already been explained by the investment and consumption leakages abroad. More specific reasons perhaps could be sought in the inter-industry relation aspect of production.

An industry which produces a certain commodity has both backward and forward links with other industries in the whole production structure of an economy. Backward linkage means the requirements of input-provision (raw materials, semi-finished goods, etc.) from other branches of production to be used in the production of the industry in question, i.e., the requirements of coal and transport service in the production of steel. Forward linkage means the supply of output of the industry in question for the utilization of other branches of production. The backward and forward linkages represent a kind of inter-industry demand and supply--a network of input-output relation. The higher the backward or forward linkages of a new industry, the more the spread of its development-inducing effect in the domestic economy. In fact, unless a country is large in size and diversified in resource endowment, such linkages will be to a considerable extent transmitted abroad through foreign trade. The extent of backward and forward linkages depends on the commodity produced. Primary products have very low backward linkages, but because they are subject to a number of stages of further processing and manufacturing, their forward linkage is high.

Most of our less-developed countries are not very large in size, and the known resources and production pattern (especially after opening to international trade) are skewed. Outside the subsistence sector, production is highly concentrated on a few primary export commodities. According to the statistical study of Chenery and Watanabe, the average degree of backward linkage (inside the economy) in Italy, Japan and the United States, defined as the ratio of inter-industry purchases to total production, is as low as 15 per cent in petroleum and natural gas, 17 per cent in non-metallic minerals, 21 per cent in metal mining, 24 per cent in fishing and 31 per cent in agriculture and forestry. This compares with the corresponding ratio of 50 to 90 per cent for most "intermediate" and "final" manufacture.1/ The backward linkage of these lines of primary production in our less-developed countries would be even lower than those given above, considering that they have to import many producer's goods needed in production. Primary production generally has a very high degree of forward linkage. In most fields of primary production in Italy, Japan and the United States, it is higher than 50 per cent. This is because there are such intermediate ~~and~~ manufacturing industries as petroleum refinery, petro-chemicals, steel, and engineering, ~~machinery~~ to make use of the raw materials. But in less-developed countries, such intermediate manufactures are almost

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1/ Quoted by A. O. Hirschman in his The Strategy of Economic Development, (Yale, 1958), pp. 106-107

non-existent. The high forward linkage, which involves high growth potential, is exported rather than retained in the home sectors of the economies.

Another limitation of the growth spread effect of international trade which is often overlooked is the cost of transformation from primary resources to readily available factors of production, or effective supply.1/ There is abundant cheap labor available in many over-populated areas of the underdeveloped world. But to make use of such labor in the non-subsistence sector involves investment in moving the labor to certain places where new industries are located and in giving them necessary skill training. It is only after going through such "refining" process that cheaper labor could become available immediately to industries. Similarly, mineral resources may exist in a poor country, but could not be utilized because of lack of access by mass transportation means. Land may be fertile, but only usable after reclamation. It is only after such "resource development" investment is made that these "primary" resources become real factors of production and begin to furnish

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1/ Even in the United Kingdom, the growth effect of foreign trade spread only gradually from the localized centers in the North and the Midlands to wider areas. "The second possible channel of causation may be discovered in the establishment of enclaves of higher industrial efficiency, introduced first through foreign trade, which have spread their infection progressively over wider areas until a whole nation is carried progressively towards an accelerated growth. Whatever may have happened in the last half of the eighteenth century in the United Kingdom quite certainly did not happen uniformly over the whole of the area that then composed the United Kingdom. Ireland was almost wholly left out and has remained relatively underdeveloped in most of the senses in which one uses that word today. Northern Scotland was equally left out. More important, the initial growth was very largely concentrated in the North and in the Midlands. ... It spread only slowly to the South, and the South has had most of its industrial revolution within my own lifetime and memory. The initial "take-off" was a local phenomenon which only progressively embraced and carried forward the whole country." E.A.G. Robinson, "Foreign Trade in a Developing Economy," a paper contributed to the International Economic Association Round Table Conference in Gamagori, Japan, 1960; p. 8.

a flow of services for use in the production process.[1] Thus, even if there exist possibilities of forward linkage in the home sector of the economy, it may not become effective because of lack of effective supply of required factors of production. Foreigners could be least interested in this tremendous undertaking of resource development, not only because the products are not for export to the world market (their domestic markets are small), but also because these products would be in competition with similar imports which foreigners supply. Local private entrepreneurs do not have the ability to develop resources in view of the enormous technical knowledge and large amount of capital needed.

It cannot be denied that international trade has stimulated the creation of additional or new factor supplies out of God-given endowment of resources in less-developed countries, but there seems still large room for further development in those home sectors which have not yet been touched by the traditional international trade. The development of those sectors need not reduce the existing level of international trade; it represents a new effort. After all, one perhaps cannot expect international trade to be the sole "engine of growth" in all cases.

Historically speaking, the traditional pattern of trade, accompanied by large international flow of capital, did help greatly the growth of the countries of recent settlements in the temperate latitudes outside Europe, especially the United States, Canada, Argentina and Australia. As pointed out by the late Professor Nurkse, international investment of Britain, the major capital exporting country in the nineteenth century, flowed mostly to these countries. The hugh capital inflow was coupled with large number of immigrants from Europe who carried the technical knowledge and skill with them. Moreover, these areas were sparsely populated and growth along familiar western lines was exceptionally favorable. In these cases, international trade apparently succeeded in fermenting growth. But, again as noted by Nurkse, in the nineteenth century, the needy countries with "teeming millions" which

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1/ One of the drawbacks of the classical theory is the lack of clear distinction between resources and factors of production as pointed out by Romney Robinson. He criticized that the fixed factor supplies assumption of the classical comparative cost theory is somewhat incompatible with the effects of trade on resources development in the long-run. Cf. Romney Robinson, "Factor Proportions and Comparative Advantage," Quarterly Journal of Economics, August 1956, pp. 346-350.

also played their part in the traditional pattern of trade were indeed neglected by large international investment.[1] To these countries, the traditional pattern of international trade evidently had not spread sufficiently the power of growth. It was apparently too much inclined to imports in connection with both overall demand and inter-industry relation and not so forceful enough as to induce domestic resource development. The economies of these countries have to be further developed within. They have to be made more receptive to technical progress and absorptive of capital investment.

III

What are the recent trends in the international trade of the less-developed countries? Apparently, their export performance has been generally discouraging. According to the United Nations statistics, during 1959-61, the level of export value of the world's underdeveloped areas was four-and-a-half times the prewar (1938) level, while that for developed areas, five-and-a-half times.[2] The non-petroleum exporting countries should be worse than the average, for the export increase of underdeveloped countries as a whole was to a large extent accounted for by the extraordinary export increase (seven times between 1937-38 and 1955) of countries exporting mainly petroleum.[3] The south and south-east Asian countries, which export largely foodstuffs and agricultural raw materials, are doing particularly badly. In 1959-61, the total export value of this area was less than three times the prewar level.[4]

To most primary exporting countries, export is the major dynamic factor in determining the level of general economic activity. When export increases, the national income, investment, consumption, and government revenue all increase. Increased export earnings also provide larger amount of foreign exchange to finance more imports to meet increased consumption and investment. Although in the larger countries, such as India, and semi-industrialized countries, such as Mexico, domestic investment is as important as export or even more important than

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1/ Ragnar Nurkse, Equilibrium and Growth in the World Economy, ed. by G. Haberler and R. M. Stern, p. 141

2/ United Nations, Economic Survey of Asia and the Far East, 1962, pp. 18-19

3/ General Agreement on Tariffs and Trade, Trends in International Trade, A Report by a Panel of Experts, Geneva, 1958; p. 23

4/ ECAFE Survey, 1962, ibid.

export, in most less-developed countries, export is the most important active factor in generating economic activity. The slow growth of their export, if not accompanied by the development of the home sector, would mean a slow rate of economic growth in general. In the industrially advanced countries, while their export has increased faster than that of the underdeveloped areas as a whole, their production has generally increased even faster. Their growth rate tends to be higher than that of underdeveloped countries. If this trend of disparity in export growth continues, and development on the home front is not vigorously pursuited pursued in the underdeveloped countries, then the gap of income levels between developed and underdeveloped countries will tend to be widened.

There has been a great deal of inquiries recently made on the causes of the slow growth of primary exports (except petroleum) [particularly in the United Nations and G.A.T.T. publications]. Most of these inquiries emphasize the deficiency in world demand as a major cause. The basic reasons of this demand deficiency may be explained in terms of income and substitution effects. The income effect, relating to foodstuffs, is an application of Engel's law on the international plane. The higher the income level in the importing countries, the less proportionally the people there will spend on ~~foodstuffs, including~~ imported foodstuffs. In other words, the income elasticity of demand for food items is believed to be smaller than the income elasticity of demand for non-food commodities, particularly in the richer countries. Coffee may serve as an example as a major commodity in the foodstuff category, bearing a low income elasticity of demand.

The substitution effect works mainly on raw materials. It is well-known that many synthetic products innovated in the industrialized countries have increasingly replaced natural products exported chiefly from underdeveloped countries. Synthetic rubber vs. natural rubber, chemical fibers vs. silk and cotton, plastics vs. wood and leather, paper bags vs. jute bags, detergents vs. vegetable oil fats for making soap, to mention just a few. A most recent example is a new development in making synthetic rubber. For some time, the prospects of natural rubber had been considered as fortunately good, for in a large segment of rubber use, i.e., tire-making, synthetic rubber could not match natural rubber. However, very recently it is reported that a natural-like synthetic rubber closely resembling tree rubber, is being successfully produced and is being increasingly used in making rubber tires. This development has recently helped to drive the natural rubber price down.1/

1/ "Expanding synthetic capacity, particularly for tires closely resembling tree rubber, prod prices downward. Rubber manufacturers chewed up 234,696 tons of natural rubber in the first half of 1963, about 1% less than a year earlier. But use of the new stereo, or natural-like synthetics, more than doubled to 53,000; overall synthetic consumption climbed 6% to 631,566." The Wall Street Journal, August 13, 1963.

Another aspect of the substitution effect is the development of new ~~production~~ techniques ~~in the~~ manufacturing ~~industry~~ which resulted in the use of less raw materials per unit of output. This may be regarded as a direct substitution of technology for raw materials inputs. One notable example is the development of the electrolytic process of coating tin on steel sheet for making cans, which resulted in the saving of one-half or more, of tin.

One may argue that technical innovation in inducing synthetic substitutes and new processes has been stimulated by periodically insufficient supply and high prices of raw materials. Professor A. K. Cairncross points out that the failure of industrial countries to expand their imports of primary products between 1937 and 1957 in proportion to their economic growth must have been due, in part at least, to the price factor. He ~~further~~ argues the sharper rise in prices of exports from the non-industrial countries than the prices obtained by industrial countries for their primary exports during this period, "reflected the acute pressure of supplies of primary produce in a fully-employed economy--a pressure that continued because of the low elasticity of supply of the produce." He also points out that in post-war years governments and marketing boards in these exporting countries "have been concerned to skim off finance for other forms of development than to let high prices do the job of increasing production for such primary export commodities." He further argues: "Here, surely, is a powerful reason for industrialized countries to develop domestic supplies of primary produce, to economize in the use of imported materials, and to accelerate the introduction of substitute."1/ However, it seems rather doubtful whether the increases of export taxes, the application of state trading and multiple exchange rates during the Korean war boom had really siphoned off entirely the increases in world market prices of primary exports from the underdeveloped countries. More close to the actual fact, at least in south and southeast Asia countries, is perhaps that a part, sometimes might a substantial part, of the "windfall" gains did go to the producers (with perhaps the only marked exception of Burmese rice), which should be large enough to provide incentives for increasing production. The fiscal and monetary measures aimed chiefly at reducing the inflationary impact arising out of an export boom generated from abroad.2/ The impediments to a quick increase in supply of primary exports to price rises must be sought elsewhere.

1/ A. K. Cairncross, "International Trade and Economic Development," Kyklos, Vol. xiii, Fasc. 4, 1960

2/ United Nations, Economic Survey of Asia and the Far East, 1957, Chapters 5 and 6, "Export Instability of Primary Producing Countries."

One factor is that for agricultural products there is a certain time period required from planting to mature. For tree crops this period can be quite long, e.g., seven years for rubber trees. If the long-term prospects of the demand for and price of the primary produce concerned are not very promising, then the incentive in the private sector for investing more in this line of production will be weak. In Malaya, it is the Federal government which took the initiative and made the financial and other arrangements to replant high-yielding rubber trees. (A large part of the fund comes from rubber export taxes.) The effect on supply of price instability brings in again the demand factor from the backdoor.

Natural limitations in production may be overcome by scientific and technical innovations accompanied by capital investment. This is the way the industrial countries react to substantial changes in demand and supply conditions. Thus, Professor J.R.T. Hughes, from many historical evidences, concludes: "Where the reaction to foreign trade gave rise to supply shortages, the Western countries responded by new factor combinations, the "productivity" derived from trade..."1/ For the underdeveloped countries, he suggests a study of relative impediments to factor mobility and policies (economic, social and cultural) to remove these impediments. The question therefore ~~comes~~ fall back ~~to~~ on the need of resource development, or a removal of general supply impediments to all possible lines of production, not just the production of traditional primary exports. It is perhaps in the sense that the supply deficiency argument has its true meaning.

1/ J. R. T. Hughes, "Foreign Trade and Balanced Growth: the Historical Framework," American Economic Review, May 1959, pp. 336-337

IV

Realizing the lag of traditional primary exports behind the world trade, many underdeveloped countries have during the post-war period, one after another made decisive efforts in developing their economies on all fronts. A common feature is to emphasize on import substitution. This is partly a long-run policy of industrialization and partly a result of the measures taken to safeguard the balance of payments position. Import substitution perhaps is one of the easiest thing to start with in economic development, for here the domestic market demand exists; what is needed is to restrict imports. Import restriction not only serves to retain a large portion of demand at home but also prevents further increases in domestic demand (resulting from rises in population and per capita income) from leaking too much abroad. There ends the free trade policy and the exchange standard monetary system.

Import control has not only helped industrialization and economic development on the demand side, but also on the supply side. For by restricting imports of non-essential consumer goods, it increases the supply of foreign exchange available for essential consumer goods, capital goods and industrial raw materials. The liberal import policy applies to capital goods manifested not only in foreign exchange and import quota allocation, but also in low tariffs or even tariff exemptions. In the new tariff schedules of many ECAFE countries, for instance, "essential food and capital goods are particularly favoured as against manufactured goods which are deemed luxurious or which compete with locally manufactured goods."1/

Considering the limitation of general foreign exchange shortage, this policy has contributed greatly to capital formation in underdeveloped countries. Thus, for the developing ECAFE countries (largely in south and southeast Asia) as a whole, while total imports increased by only 11 per cent in the nineteen fifties, imports of capital goods rose by 65 per cent and imports of materials for capital goods by 45 per cent. As a result, in 1958-60, imports of capital goods and materials for capital goods accounted for two-fifths of the area's total imports.2/

The considerable increase in capital goods supply tends to change the factor supplies situation and therefore the base of comparative advantages in their future international trade.3/

Import substitution, indeed, plays a major role in industrialization. In his cross-section correlation analysis of fifty-one developed and underdeveloped countries, Professor H. B. Chenery found that the increased share

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1/ ECAFE, Survey, 1962, p. 89

2/ Ibid., pp. 86-88

3/ The difference in growth potentials between capital goods and consumption goods imports should form an integral part of any dynamic theory of international trade and trade policy.

of domestic production in total supply, defined here as import substitution, is more important than the pure demand effects, since it accounts for 50 per cent of industrialization." 1/ Increase in final demand resulting from income growth, according to his estimate, accounts for only 22 per cent. The United Nations' World Economic Survey in its study on post-war industrialization for economic development in the underdeveloped countries also concludes: "Of more frequent importance has been the extent to which the expansion of domestic manufacturing output has resulted in the replacement of imported goods by domestic products." 2/

However, import substitution cannot proceed forever without limits. Abuses in protection will result in inefficiency and high cost. When import substitution proceeds from those most suitable lines of production (e.g., cotton textiles), to less and less suitable fields, profitable opportunities tend to be gradually exhausted. Also, the domestic market even with protection may still be too small to permit many industries (e.g., chemical fertilizer, newsprint, etc.) to operate at an economically large scale. This is particularly true with smaller underdeveloped countries where in addition to the low per capita income, the population size is also small.

The U.N. Survey found that "the role of import substitution tends to diminish quite sharply as countries reach more advanced stages of industrial development." "In such countries as Brazil and Mexico, for example, the effect of the growth of domestic production in replacing imports has been relatively moderate in recent years. This, it should be noted, does not mean that such import substitution as has taken place has failed to result in significant foreign exchange saving, but it does suggest that the scope which import substitution offers as a means of rapidly augmenting the supply of foreign exchange available for imports of capital goods contracts markedly as countries reach more advanced stages of industrialization." 3/

To overcome the narrowness of domestic market, it has been suggested that the underdeveloped countries should form a kind of regional custom unions or any other kind of regional trade arrangements in order to extend import substitution to a larger regional scope. 4/ While this proposal, if it works, may help substantially to solve the market problem, it seems still insufficient. For one has to remember that all the underdeveloped countries rely heavily on the developed countries for the supply of producer's goods, especially those types of producer's goods which are embodied with high contents of technical innovations. Though some developing countries have developed or are

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1/ H. B. Chenery, "Patterns of Industrial Growth," American Economic Review, September 1960, p. 641

2/ United Nations, World Economic Survey, 1961, p. 40

3/ Ibid., p. 42

4/ E. g. Nurkse, op. cit., pp. 318-319

developing steel and chemical industries, they may still have to import a lot of machinery and chemical products from the industrial countries for many years to come. To obtain these important producer's goods, the underdeveloped countries have to pay by their exports to the developed countries, unless the latter increase their credit and capital fund supply.

If (a) the future prospects of primary exports are not promising, (b) the scope of national import substitution tends to be gradually narrowed, and (c) regional import substitution cannot solve the problem of capital goods supply, then the developing countries will have to seek alternative means to obtain more foreign exchange for meeting the enlarged requirement of capital formation. One alternative is to develop domestic capital goods industry. But this apparently cannot be done for most developing countries because of the lack of required resources (e.g., iron ore, coking coal for iron and steel industry), technical knowledge and skill and a sufficiently large home market. For some countries such as India and for some simple capital goods there may exist possibilities but for most developing countries the scope of this alternative appears to be small. Another alternative is to increase the flow of external capital. This will provide finance for capital formation and at the same time ease the tight balance of payments position. However, international loans (bilateral loans are increasingly tending to replace grants) have to be serviced and amortized or, in other words, they have to be eventually paid back by exports. There is therefore no escape from the basic solution of export expansion. And since primary exports are generally not very promising, the alternative falls on the expansion of exports of manufactures.

V

It is indeed a formidable task for latecomers in industrialization to break into world markets of manufactured goods. However, there are actually a few successful cases, such as Puerto Rico, Hong Kong, Israel and Jamaica; and perhaps very soon to be followed by China: Taiwan and Singapore (or the future Malaysia); not to mention the classical example of Japan.1/ In view of the wide differences in resource pattern and stage of development, such export-led growth may not be possible for many developing countries to follow. It is interesting, nevertheless, to note that manufactured exports although still occupy a rather small portion (22 per cent in 1960) of the total exports of the "developing ECAFE region," their rate of increase during the latter half of the nineteen-fifties is the highest among major export commodity groups. During 1955-60, while total exports of the region increased by 11.5 per cent, manufactured exports increased by 40 per cent; the increase of the latter to the developed areas is even higher--

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1/ Cf. Joseph E. Haring, "Export Industrialism and Economic Growth; A Dynamic Model," The Western Economic Journal, Volume I, No. 2, Spring 1963, and "Dynamic Trade Theory and Growth in Poor Countries," Kyklos, Vol. XVI-1963-Fasc. 3.

being a phenomenal 74 per cent. 1/

The recent divergent movements of primary and manufactured exports of the developing ECAFE region may be explained by the difference in the income elasticity of demand for them. If this is so, the high income elasticity of demand alone can justify the development of exports of manufactures. In this connection, one should again not think of classical, static comparative advantages and the traditional pattern of trade as unchangeable. Indeed, the deliberate development efforts and foreign assistance in capital, technology and skill are constantly changing the factor supply situation in the developing countries, so also their dynamic comparative advantage position. Such dynamic changes, of course, cannot proceed without limits, considering especially the limitation of resource endowment. However, outside the fields of very capital-intensive and highly technology-oriented industries, there seems ample room for latecomers to imitate the pioneers or to derive their own course of industrialization from the knowledge and experience of their forerunners. Perhaps in the near future the pattern of trade between developed and developing countries will rapidly shift from an exchange of primary goods with manufactured goods to an exchange of innovation-oriented with imitation-oriented manufactured goods.

The advantages of the development of manufactured exports are several. We have mentioned that it provides the means for obtaining capital goods from abroad and thereby also help to alleviate the balance of payments presence. In addition, without further elaboration, we should mention that it overcomes the limitations of narrow domestic markets. Also, because of international competition, export industries tend to lead in increases in productivity. Even in the same industry, the segment serves export market tends to have a higher productivity than the segment serves domestic market, such as in the textile and a few other industries in Japan before World War I. 2/

1/ It is also worth noting that during this period the region's total exports of crude materials (excluding fuels), oils and fats increased the least and those to the developed areas actually declined by 1.7 per cent. It may be inferred that the slow increase in raw material exports of the developing countries is due more to population increase and industrialization than to the demand deficiency (see Cairncross, op. cit.). This may be to a certain extent true, especially in India. However, it does not follow that total exports will have to be decreased because of industrialization. Mr. A. Maizels, in his statistical findings of about ten developing countries for the period from 1937 up to 1955, concludes "industrialization can just as well promote exports as retard them or, equally, have little or no significant influence on the total export value," (see A. Maizels, Industrial Growth and World Trade, Cambridge, 1962, p. 130). He further notes "much depends on the type of industrialization and the general economic and monetary policy being pursued."

2/ Based on my memory of the findings contained in Elizabeth Schumpeter (ed.), Industrialization of Japan and Manchuria. The book is not readily available at the time of writing.

A similar point was recently stressed by Professor E. A. G. Robinson: "increasing foreign exports are likely to be concentrated in those industries where relative productivity is highest and thus to raise the rate of growth of the national income and the power to accumulate."1/ Furthermore, manufacturing industries in general have higher degrees of backward and forward linkages in the economy than primary production and therefore greater growth potentials.

The development of manufactured exports in developing countries can be facilitated greatly by trade cooperation among themselves (especially coordinated trade liberalization with each other). However, from the standpoint of the capital goods supply, the trade policy of developed countries is particularly important.2/ The GATT Panel of Experts concluded: "We think that there is some substance in the feeling of disquiet among primary producing countries that the present rules and conventions about commercial policies are relatively unfavourable to them."3/ The ECE and ECAFE Surveys4/ also pointed out that developed countries can go a long way in adopting a more liberal trade policy toward developing countries and facilitate or even induce their industrialization and economic development. For instance, as pointed in the ECE Survey, Western European tariffs regimes have one common feature which discourages imports of processed and manufactured goods while encouraging imports of primary produces--"tariffs in primary commodities that do not compete directly with those from domestic farming tend to be low in relation both to processed materials and, in particular, to finished manufactures."5/ The common external tariff of the European Economic Community has a similar structure.6/ In the light of these facts, the GATT Ministerial Meeting declared on December 7, 1961, that "Governments should give special attention to tariff reductions which would be of direct and primary benefit to less-developed countries. In this connection, they should consider the elimination of tariffs on primary products important in the export trade of less-developed countries.

product ?

1/ E. A. G. Robinson, op. cit., p. 7

2/ Needless to say, the developing countries are also very much interested in the reduction of export obstacles to their primary products.

3/ GATT, Trends, op. cit., p. 11

4/ ECA, Survey, 1960, Chapter V; ECAFE Survey, 1961, Part I

5/ ECE, Survey, 1960, Chapter V, p. 33

6/ ECAFE, Survey, 1962, p. 43

They should also consider reducing those tariffs which differentiate disproportionately between processed products and raw materials, bearing in mind that one of the most effective ways in which less-developed countries can expand their employment opportunities and increase their export earnings is through processing the primary products they produce for export." The Ministers also agreed that "in view of the stage of economic development of the less-developed countries, a more flexible attitude should be taken with respect to the degree of reciprocity to be expected from these countries."1/

Some quantitative import restrictions are still being applied in several developed countries. For instance, in its study on Asia's trade with Western Europe, the ECAFE Survey observed: "A more serious obstacle faced by Asian exports of manufactures is quantitative import restrictions applied in Western European countries. Such restrictions, inherited from the ex-OEEC trade arrangements, are generally applied with discrimination against non-ex-OEEC countries and to products such as sewing machines and electric fans which are new export items of some developing countries of the ECAFE region. In view of the recent rapid economic growth and great improvements in the balance-of-payments position in Western European countries, such import restrictions are clearly unnecessary and their abolition is of great interest to the developing countries."2/

Some arguments for granting developing countries more trade concessions than receiving from them by the developed countries are worth considering. First, there exists a fundamental asymmetric trade relation between these two groups of countries. The developed countries buy much more among themselves than from the underdeveloped countries and the underdeveloped countries do just the reverse. This means that a certain amount of exports from the underdeveloped countries have much greater importance for their economies than they have, in the form of imports, for the economies of their developed trade partners. Thus in 1962, for instance, the total exports of the underdeveloped countries to the developed countries were worth about $21 billion, which was about 23 per cent of the world's exports to developed areas, but more than 90 per cent of the total exports of the underdeveloped countries. Had the developed countries bought $2 billion more from the underdeveloped areas in that year, this would have meant only a slightly more than 2 per cent increase in the total imports of the developed countries, but an almost 10 per cent increase in export earnings of the underdeveloped countries. Hence the opening up of markets for underdeveloped countries, even to a small extent, would significantly increase the external purchasing power of the underdeveloped countries.

1/ Special Report of Committee III, adopted on 15 November 1961, GATT, Basic Instruments and Selected Documents, Tenth Supplement, p. 194

2/ ECAFE, op. cit., p. 55

Secondly, the developing countries will continue to provide expanding markets ~~with~~ for imports from developed countries, especially their capital goods. The import policies the developing countries follow have a distinct bias in favour of capital goods that are the main exports of industrial countries to them.

Thirdly, the potential import demand of the developing countries is much more than their actual imports. The gap is not so much a result of protectionism as of the general shortage of foreign exchange resources. Thus, any degree of export expansion permitted would lead almost to the same extent of import increase. This increase would undoubtedly be in the interest of their trade partners and of world trade expansion.

VI

In summing up, international trade not only raises consumption welfare as suggested by the classical theory, but also increases the trading countries' productive capacity, directly through imports of capital and producer's goods and indirectly through dissemination of technical knowledge, transmission of managerial talents, entrepreneurship and labor skill. It also stimulates further development in non-export sectors through general increase of income and inter-industrial demand and supply. However, such stimuli may not spread widely if there were significant import leakages, and if domestic resources were not developed for ready use in production. This is perhaps just the true situation of most underdeveloped primary exporting countries before World War II. Improvement in productivity in the primary export sectors in these countries have been impeded by the availability of cheap surplus labor in the subsistence sector and by the instability of export markets. Moreover, owing to the low income elasticity of demand for foodstuffs and the endless innovation in substituting natural raw materials by man-made materials, the demand prospects of primary exports appear gloomy. The growth power derived from such trade is apparently being weakened.

The deliberate policy of economic development followed by less-developed countries after World War II has the significant effect of rectifying the traditional bias towards exports of primary products. The efforts towards resource development and importation of more capital goods will constantly change the factor supply and dynamic comparative advantage position. A substantial progress has already been made in the field of import substitution, aided by import control policy. However, as the scope of import substitution is being gradually reduced as development reaches more advanced stages, further progress on the foreign trade front points to the need and opportunities of the expansion of manufactured exports.

In view of the gloomy prospects of primary exports and the present small base of manufacturing industry, even an intensive export promotion may still not be sufficient to achieve an export-led take-off in self-sustained growth in most developing countries. For most of them it would be a significant accomplishment already if export expansion can serve as a balancing sector in economic development, following the general economic growth; let

foreign exchange shortage not fall too much out of proportion and become a serious brake of growth. In this connection, a more liberal trade policy of the developed countries towards exports from the developing countries may be as important as regional trade and economic cooperation among the developing countries, for it is from the developed countries that the latter obtain their bulk of capital goods. It goes without saying that an increase in the availability of external capital will greatly ease the shortage of capital and foreign exchange in the developing countries. However, to repay external debts, the question falls back again on export expansion, increases in income and savings, and resource development.

Developing ECAFE Region: Index of 1960 Export Value
by Main Commodity Class and
by Main Direction
(1955 = 100)

SITC Section	Commodity Class	Exports To: World	Exports To: Developed Areas
0 + 1	Food, beverages and tobacco	111.7	107.2
2 + 4	Crude materials (excl. fuels), oils and fats	104.0	98.3
6+7+8	Manufactured goods, machinery & Transport Equipment	140.0	174.3
0 to 9	Total trade	111.5	110.2

Source: ECAFE Survey, 1962, p. 19

World Trade by Major Areas, 1962

A. Value (F.O.B. in billion U.S. dollars)

Exports to / Exports from	World	Area I	Area II	Area III
World	140.6	91.4	29.6	19.6
Area I	94.5	67.4	21.2	5.9
Area II	29.0	20.8	6.3	1.9
Area III	17.1	3.2	2.1	11.8

B. Percentage distribution

Exports to / Exports from	World	Area I	Area II	Area III
World	100 (100)	65	21	14
Area I	100 (67)	71	22	6
Area II	100 (21)	72	22	7
Area III	100 (12)	2	1	97

Source: United Nations, Monthly Bulletin of Statistics, June 1963.

Note: Area I includes United States, Canada; Western Europe; Australia, New Zealand and South Africa; Japan. Area II includes sum of regions other than Areas I and III. Area III includes USSR and other eastern Europe, China (mainland), Mongolia, North Korea and North Viet-Nam.

~~Rec. 9/30/63~~
Speech Aug. 29, 1963

Foreign Trade Problems in Economic Development [1/] Aberdeen, Scotland

by

Shu-Chin Yang

Since the end of World War II, underdeveloped countries, in increasing number, have made decisive efforts to accelerate their economic development. This change has added a new dimension to their foreign trade problems, and currently most of these countries are confronting the problem of a foreign exchange shortage which threatens to check the rate of economic growth. An increasingly large volume has been recently written by economists on the relationship between international trade and economic development. This material has greatly helped us to understand what has happened in the past. But it seems that much thought is still needed on the possible and desirable future course of trade of developing countries. This paper, written on short notice, does not attempt a comprehensive approach; it merely tries to link some main current thoughts in interpreting the past trade trend of underdeveloped countries with their present trade position and problems. It is hoped that the discussion will be of some use in contemplating the prospects of trade and trade policies of developing countries.

1/ A paper read at the 1963 annual meeting of the British Association for the Advancement of Science, Section F (Economics), Aberdeen, Scotland. The paper expresses the personal views of the author, and does not necessarily reflect those of the International Bank for Reconstruction and Development, with which he is presently associated. He is grateful for helpful comments from Mr. Derek T. Healey, his colleague at the Economic Development Institute of the World Bank.

I.

Underdeveloped countries are predominantly primary exporting countries. Their trade pattern, especially before World War I, was clearly an exchange of home-produced food and agricultural and mineral raw materials for imported manufactured goods. Such a trade pattern, usually called the "nineteenth century trade pattern," can be easily explained by the classical or neo-classical theory of comparative advantages based upon differences in resource endowment of trading nations. However, a question arises as to why the advantages so derived from foreign trade have not helped to achieve self-sustained economic growth in these countries.

Apparently the classical theory of international trade as traditionally interpreted cannot answer satisfactorily this question. The classical theory is interested only in explaining in a static sense the gains arising out of foreign trade in terms of welfare. Within its framework of analysis, the production equilibrium position, when a country is opened to foreign trade, moves along a <u>given</u> production possibility curve and settles at a point on the curve. The net effect of such commodity trade is to increase the country's consumption equilibrium position to an indifference curve of a higher order. The <u>given</u> production possibility curve means production is being carried on at a certain given level of technology, with a given amount of always fully utilized resources. The change in production as a result of foreign trade is therefore only a reallocation of resources between the home and export sectors.

While the gains in welfare resulting from international trade are undeniable, gains in production other than a more economical reallocation of given resources should also not be overlooked. Such changes could be the introduction of technical and market innovation, the accumulation of capital, the improvement in the quality of labor, an increase in the employment of labor, an increase in the cultivated area of land, etc. But such changes in the extent of utilization and improvement of human and natural resources are not taken into account in the classical theory. If they were, analytically it would mean changes in the shape and shifting of the position of the production possibility curve itself.

In the historical context of less-developed countries, such basic changes did happen when they were opened to world trade in the eighteenth and nineteenth centuries. Capital, entrepreneurship and techniques were imported from the advanced countries and contributed heavily to the increased production of export commodities. Here is what an eminent economic historian says: "Typically in this case, it is the foreigners who see the possibilities of the expansion of some primary product in a new area. They come in and organize new low-cost production in, say, diamonds, copper, tea and rubber. Usually they provide the capital and the technical skill for the expansion though local peasants may respond to the chances of profit with remarkable increases in output. Foreigners provide the necessary loans to the local governments for railway, road and harbour extensions. The banking and marketing services which develop

are foreign in origin and limit themselves to linking the export economy with the world overseas ... We have seen this type of development in many parts of the world, Africa, India, Latin America and the Far East." 1/

In fact, not all the classical economists have neglected the contribution of international trade to the improvement of productive capacity. Professor Hla Myint found some such dynamic effects are traceable to the writings of Adam Smith and J.S. Mill. 2/ Recently, Professor G. Haberler has spelled out in some detail the somewhat neglected implications of classical trade theory for economic development. He mentioned four important dynamic and indirect benefits that trade bestows on economic development in underdeveloped countries: (1) the provision of material means (capital goods, machinery, and raw and semi-finished materials); (2) the dissemination of technological knowledge and the transmission of managerial talents and entrepreneurship; (3) the international movements of capital; and (4) the anti-monopoly policy in company with free international trade. 3/ However, it is fair to say that, generally,

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1/ K. Berrill, "International Trade and the Rate of Economic Growth," The Economic History Review, Second Series, Vol. XII, No. 3, 1960, p. 355

2/ Hla Myint, "The 'Classical Theory' of International Trade and the Underdeveloped Countries," Economic Journal, June 1958

3/ G. Haberler, International Trade and Economic Development, (Cairo, 1959), pp. 10-11

the static comparative costs doctrine does play a central role in the interpretation of international specialization and trade by the classical school as a whole. The recent rediscovery of some growth elements in it is chiefly a response to a new urge for a more dynamic theory of international trade.

II.

If the traditional pattern of international trade has, in fact, increased both the welfare and productive capacity of the primary exporting countries, why were these countries not led to a state of self-sustained growth? Explanations may be sought from both the demand (and market) side and the supply (and production) side.

First, consider the demand side. Haberler maintains that if international trade enables a country to produce cheaper goods to exchange for what other countries can produce at a lower cost, such an exchange raises the level of income and also promotes economic development. 1/ Presumably this means that an increase in effective demand would lead to an increase in investment and further increase in income. However, in the "nineteenth century" pattern of international trade, a substantial portion of the effective demand generated by foreign trade did not remain home in the primary exporting countries, but leaked abroad. Foreign shareholders received their dividends abroad and foreign managers and labor remitted much of their savings abroad. The savings of foreign corporations were largely also retained in the metropolitan countries, and whenever the accumulated funds were used for replacement or for new investment

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1/ G. Haberler, International Trade and Economic Development, (Cairo, 1959), p. 6

in capital equipment, they were spent abroad, for there was no local capital goods industry to speak of. Such international transactions were facilitated particularly by the maintenance of an exchange standard monetary system which was free from exchange control. The saving leakage was further aggravated by the import leakage, for many kinds of manufacturing industry did not exist locally. Even where there were local goods available, imported goods were often either cheaper or more appealing in quality. In addition to the exchange standard monetary system, the maintenance of a free trade policy -- the absence of tariff and quota -- helped greatly in keeping imported (consumption and investment) goods cheaper. 1/ Owing to these two large leakages, the small local market for domestic products became even smaller. The transmission line from the expansion of the export sector to that of the home sector was therefore substantially narrowed.

On the supply side, a very interesting explanation was offered by Myint. He observes that the international specialization which occurred in the primary exporting countries was not really conducive to cumulative improvements in skills and productivity per man-hour, but rather led to "once-for-all increases in productivity accompanying the transfer of labor from the subsistence economy to the mines and plantations." 2/ This once-for-all improvement was, as argued by Myint, due to the fact that there was neither incentive nor time for introducing new techniques and new equipment after the initial investment in capital equipment and training in labor had been made in plantations and mines. Whenever there

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1/ See Berrill, op. cit., pp. 355-356

2/ Myint, op. cit., p. 320

was a boom in the world market, the enterprises sought further supplies of cheap labor from the subsistence economy or immigration. Moreover, the commodity booms usually came suddenly, were short lived, and allowed no time to introduce and absorb innovation. In the case of traditional crops (e.g., rice, cotton), the expansion in export production was achieved simply by bringing more land under cultivation or by placing more labor on land with the same methods of cultivation. During depression periods, there was neither incentive nor finance for new investment. Thus, once the economy was opened to international trade, further expansion in exports was made only periodically by capital-widening investment rather than capital-deepening investment, and expansion was generally not accompanied by continuous innovation after the initial increase of productivity. The source of growth power was exhausted rather quickly.

Myint's theory, however, explains only one aspect of the whole story, i.e., why productivity in the export sector itself has not improved continuously. It does not explain why the initial increase in productivity and output in the export sector has not spread to the home sector of the economy. Such spread could have been made possible by an overall increase in national income(which did, of course, take place) or inter-industry demand. The inefficacy of the overall increase in income to increase home production has already been explained by the saving and import leakages abroad. More specific reasons perhaps could be sought in the inter-industry relation aspect of production.

An industry which produces a certain commodity has both backward and forward links with other industries in the whole production structure of an economy. Backward linkage means the requirements of input-provision (raw materials, semi-finished goods, etc.) from other branches

of production to be used in the production of the industry in question, i.e., the requirements of coal and transport service in the production of steel. Forward linkage means the supply of output of the industry in question for the utilization of other branches of production. The backward and forward linkages represent a kind of inter-industry demand and supply -- a network of input-output relation. The higher the backward or forward linkages of a new industry, the more the spread of its development-inducing effect in the domestic economy. In fact, unless a country is large in size and diversified in resource endowment, such linkages will be to a considerable extent transmitted abroad through foreign trade. The extent of backward and forward linkages depends on the commodity produced. Primary products have very low backward linkages, but because they are subject to a number of stages of further processing and manufacturing, their forward linkage is high.

Most of our less-developed countries are not very large in size, and the known resources and production pattern (especially after opening to international trade) are skewed. Outside the subsistence sector, production is highly concentrated on a few primary export commodities. According to the statistical study of Chenery and Watanabe, the average degree of backward linkage (inside the economy) in Italy, Japan and the United States, defined as the ratio of inter-industry purchases to total production, is as low as 15 per cent in petroleum and natural gas, 17 per cent in non-metallic minerals, 21 per cent in metal mining, 24 per cent in fishing and 31 per cent in agriculture and forestry. This compares with the corresponding ratio of 50 to 90 per cent for most "intermediate" and

"final" manufacture. 1/ The backward linkage of these lines of primary production in our less-developed countries would be even lower than those given above, considering that they have to import many producer's goods needed in production. Primary production generally has a very high degree of forward linkage. In most fields of primary production in Italy, Japan and the United States, it is higher than 50 per cent. This is because there are such intermediate manufacturing industries as petroleum refinery, petro-chemicals, steel, and engineering, to make use of the raw materials. But in less-developed countries, such intermediate manufactures are almost non-existent. The high forward linkage, which involves high growth potential, is exported rather than retained in the home sectors of the economies.

Another limitation of the growth spread effect of international trade which is often overlooked is the cost of transformation from primary resources to readily available factors of production, or effective supply. 2/ There is abundant cheap labor available in many over-populated

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1/ Quoted by A.O. Hirschman in his The Strategy of Economic Development, (Yale, 1958), pp. 106-107

2/ Even in the United Kingdom, the growth effect of foreign trade spread only gradually from the localized centers in the North and the Midlands to wider areas. "The second possible channel of causation may be discovered in the establishment of enclaves of higher industrial efficiency, introduced first through foreign trade, which have spread their infection progressively over wider areas until a whole nation is carried progressively towards an accelerated growth. Whatever may have happened in the last half of the eighteenth century in the United Kingdom quite certainly did not happen uniformly over the whole of the area that then composed the United Kingdom. Ireland was almost wholly left out and has remained relatively underdeveloped in most of the senses in which one uses that word today. Northern Scotland was equally left out. More important, the initial growth was very largely concentrated in the North and in the Midlands. ... It spread only slowly to the South, and the South has had most of its industrial revolution within my own lifetime and memory. The initial "take-off" was a local phenomenon which only progressively embraced and carried forward the whole country." E.A.G . Robinson, "Foreign Trade in a Developing Economy," a paper contributed to the International Economic Association Round Table Conference in Gamagori, Japan, 1960; p. 8.

areas of the underdeveloped world. But to make use of such labor in the non-subsistence sector involves investment in moving the labor to certain places where new industries are located and in giving them necessary skill training. It is only after going through such "refining" process that cheaper labor could become available immediately to industries. Similarly, mineral resources may exist in a poor country, but could not be utilized because of lack of access by mass transportation means. Land may be fertile, but only usable after reclamation. It is only after such "resource development" investment is made that these "primary" resources become real factors of production and begin to furnish a flow of services for use in the production process.[1/] Thus, even if there exist possibilities of forward linkage in the home sector of the economy, it may not become effective because of lack of effective supply of required factors of production. Foreign private businessmen could be least interested in this tremendous undertaking of resource development, not only because the products are not for export to the world market (the domestic markets are small), but also because these products would be in competition with similar imports which they supply. Local private entrepreneurs do not have the ability to develop resources in view of the enormous technical knowledge and large amount of capital needed.

1/ One of the drawbacks of the classical theory is the lack of clear distinction between resources and factors of production. See Romney Robinson, "Factor Proportions and Comparative Advantage," Quarterly Journal of Economics, August 1956, pp. 346-350.

It cannot be denied that international trade has stimulated the creation of additional or new factor supplies out of God-given endowment of resources in less-developed countries, but there still seems large room for further development in those home sectors which have not yet been touched by traditional international trade. The development of those sectors need not reduce the existing level of international trade; it represents a new effort. After all, one perhaps cannot expect international trade to be the sole "engine of growth" in all cases.

The foregoing analysis is subject to qualifications. Historically speaking, the traditional pattern of trade, accompanied by a large international flow of capital, did help greatly the growth of the countries of recent settlements in the temperate latitudes outside Europe, especially the United States, Canada, Argentina and Australia. As pointed out by the late Professor Nurkse, international investments made by Britain, the major capital exporting country in the nineteenth century, flowed mostly to these countries. The huge capital inflow was coupled with a large number of immigrants from Europe who carried technical knowledge and skill with them. Moreover, these areas were sparsely populated and growth along familiar, western lines was exceptionally favorable. In these cases, international trade succeeded in fermenting growth. But, again as noted by Nurkse, in the nineteenth century the needy countries with "teeming millions" which also played their part in the traditional pattern of trade were indeed neglected by large international investment. 1/

1/ Ragnar Nurkse, Equilibrium and Growth in the World Economy, edited by G. Haberler and R.M. Stern, p. 141

The traditional pattern of international trade evidently has not spread the power of growth sufficiently to these countries. The pattern, apparently, was too greatly inclined toward imports in connection with both overall and inter-industry demand. Nor was the traditional pattern of trade a stimulant to domestic resource development. The economies of these countries have to be further developed internally, whether in connection with foreign trade or not. They have to be made more receptive to technical progress and absorptive of capital investment.

III.

What are the recent trends in the international trade of the less-developed countries? It would appear that their export performance has been generally discouraging. According to United Nations statistics, during 1959-61 the level of export value of the world's underdeveloped areas was four-and-one-half times the prewar (1938) level, while that of the developed areas was five-and-one-half times.[1/] The level of export value of the non-petroleum exporting countries is lower than the average, since the export increase of underdeveloped countries as a whole was to a large extent accounted for by the extraordinary export increase - seven times greater in 1955 than in 1937-38[2/] - of countries exporting mainly petroleum. The south and southeast Asian countries, which export largely foodstuffs and agricultural raw materials, are doing particularly badly. In 1959-61, the total export value of this area was less than three times the prewar level.[3/]

1/ United Nations, Economic Commission for Asia and the Far East, Economic Survey of Asia and the Far East, (hereafter referred to as ECAFE Survey) 1962, pp. 18-19

2/ General Agreement on Tariffs and Trade, Trends in International Trade, A Report by a Panel of Experts, (G. Haberler, Chairman), (Geneva, 1958;) p.23

3/ ECAFE Survey, 1962, pp. 18-19

In recent years, the export trade of the less developed countries has not fared at all well in comparison with the world trade in general and the trade of the industrially advanced countries in particular. This is evident from the data on export volume, as well as from the data on export prices or total export value as revealed by the United Nations World Economic Survey, 1962.

Table 1.

Comparison of Trade Performance in Developed and Developing Countries, a/

1950 - 1960

	Developed Countries	Developing Countries
Rate of Growth of Trade Volume: (% per annum)		
Exports	6.9	3.6
Imports	6.9	4.6
Percentage Increase in Unit Value: (1960 over 1950)		
Exports	17.5	1.0
Imports	11.3	10.2
Shares in World Export Value:		
1950	59.8	30.0
1960	66.0	20.4

Source: United Nations, World Economic Survey, 1962, Part I, pp. 1-3.

a/ For countries included in the respective groups, see note to Table 3.

For most primary exporting countries, exports are the major dynamic factor in determining the level of general economic activity. When exports increase, the national income, investment, consumption, and government revenue all increase. Increased export earnings also provide a larger amount of foreign exchange to finance more imports to meet increased consumption and investment. Although in the larger countries such as India, and semi-industrialized countries such as Mexico, domestic investment is as important as exports or even more important than exports, in most less developed countries exports are the most important active factor in generating economic activity. The slow growth of their exports, if not accompanied by the development of the home sector, would mean a slow rate of economic growth in general. In the industrially advanced countries, while their exports have increased faster than those of the underdeveloped areas as a whole, their production has generally increased even faster. Their growth rate tends to be higher than that of underdeveloped countries, in view of the importance of exports as a determinant of growth in the latter. If this trend of disparity in export growth continues, and if development on the home front is not vigorously pursued in the underdeveloped countries, then the gap of income levels between developed and underdeveloped countries will tend to be widened.

Numerous inquiries have recently been made, particularly by the United Nations and G.A.T.T., as to the causes of the slow growth of primary exports. Most of these inquiries emphasize the deficiency in world demand as a major cause. The basic causes of this demand deficiency may be explained in terms of income and substitution effects. The income effect, relating to foodstuffs, is an application of Engel's law on the international plane.

The higher the income level in the importing countries, the less proportionally the people there will spend on imported foodstuffs. In other words, the income elasticity of demand for food items is believed to be generally smaller than the income elasticity of demand for non-food commodities, particularly in the richer countries. Coffee may serve as an example as a major commodity in the foodstuff category, bearing a low income elasticity of demand.[1/]

The substitution effect works mainly on raw materials. It is well-known that many synthetic products innovated in the industrialized countries have increasingly replaced natural products exported chiefly from underdeveloped countries. There are synthetic rubber vs. natural rubber, chemical fibers vs. silk and cotton, plastics vs. wood and leather, paper bags vs. jute bags, detergents vs. vegetable oil fats for making soap, to mention just a few. A most recent example is a new development in making synthetic rubber. For some time, the prospects of natural rubber had been considered as fortunately good, for in a large segment of rubber use, i.e., tire-making, synthetic rubber could not match natural rubber. However, very recently it is reported that a natural-like synthetic rubber closely resembling tree rubber is being successfully produced and is being increasingly used in making rubber tires. This development has recently helped to drive the natural rubber price down.[2/] The development of

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1/ Cocoa, on the contrary, in the form of chocolate has a high income elasticity of demand.

2/ "Expanding synthetic capacity, particularly for types closely resembling tree rubber, prod prices downward. Rubber manufacturers chewed up 234,696 tons of natural rubber in the first half of 1963, about 1% less than a year earlier. But use of the new stereo, or natural-like synthetics, more than doubled to 53,000; overall synthetic consumption climbed 6% to 631,566." The Wall Street Journal, August 13, 1963.

production in the industrial countries of manufactured raw materials has resulted in a steady decline of the share of natural raw materials in the total material input in the manufacturing industry of the industrial countries. A G.A.T.T. study shows that, while such share for natural raw materials was 97 per cent in 1938, it fell to 85 per cent in 1955. 1/

Another aspect of the substitution effect is the development of new manufacturing techniques which resulted in the use of less raw material per unit of output. This may be regarded as a direct substitution of technology for raw materials inputs. One notable example is the development of the electrolytic process of coating tin on steel sheet for making cans, which resulted in the saving of one-half or more of the tin. 2/ The said G.A.T.T. study shows that since prewar there has been a trend of continuous decline in the average requirements for raw materials and fuel per unit of manufactured production in the industrial countries. The percentage of the consumption of both natural and manufactured raw materials and fuels to the gross value of manufacturing production in the industrial countries being 25.8 in 1938 and declining steadily to 20.7 in 1955.

One may argue that technical innovation in inducing synthetic substitutes and new processes has been stimulated by periodically insufficient supply and high prices of raw materials - an argument for supply deficiency. Professor A.K. Cairncross points out that the failure of industrial countries to expand their imports of primary products between

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1/ GATT, International Trade, 1955. (Geneva, 1956) p. 12, Table 6.

2/ I am indebted to my colleague, Mr. Samuel Lipkowitz at the World Bank, for supplying this information.

1937 and 1957 in proportion to their economic growth must have been due, in part at least, to the price factor. He further argues that the sharper rise in prices of exports from the non-industrial countries than the rise in prices obtained by industrial countries for their primary exports during this period "reflected the acute pressure of supplies of primary produce in a fully-employed economy - a pressure that continued because of the low elasticity of supply of the produce." He also points out that in post-war years governments and marketing boards in these exporting countries "have been more concerned to skim off finance for other forms of development than to let high prices do the job of increasing production for such primary export commodities." He further argues: "Here, surely, is a powerful reason for industrialized countries to develop domestic supplies of primary produce, to economize in the use of imported materials, and to accelerate the introduction of substitutes."[1/] However, it seems rather doubtful whether the increases of export taxes, the application of state trading and multiple exchange rates during the Korean war boom had really siphoned off entirely the increases in world market prices of primary exports from the underdeveloped countries. Closer to the actual fact, at least in south and southeast Asia countries, is the probability that a part, sometimes perhaps a substantial part, of the "windfall" gains (with the possible single exception of Burmese rice) did go to the producers - gains which should be large enough to provide incentives for increasing production. The fiscal and monetary measures aimed chiefly at

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1/ A.K. Cairncross, "International Trade and Economic Development," Kyklos, Vol. xiii, Fasc. 4, 1960

reducing the inflationary impact arising out of an export boom were generated from abroad.[1] The impediments to a quick increase in supply of primary exports must be sought elsewhere.

One factor is that for agricultural products there is a certain time period required from planting to maturity. For tree crops this period can be quite long - e.g., seven years for rubber trees. If the long-term prospects of the demand for and the price of the primary produce concerned are not very promising, then the incentive in the private sector for investing more in this line of production in response to a short-term increase in the price tends to be weak. In Malaya, it is the federal government which took the initiative and made the financial and other arrangements to replant high-yielding rubber trees. (In fact, a large part of the fund comes from rubber export taxes.) The effect on supply of price instability introduces again the demand factor from the backdoor.

Natural limitations in production may be overcome by scientific and technical innovations accompanied by capital investment. This is the way the industrial countries react to substantial changes in demand and supply conditions. Thus, Professor J.R.T. Hughes, from much historical evidence, concludes: "Where the reaction to foreign trade gave rise to supply shortages, the western countries responded by new factor combinations, the 'productivity' derived from trade ..."[2] For the underdeveloped

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1/ ECAFE Survey, 1957, Chapters 5 and 6, "Export Instability of Primary Producing Countries."

2/ J.R.T. Hughes, "Foreign Trade and Balanced Growth: the Historical Framework," American Economic Review, May 1959, pp. 336-337

countries, he suggests a study of relative impediments to factor mobility and policies (economic, social and cultural) to remove these impediments. The question therefore falls back on the need of resource development, or a removal of general supply impediments to all possible lines of production in the developing countries, not just the production of traditional primary exports. It is perhaps in this sense that the supply deficiency argument has its true meaning.

IV.

Realizing the lag of traditional primary exports behind world trade, many underdeveloped countries have, during the post-war period, one after another made decisive efforts to develop their economies on all fronts. A common feature is to emphasize import substitution. This is partly a long-run policy of industrialization and partly a result of the measures taken to safeguard the balance of payments position. Import substitution is perhaps one of the easiest tasks to start with in economic development, for here the domestic market demand exists; what is needed is to restrict imports. Import restriction not only serves to retain a large portion of demand at home, but also prevents further increases in domestic demand (resulting from rises in population and per capita income) from leaking too greatly abroad. Here ends the free trade policy and the hundred percent exchange standard monetary system.

Import control has not only helped industrialization and economic development on the demand side, but also on the supply side. For,by restricting imports of non-essential consumer goods, it increases the supply of foreign exchange available for capital goods and industrial raw materials. A liberal import policy applies to capital goods manifested not only in foreign exchange and import quota allocation, but also in low

tariffs or even tariff exemptions. In the new tariff schedules of many Asian developing countries, for instance, "essential food and capital goods are particularly favoured as against manufactured goods which are deemed luxurious or which compete with locally manufactured goods."[1/]

Considering the limitation of general foreign exchange shortage, this policy has contributed greatly to capital formation in underdeveloped countries. Thus, for about twenty Asian developing countries as a whole, while total imports increased by only 11 per cent in the nineteen fifties, imports of capital goods rose by 65 per cent and imports of materials for capital goods by 45 per cent. As a result, in 1958-60, imports of capital goods and materials for capital goods accounted for two-fifths of the area's total imports.[2/]

The considerable increase in capital goods supply tends to change the factor supplies situation and therefore the base of comparative advantage in future international trade.[3/]

Import substitution, indeed, plays a major role in industrialization. In his cross-section correlation analysis of fifty-one developed and underdeveloped countries, Professor H.B. Chenery found that the increased share of domestic production in total supply, defined here as import substitution, is more important than the pure demand effects, since it

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1/ ECAFE, Survey, 1962, p. 89

2/ Idib., pp. 86-88

3/ The difference in growth potentials between capital goods and consumption goods imports should form an integral part of any dynamic theory of international trade and trade policy.

accounts for 50 per cent of industrialization."[1] Increase in final demand resulting from income growth, according to his estimate, accounts for only 22 per cent. The United Nations' World Economic Survey in its study on post-war industrialization for economic development in the underdeveloped countries also concludes: "Of more frequent importance has been the extent to which the expansion of domestic manufacturing output has resulted in the replacement of imported goods by domestic products."[2]

However, import substitution cannot proceed forever without limits. Abuses in protection will result in inefficiency and high cost. When import substitution proceeds from those most suitable lines of production (e.g., cotton textiles), to less and less suitable fields, profitable opportunities tend to be gradually exhausted. Also, the domestic market even with protection may still be too small to permit many industries (e.g., chemical fertilizer, newsprint, etc.) to operate on an economically large scale. This is particularly true with smaller underdeveloped countries where, in addition to the low per capita income, the population is small.

The U.N. Survey found that "the role of import substitution tends to diminish quite sharply as countries reach more advanced stages of industrial development . . . In such countries as Brazil and Mexico, for example, the effect of the growth of domestic production in replacing imports has been relatively moderate in recent years. This, it should

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1/ H.B. Chenery, "Patterns of Industrial Growth," American Economic Review, September 1960, p. 641

2/ United Nations, World Economic Survey, 1961, p. 40

be noted, does not mean that such import substitution as has taken place has failed to result in significant foreign exchange saving, but it does suggest that the scope which import substitution offers as a means of rapidly augmenting the supply of foreign exchange available for imports of capital goods contracts markedly as countries reach more advanced stages of industrialization."[1/]

To overcome the narrowness of the domestic market, it has been suggested that the underdeveloped countries should form regional custom unions or some other kind of regional trade arrangement in order to extend import substitution to a larger region.[2/] While this proposal, if it works, may help substantially to solve the market problem, it seems still insufficient, for one has to remember that all the underdeveloped countries rely heavily on the developed countries for the supply of producer's goods, especially those types of producer's goods which require advanced techniques in their production and involve continuous technical innovations. Though some less developed countries are now developing steel and chemical industries, they may still have to import large quantities of machinery and chemical products from the industrial countries for many years to come. To obtain these important producer's goods, the underdeveloped countries have to pay the developed countries with exports, unless the developed countries increase their credit and capital fund supply.

1/ United Nations, World Economic Survey, 1961, p. 42

2/ For example, Nurkse, op. cit., pp. 318-319

If the future prospects of primary exports are not promising, if the scope of national import substitution tends to be gradually narrowed, and if regional import substitution cannot solve the problem of capital goods supply, then the developing countries will have to seek alternative means to obtain more foreign exchange for meeting the enlarged requirement of capital formation. One alternative is to develop a domestic capital goods industry. But this probably cannot be done for most developing countries because of the lack of required resources (e.g., iron ore, coking coal for iron and steel industry), technical knowledge and skill, and a sufficiently large home market. For some countries such as India and for some simple capital goods there may exist possibilities, but for most developing countries the scope of these possibilities appears to be small. An alternative is to increase the flow of external capital. This will provide finance for capital formation and at the same time ease the tight balance of payments position. However, international loans (bilateral loans are already increasingly replacing grants) have to be serviced and amortized or, in other words, eventually be paid back by exports. Or, to put it in a more positive way, a sustained increase in export earnings will enable a country to service a larger flow of foreign borrowing.

There is therefore no escape from the basic solution of export expansion. And, since primary exports are generally not very promising, the solution is the expansion of export of manufactures.

V.

It is indeed a formidable task for latecomers in industrialization to break into world markets of manufactured goods. However, there are actually a few successful cases, such as Puerto Rico, Hong Kong, Israel and Jamaica, perhaps very soon to be followed by China: Taiwan and

Singapore (or Malaysia), not to mention the classical example of Japan.[1] In view of the wide differences in resource pattern and stage of development, such export-led growth may not be possible for many developing countries to follow. It is interesting, nevertheless, to note that manufactured exports, although they still occupy a rather small portion of the total exports of the "developing ECAFE region," (22 per cent in 1960), had a rate of increase during the fifties higher than that of any other major commodity group. During 1955-60, while total exports of the region increased by 11.5 per cent, manufactured exports increased by 40 per cent; the increase of the latter to the developed areas is even higher -- a phenomenal 74 per cent.[2] (See Table 2)

1/ Cf. Joseph E. Haring, "Export Industrialism and Economic Growth; A Dynamic Model," The Western Economic Journal, Volume I, No. 2, Spring 1963, and "Dynamic Trade Theory and Growth in Poor Countries," Kyklos, Vol. XVI - 1963 - Fasc. 3

2/ It is also worth noting that during this period the region's total exports of crude materials (excluding fuels), oils and fats increased the least and that those to the developed areas actually declined by 1.7 per cent. It may be argued that the slow increase in raw material exports of the developing countries is due more to population increase and industrialization than to the demand deficiency (see Cairncross, op. cit.) This may to a certain extent be true, especially in India. However, it does not follow that total exports will have to be decreased because of industrialization. Mr. A. Maizels, in his statistical findings of eleven semi-industrial countries for the period from 1937 to 1955, concludes, "Industrialization can just as well promote exports as retard them or, equally, have little or no significant influence on the total export value," (see A. Maizels, Industrial Growth and World Trade, Cambridge, 1962, p. 130). He further notes, "Much depends on the type of industrialization and the general economic and monetary policy being pursued."

Table 2.

Developing ECAFE Region: Index of 1960 Export Value by Main Commodity Class and by Main Direction (1955 = 100)

SITC Section	Commodity Class	Exports To: World	Exports To: Developed Areas
0 + 1	Food, beverage and tobacco	111.7	107.2
2 + 4	Crude materials (excl. fuels), oils and fats	104.0	98.3
6 + 7 + 8	Manufactured goods, machinery & Transport Equipment	140.0	174.3
0 to 9	Total trade	111.5	110.2

Source: ECAFE Survey, 1962, p. 19

The recent divergent movements of primary and manufactured exports of the developing ECAFE region may be explained by the difference in the income elasticity of demand for them. If this is so, the high income elasticity of demand alone can justify the development of exports of manufactures. Again, one should not think of classical, static comparative advantages and the traditional pattern of trade as unchangeable. Indeed, the deliberate development efforts and foreign assistance in capital, technology and skill are constantly changing the factor supply situation in the developing countries, as well as their dynamic comparative advantage position. Such dynamic changes, of course, cannot proceed without limits, considering especially the limitation of resource endowment. However, outside the fields of very capital-intensive and highly technology-oriented industries, there seems ample room for latecomers to imitate the pioneers or to derive their own course of industrialization from the knowledge and experience of their

forerunners. Perhaps in the near future the pattern of trade between developed and developing countries will rapidly shift from an exchange of primary goods for manufactured goods to an exchange of innovation-oriented for imitation-oriented manufactured goods.

The advantages of the development of manufactured exports are several. We have mentioned that the development helps to alleviate the balance of payments pressure. In addition, without further elaboration, we should mention that it overcomes the limitations of narrow domestic markets. Moreover, because of international competition, export industries tend to lead in increases in productivity. Even in the same industry, the segment serving the export market has a higher propensity to standardize products and to introduce new techniques in production and marketing than the segment serving the domestic market, as, for example, in the textile industry in Japan before World War II.[1/] A similar point was recently stressed by Professor E.A.G. Robinson: "Increasing foreign exports are likely to be concentrated in those industries where relative productivity is highest and thus raise the rate of growth of the national income and the power to accumulate."[2/] Furthermore, manufacturing industries in general have higher degrees of backward and forward linkages in the economy than primary production industries and therefore greater growth potentials.

1/ See E.B . Schumpeter (ed.), The Industrialization of Japan and Manchukuo, 1930-1940, Part II, "Japanese Industry: Its Organization and Development to 1937" (by G.C. Allen), pp. 517-526 and pp. 579-581 (MacMillan, 1940); and W.W. Lockwood, The Economic Development of Japan (Princeton, 1954), pp. 187-189 and pp. 369-378.

2/ E.A.G. Robinson, op. cit., p. 7

The development of manufactured exports in developing countries can be facilitated greatly by trade cooperation among themselves (especially coordinated trade liberalization with each other). However, from the standpoint of the capital goods supply, the trade policy of developed countries is particularly important.[1/] The GATT Panel of Experts concluded: "We think that there is some substance in the feeling of disquiet among primary producing countries that the present rules and conventions about commercial policies are relatively unfavourable to them."[2/] The various United Nations Surveys[3/] also pointed out that developed countries can go a long way in adopting a more liberal trade policy toward developing countries and facilitate or even induce their industrialization and economic development. For instance, the World Economic Survey observed, "All the industrial countries maintain a clear progression in their tariff rates according to the degree of processing. In any given commodity group, the tariff rates increase continuously with the degree of fabrication, so that the raw materials bear the lowest duties and the finished products into which they enter the highest."[4/] Being aware of these facts, the GATT Ministerial Meeting declared on December 7, 1961, that "Governments should give special attention to tariff reductions which would be of direct and primary benefit to less-developed countries. In this connection, they should consider the elimination of tariffs on primary products important in the export trade of less-

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1/ Needless to say, the developing countries are also very much interested in the reduction of export obstacles to their primary products.

2/ GATT, Trends, op. cit., p. 11

3/ United Nations, World Economic Survey, 1962 - Part I
ECE Survey 1960, Chapter V; ECAFE Survey, 1961, Part 1

4/ World Economic Survey, 1962, p. 67

developed countries. "They should also consider reducing those tariffs which differentiate disproportionately between processed products and raw materials, bearing in mind that one of the most effective ways in which less-developed countries can expand their employment opportunities and increase their export earnings is through processing the primary products they produce for export." The Ministers also agreed that "in view of the stage of economic development of the less-developed countries, a more flexible attitude should be taken with respect to the degree of reciprocity to be expected from these countries." 1/

Some quantitative import restrictions are still being applied in several developed countries. The World Economic Survey also observed that, "in France and the Federal Republic of Germany, among the EEC countries, and in Austria and Denmark, among the EFTA countries, quota restrictions are . . . still maintained on a number of manufactured goods in which the developing countries are interested." 2/ These include jute manufactures, coir manufactures, finished leather, leather footwear, cement, bicycles, sewing machines, electric motors, internal combustion engines etc. In view of the recent rapid economic growth and great improvements in the balance-of-payments position in Western European countries, such import restrictions are clearly unnecessary and their abolition is of great interest to the developing countries. Several developing countries

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1/ Special Report of Committee III, adopted on 15 November 1961, GATT, Basic Instruments and Selected Documents, Tenth Supplement, p. 194

2/ World Economic Survey, 1962, p. 68

(especially India, Pakistan and Hong Kong) have exported substantial quantities of cotton textiles at competitive costs and prices, through the combination of cheap labour and modern machinery. However, exports of textiles are now subject to the regulations of an international long-term agreement under the auspices of the GATT, under which a country could, after consultation with the exporting countries, ask the latter to impose quota restrictions on their exports on grounds of "market disruption."

Some arguments for granting developing countries more trade concessions than those received from them by the developed countries are worth considering. First, there exists a fundamental asymmetric trade relation between these two groups of countries. The developed countries buy much more among themselves than from the underdeveloped countries, and the underdeveloped countries do just the reverse. This means that a certain amount of exports from the underdeveloped countries have much greater importance for their economies than they have, in the form of imports, for the economies of their developed trade partners. Thus in 1962, for instance, the total exports of the underdeveloped countries to the developed countries were worth about $21 billion, which was about 23 per cent of the world's exports to developed areas, but more than 90 per cent of the total exports of the underdeveloped countries. Had the developed countries bought $2 billion more from the underdeveloped areas in that year, this would have meant only a slightly more than 2 per cent increase in the total imports of the developed countries, but an almost 10 per cent increase in export earnings of the underdeveloped countries. Hence the opening up of markets for underdeveloped countries, even to a small extent, would significantly increase the external purchasing power of the underdeveloped countries. (See Table 3)

Table 3.

World Trade by Major Areas, 1962

A. Value (F.O.B. in billion U.S. dollars)

Exports to / Exports from	World	Area I	Area II	Area III
World	140.6	91.4	29.6	19.6
Area I	94.5	67.4	21.2	5.9
Area II	29.0	20.8	6.3	1.9
Area III	17.1	3.2	2.1	11.8

B. Percentage Distribution

Exports to / Exports from	World	Area I	Area II	Area III
World	100 (100)	65	21	14
Area I	100 (67)	71	22	6
Area II	100 (21)	72	22	7
Area III	100 (12)	2	1	97

Source: United Nations, Monthly Bulletin of Statistics, June 1963.

Note: Area I includes United States, Canada; Western Europe; Australia, New Zealand and South Africa; Japan.
Area II includes sum of regions other than Areas I and III.
Area III includes USSR and other eastern European countries, China (mainland), Mongolia, North Korea and North Viet-Nam.

Secondly, the developing countries will continue to provide expanding markets for imports from developed countries, especially for their capital goods. The import policies which the developing countries follow have a distinct bias in favour of capital goods that are the main exports to them from the industrial countries.

Thirdly, the potential import demand of the developing countries is much more than their actual imports. The gap is not so much a result of protectionism as of the general shortage of foreign exchange resources. Thus, any degree of export expansion permitted would lead almost to the same degree of import increase. This increase would undoubtedly be in the interest of their trade partners and of world trade expansion.

VI.

In summing up, international trade not only raises consumption welfare, as suggested by the classical theory, but also increases the trading countries' productive capacity, directly through imports of capital and producer's goods and indirectly through dissemination of technical knowledge, transmission of managerial talents, entrepreneurship and labor skill. It also stimulates further development in non-export sectors through general increase of income and inter-industrial demand and supply. However, such stimuli may not spread widely if there are significant import leakages, and if domestic resources are not developed for ready use in production. This was perhaps the actual situation of most underdeveloped primary exporting countries before World War II. Continuous improvement in productivity in the primary export sectors in these countries has been impeded by the availability of cheap surplus labor and by the instability of export markets.

Moreover, owing to the low income elasticity of demand for foodstuffs and the endless innovation in substituting man-made materials for natural raw materials, the demand for primary exports will doubtless diminish. The growth power derived from such trade is consequently being weakened.

The deliberate policy of economic development followed by less developed countries after World War II has the significant effect of rectifying the traditional bias toward exports of primary products. The efforts toward resource development and importation of more capital goods will constantly change the factor supply and the dynamic comparative advantage position. Substantial progress has already been made in the field of import substitution, aided by import control policy. However, since the scope of import substitution is being gradually reduced as development reaches more advanced stages, further progress on the foreign trade front points to the need for the expansion of manufactured exports and the opportunities inherent therein.

In view of the gloomy prospects of primary exports and the present small base of manufacturing industry, even intensive export promotion may still not be sufficient to achieve an export-led take-off in self-sustained growth in most developing countries. For most of them, it will already have proved to be a significant accomplishment if export expansion can accompany the general economic growth and thereby prevent the foreign exchange shortage from seriously threatening growth. In this connection, a more liberal trade policy of the developed countries

toward exports from the developing countries may be as important as regional trade and economic cooperation among the developing countries, for it is from the developed countries that the developing countries obtain the bulk of their capital goods. It goes without saying that an increase in the availability of external capital will greatly ease the shortage of capital and foreign exchange in the developing countries. However, to repay external debts, we shall have to fall back again on export expansion, increases in income and savings, and resource development.

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ECONOMIC DEVELOPMENT INSTITUTE

9th General Course

1963-64

9/4

Seminar 9: International Trade and Finance

Session 4: Thursday, February 13

Topic: International Trade and Economic Development

Reading: Ragnar Nurkse, Patterns of Trade and Development (1961, Oxford University Press), pp. 13-50. (Appendix, pp. 53-62, optional)

Speaker: Mr. Yang

Outline: S. C. Yang, "Foreign Trade Problems in Economic Development," a paper read at the British Association meeting. (attached)

Additonal Reading:

Charles P. Kindleberger, Foreign Trade and the National Economy (Yale, 1962), chapter 12, pp. 195-211

Hollis B. Chenery, "Comparative Advantage and Development Policy," American Economic Review, March 1961, pp. 18-51

Foreign Trade Problems in Economic Development [1]

by

Shu-Chin Yang

Since the end of World War II, underdeveloped countries, in increasing number, have made decisive efforts to accelerate their economic development. This change has added a new dimension to their foreign trade problems, and currently most of these countries are confronting the problem of a foreign exchange shortage which threatens to check the rate of economic growth. Important as the problem is, much thought is needed on the possible and desirable future course of trade of developing countries. This paper, while it does not attempt a comprehensive approach, tries to link some main current thoughts in interpreting the past trade trend of underdeveloped countries with their present trade position and problems. It is hoped that the discussion in this way will be useful in contemplating the prospects of trade and trade policies of developing countries.

I

Underdeveloped countries are predominantly primary exporters. Their trade pattern, especially before World War I, was clearly an exchange of home-produced food and agricultural and mineral raw materials for imported manufactured goods. Such a trade pattern, usually called the "nineteenth century trade pattern," can be easily explained by the classical or neoclassical theory of comparative advantages based upon differences in

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1/ A paper read at the 1963 annual meeting of the British Association for the Advancement of Science, Section F (Economics), Aberdeen, Scotland. The paper expresses the personal views of the author, and does not necessarily reflect those of the International Bank for Reconstruction and Development, with which he is presently associated. He is grateful for helpful comments from Mr. Derek T. Healey of the World Bank.

resource endowment of trading nations. However, a question arises as to why the advantages so derived from foreign trade have not helped to achieve self-sustained economic growth in these countries.

Apparently the classical theory of international trade as traditionally interpreted cannot answer satisfactorily this question. The classical theory is interested only in explaining in a static sense the gains arising out of foreign trade in terms of welfare. Within its framework of analysis, the production equilibrium position, when a country is opened to foreign trade, moves along a given production possibility curve and settles at a point on the curve. The net effect of such commodity trade is to increase the country's consumption equilibrium position to an indifference curve of a higher order. The given production possibility curve means production is being carried on at a certain given level of technology, with a given amount of always fully utilized resources. The change in production as a result of foreign trade is therefore only a reallocation of resources between the home and export sectors.

While the gains in welfare resulting from international trade are undeniable, gains in production other than a more economical reallocation of given resources should also not be overlooked. Such changes could be the introduction of technical and market innovation, the accumulation of capital, the improvement in the quality of labor, an increase in the employment of labor, an increase in the cultivated area of land, etc. But such changes in the extent of utilization and improvement of human and natural resources are not taken into account in the classical theory. If they were, analytically it would mean changes in the shape and shifting of the position of the production possibility curve itself.

In the historical context of less-developed countries, such basic changes did happen when they were opened to world trade in the eighteenth

and nineteenth centuries. Capital, entrepreneurship and techniques were imported from the advanced countries and contributed heavily to the increased production of export commodities. Here is what an eminent economic historian says: "Typically in this case, it is the foreigners who see the possibilities of the expansion of some primary product in a new area. They come in and organize new low-cost production in, say, diamonds, copper, tea and rubber. Usually they provide the capital and the technical skill for the expansion though local peasants may respond to the chances of profit with remarkable increases in output. Foreigners provide the necessary loans to the local governments for railway, road and harbor extensions. The banking and marketing services which develop are foreign in origin and limit themselves to linking the export economy with the world overseas ... We have seen this type of development in many parts of the world, Africa, India, Latin America and the Far East."[1/]

In fact, not all the classical economists have neglected the contribution of international trade to the improvement of productive capacity. Professor Hla Myint found some such dynamic effects are traceable to the writings of Adam Smith and J. S. Mill.[2/] Recently, Professor G. Haberler has spelled out in some detail the somewhat neglected implications of classical trade theory for economic development. Among the important dynamic and indirect benefits that trade bestows on economic development in underdeveloped countries, he emphasizes particularly the provision of material means (capital

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1/ K. Berrill, "International Trade and the Rate of Economic Growth," The Economic History Review, Second Series, Vol. XII, No. 3, 1960, p. 355

2/ Hla Myint, "The 'Classical Theory' of International Trade and the Underdeveloped Countries," Economic Journal, June 1958

goods, machinery, and raw and semi-finished materials); the dissemination of technological knowledge and the transmission of managerial talents and entrepreneurship; and the international movements of capital.[1] However, it is fair to say that the static comparative costs doctrine does play a central role in the interpretation of international trade and specialization by the classical school as a whole. The recent rediscovery of some growth elements in it is chiefly a response to a new urge for a more dynamic theory of international trade.

II

If the traditional pattern of international trade has, in fact, increased both the welfare and productive capacity of the primary exporting countries, why were these countries not led to a state of self-sustained growth? Explanations may be sought from both the demand (and market) side and the supply (and production) side.

First, consider the demand side. Haberler maintains that if international trade enables a country to produce cheaper goods to exchange for what other countries can produce at a lower cost, such an exchange raises the level of income and also promotes economic development.[2] Presumably this means that an increase in effective demand would lead to an increase in investment and further increase in income. However, in the "nineteenth century" pattern of international trade, a substantial portion of the effective demand generated by foreign trade did not remain home in the primary exporting countries, but leaked abroad. Foreign shareholders received their dividends abroad and foreign managers and labor remitted much of their savings abroad. The savings of foreign corporations were also largely retained

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1/ G. Haberler, International Trade and Economic Development (Cairo, 1959), pp. 10-11

2/ G. Haberler, ibid., p. 6

in the metropolitan countries, and whenever the accumulated funds were used for replacement or for new investment in capital equipment, they were spent abroad, for there was no local capital goods industry to speak of. Such International transactions were facilitated particularly by the maintenance of an exchange standard monetary system which was free from exchange control. The saving leakage was further aggravated by the import leakage, for many kinds of manufacturing industry did not exist locally. Even where there were local goods available, imported goods were often either cheaper or more appealing in quality. In addition to the exchange standard monetary system, the maintenance of a free trade policy--the absence of tariff and quota--helped greatly in keeping imported (consumption and investment) goods cheaper.[1/] Owing to these two large leakages, the small local market for domestic products became even smaller. The transmission line from the expansion of the export sector to that of the home sector was therefore substantially narrowed.

On the supply side, a very interesting explanation was offered by Myint. He observes that the international specialization which occurred in the primary exporting countries was not really conducive to cumulative improvements in skills and productivity per man-hour, but rather led to "once-for-all increases in productivity accompanying the transfer of labor from the subsistence economy to the mines and plantations."[2/] This once-for-all improvement was, as argued by Myint, due to the fact that there was neither incentive nor time for introducing new techniques and new equipment after the initial investment in capital equipment and training in labor had been made in plantations and mines. Whenever there was a boom in the world market,

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1/ See Berrill, op. cit., pp. 355-356

2/ Myint, op. cit., p. 320

the enterprises sought further supplies of cheap labor from the subsistence economy or immigration. Moreover, the commodity booms usually came suddenly, were short lived, and allowed no time to introduce and absorb innovation. In the case of traditional crops (e.g., rice, cotton), the expansion in export production was achieved simply by bringing more land under cultivation or by placing more labor on land with the same methods of cultivation. During depression periods, there was neither incentive nor finance for new investment. Thus, once the economy was opened to international trade, further expansion in exports was made only periodically by capital-widening investment rather than capital-deepening investment, and expansion was generally not accompanied by continuous innovation after the initial increase of productivity. The source of growth power was exhausted rather quickly.

Myint's theory, however, explains only one aspect of the whole story, i.e., why productivity in the export sector itself has not improved continuously. It does not explain why the initial increase in productivity and output in the export sector has not spread to the home sector of the economy. Such spread could have been made possible by an overall increase in national income (which did, of course, take place) or inter-industry demand. The inefficacy of the overall increase in income to increase home production has already been explained by the saving and import leakages abroad. More specific reasons perhaps could be sought in the inter-industry relation aspect of production.

An industry which produces a certain commodity has both backward and forward links with other industries in the whole production structure of an economy. Backward linkage means the requirements of input-provision (raw materials, semi-finished goods, etc.) from other branches of production to be used in the production of the industry in question, i.e., the requirements of coal and transport service in the production of steel. Forward linkage means the supply of output of the industry in question for the utilization of other

branches of production. The backward and forward linkages represent a kind of inter-industry demand and supply -- a network of input-output relation. The higher the backward or forward linkages of a new industry, the more the spread of its development-inducing effect in the domestic economy. In fact, unless a country is large in size and diversified in resource endowment, such linkages will be to a considerable extent transmitted abroad through foreign trade. The extent of backward and forward linkages depends on the commodity produced. Primary products have very low backward linkages, but because they are subject to a number of stages of further processing and manufacturing, their forward linkage is high.

Most of our presently less-developed countries are not very large in size, and the known resources and production pattern (especially after opening to international trade) are skewed. Outside the subsistence sector, production is highly concentrated on a few primary export commodities. According to the statistical study of Chenery and Watanabe, the average degree of backward linkage (inside the economy) in Italy, Japan and the United States, defined as the ratio of inter-industry purchases to total production, is as low as 15 per cent in petroleum and natural gas, 17 per cent in non-metallic minerals, 21 per cent in metal mining, 24 per cent in fishing and 31 per cent in agriculture and forestry. This compares with the corresponding ratio of 50 to 90 per cent for most "intermediate" and "final" manufacture.1/ The backward linkage of these lines of primary production in our less-developed countries would be even lower than those given above, considering that they have to import many producer's goods needed in production. Primary production generally has a very high degree of forward linkage. In most fields of primary production in Italy,

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1/ Quoted by A. O. Hirschman in his The Strategy of Economic Development, (Yale, 1958), pp. 106-107

Japan and the United States, it is higher than 50 per cent. This is because there are such intermediate manufacturing industries as petroleum refinery, petro-chemicals, steel, and engineering, to make use of the raw materials. But in less-developed countries, such intermediate manufactures are almost non-existent. The high forward linkage, which involves high growth potential, is exported rather than retained in the home sectors of the economies.

Another limitation of the growth spread effect of international trade which is often overlooked is the cost of transformation from primary resources to readily available factors of production, or effective supply. 1/ There is abundant cheap labor available in many over-populated areas of the underdeveloped world. But to make use of such labor in the non-subsistence sector involves investment in moving the labor to certain places where new industries are located and in giving them necessary skill training. It is only after going through such "refining" process that cheaper labor could become available immediately to industries. Similarly, mineral resources may exist in a poor country, but could not be utilized because of lack of access by mass transportation means. Land may be fertile, but only usable after reclamation. It is

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1/ Even in the United Kingdom, the growth effect of foreign trade spread only gradually from the localized centers in the North and the Midlands to wider areas. "The second possible channel of causation may be discovered in the establishment of enclaves of higher industrial efficiency, introduced first through foreign trade, which have spread their infection progressively over wider areas until a whole nation is carried progressively towards an accelerated growth. Whatever may have happened in the last half of the eighteenth century in the United Kingdom quite certainly did not happen uniformly over the whole of the area that then composed the United Kingdom. Ireland was almost wholly left out and has remained relatively underdeveloped in most of the senses in which one uses that word today. Northern Scotland was equally left out. More important, the initial growth was very largely concentrated in the North and in the Midlands. ... It spread only slowly to the South, and the South has had most of its industrial revolution within my own lifetime and memory. The initial "take-off" was a local phenomenon which only progressively embraced and carried forward the whole country." E.A.G. Robinson, "Foreign Trade in a Developing Economy," a paper contributed to the International Economic Association Round Table Conference in Gamagori, Japan, 1960; p. 8.

only after such "resource development" investment is made that these "primary" resources become real factors of production and begin to furnish a flow of services for use in the production process. 1/ Thus, even if there exist possibilities of forward linkage in the home sector of the economy, it may not become effective because of lack of effective supply of required factors of production. Foreign private businessmen could be least interested in this tremendous undertaking of resource development, not only because the products are not for export to the world market (the domestic markets are small), but also because these products would be in competition with similar imports which they supply. Local private entrepreneurs do not have the ability to develop resources in view of the enormous technical knowledge and large amount of capital needed.

It cannot be denied that international trade has stimulated the creation of additional or new factor supplies out of God-given endowment of resources in less-developed countries, but there still seems large room for further development in those home sectors which have not yet been touched by traditional international trade. The development of those sectors need not reduce the existing level of international trade; it represents a new effort. After all, one cannot expect international trade to be the sole "engine of growth" in all cases.

The foregoing analysis is subject to qualifications. Historically speaking, the traditional pattern of trade, accompanied by a large international flow of capital, did help greatly the growth of the countries of recent

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1/ One of the drawbacks of the classical theory is the lack of clear distinction between resources and factors of production. See Romney Robinson, "Factor Proportions and Comparative Advantage," Quarterly Journal of Economics, August 1956, pp. 346-350. See also John H. Adler, "Changes in the Role of Resources at Different Stages of Economic Development", a paper presented at the Conference on Natural Resources and Economic Growth at Ann Arbor, Michigan, April 7-9, 1960.

settlements in the temperate latitudes outside Europe, especially the United States, Canada, Argentina and Australia. As pointed out by the late Professor Nurkse, international investments made by Britain, the major capital exporting country in the nineteenth century, flowed mostly to these countries. The huge capital inflow was coupled with a large number of immigrants from Europe who carried technical knowledge and skill with them. Moreover, these areas were sparsely populated and growth along familiar, western lines was exceptionally favorable. In these cases, international trade succeeded in fermenting growth. But, again as noted by Nurkse, in the nineteenth century the needy countries with "teeming millions" which also played their part in the traditional pattern of trade were indeed neglected by large international investment. 1/ The traditional pattern of international trade evidently has not spread the power of growth sufficiently to these countries. The pattern, apparently, was too greatly inclined toward imports in connection with both overall and inter-industry demand. Nor was the traditional pattern of trade a stimulant to domestic resource development. The economies of these countries have to be further developed internally, whether in connection with foreign trade or not. They have to be made more receptive to technical progress and absorptive of capital investment.

III

What are the recent trends in the international trade of the less-developed countries? It would appear that their export performance has been generally discouraging. According to United Nations statistics, during 1959-61 the level of export value of the world's underdeveloped areas was four-and-

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1/ Ragnar Nurkse, Equilibrium and Growth in the World Economy, edited by G. Haberler and R. M. Stern, p. 141

one-half times the prewar (1938) level, while that of the developed areas was five-and-one-half times. 1/ The level of export value of the non-petroleum exporting countries is substantially lower than the average. 2/ Thus the south and southeast Asian countries, which export largely foodstuffs and agricultural raw materials, are doing particularly badly: in 1959-61, the total export value of this area was less than three times the prewar level. 3/ In recent years, the export trade of the less developed countries has not fared at all well in comparison with the world trade in general and the trade of the industrially advanced countries in particular, with respects to export volume, prices and total value. (See Table 1)

1/ United Nations, Economic Commission for Asia and the Far East, Economic Survey of Asia and the Far East, (hereafter referred to as ECAFE Survey) 1962, pp. 18-19

2/ General Agreement on Tariffs and Trade, Trends in International Trade, A Report by a Panel of Experts, (G. G. Haberler, Chairman), (Geneva, 1958); p. 23

3/ ECAFE Survey, 1962, pp. 18-19

Table 1

Comparison of Trade Performance in Developed and Developing Countries, a/

1950 - 1960

	Developed Countries	Developing Countries
Rate of Growth of Trade Volume: (% per annum)		
Exports	6.9	3.6
Imports	6.9	4.6
Percentage Increase in Unit Value: (1960 over 1950)		
Exports	17.5	1.0
Imports	11.3	10.2
Shares in World Export Value:		
1950	59.8	30.0
1960	66.0	20.4

Source: United Nations, World Economic Survey, 1962, Part I, pp. 1-3.
a/ For countries included in the respective groups, see note to Table 3.

For most primary exporting countries, exports are the major dynamic factor in determining the level of general economic activity. When exports increase, the national income, investment, consumption, and government revenue all increase. Increased export earnings also provide a larger amount of foreign exchange to finance more imports to meet increased consumption and investment. Although in the larger countries such as India, and semi-industrialized countries such as Mexico, domestic investment is as important as exports or even more important than exports, in most less developed countries exports are the most important active factor in generating economic activity. The slow growth of their exports, if not accompanied by the development of the home sector,

would mean a slow economic growth in general. In the industrially advanced countries, while their exports have increased faster than those of the underdeveloped areas as a whole, their production has generally increased even faster. Their growth rate tends to be higher than that of underdeveloped countries, in view of the importance of exports as a determinant of growth in the latter. If this trend of disparity in export growth continues, and if development on the home front is not vigorously pursued in the underdeveloped countries, then the gap of income levels between developed and underdeveloped countries will tend to be widened.

Numerous inquiries have recently been made as to the causes of the slow growth of primary exports. Most of these inquiries emphasize the deficiency in world demand as a major cause. The demand deficiency may be explained in terms of income and substitution effects. The income effect, relating to foodstuffs, is an application of Engel's law on the international plane. The higher the income level in the importing countries, the less proportionally the people there will spend on imported foodstuffs. In other words, the income elasticity of demand for food items is believed to be generally smaller than the income elasticity of demand for non-food commodities, particularly in the richer countries. Coffee may serve as an example as a major commodity in the foodstuff category, bearing a low income elasticity of demand.

The substitution effect works mainly on raw materials. It is well-known that many synthetic products innovated in the industrialized countries have increasingly replaced natural products exported chiefly from underdeveloped countries. There are synthetic rubber vs. natural rubber, chemical fibers vs. silk and cotton, plastics vs. wood and leather, paper bags vs. jute bags, detergents vs. vegetable oil fats for making soap, to mention just a few. A most recent example is a new development in making synthetic rubber. For some time, the prospects of natural rubber has been considered as fortunately good,

for in a large segment of rubber use, i.e., tire-making, synthetic rubber could not match natural rubber. However, very recently it is reported that a natural-like synthetic rubber closely resembling tree rubber is being successfully produced and is being increasingly used in making rubber tires. This development has recently helped to drive the natural rubber price down. 1/ The development of production in the industrial countries of manufactured raw materials has resulted in a steady decline of the share of natural raw materials in the total material input in the manufacturing industry of the industrial countries. A G.A.T.T. study shows that, while such share for natural raw materials was 97 per cent in 1938, it fell to 85 per cent in 1955. 2/

Another aspect of the substitution effect is the development of new manufacturing techniques which resulted in the use of less raw material per unit of output. This may be regarded as a direct substitution of technology for raw materials inputs. One notable example is the development of the electrolytic process of coating tin on steel sheet for making cans, which resulted in the saving of one-half or more of the tin. 3/ The said G.A.T.T. study shows that since prewar there has been a trend of continuous decline in the average requirements for raw materials and fuel per unit of manufactured production in the industrial countries. The percentage of the consumption of

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1/ "Expanding synthetic capacity, particularly for types closely resembling tree rubber, prod prices downward. Rubber manufacturers chewed up 234,696 tons of natural rubber in the first half of 1963, about 1% less than a year earlier. But use of the new stereo, or natural-like synthetics, more than doubled to 53,000; overall synthetic comsumption climbed 6% to 631,566." The Wall Street Journal, August 13, 1963.

2/ GATT, International Trade, 1955. (Geneva, 1956) p. 12, Table 6.

3/ I am indebted to Mr. Samuel Lipkowitz of the World Bank for supplying this information.

both natural and manufactured raw materials and fuels to the gross value of manufacturing production in the industrial countries being 25.8 in 1938 and declining steadily to 20.7 in 1955.

One may argue that technical innovation in inducing synthetic substitutes and new processes has been stimulated by periodically insufficient supply and high prices of raw materials -- an argument for supply deficiency. Professor A. K. Cairncross points out that the failure of industrial countries to expand their imports of primary products between 1937 and 1957 in proportion to their economic growth must have been due, in part at least, to higher prices which have in turn reflected the low elasticity of supply. He also points out that in post-war years governments and marketing boards in these exporting countries "have been more concerned to skim off finance for other forms of development than to let high prices do the job of increasing production for such primary export commodities." He therefore argues that here is a powerful reason for industrialized countries to develop domestic supplies of primary produce, to economize in the use of imported materials, and to accelerate the introduction of substitutes. 1/ However, it seems rather doubtful whether the increases of export taxes, the application of state trading and multiple exchange rates during the Korean war boom had really siphoned off entirely the increases in world market prices of primary exports from the underdeveloped countries. Closer to the actual fact, at least in south and southeast Asia countries, is the probability that a part, sometimes perhaps a substantial part, of the "windfall" gains (with the possible single exception of Burmese rice) did go to the producers -- gains which should be large enough to provide incentives for increasing production. The fiscal and monetary measures aimed chiefly at

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1/ A. K. Cairncross, "International Trade and Economic Development," Kyklos, Vol. xiii, Fasc. 4, 1960

reducing the inflationary impact arising out of an export boom generated from abroad. 1/ The impediments to a quick increase in supply of primary exports must be sought elsewhere.

One factor is that for agricultural products there is a certain time period required from planting to maturity. For tree crops this period can be quite long -- e.g., seven years for rubber trees. If the long-term prospects of the demand for and the price of the primary produce concerned are not very promising, then the incentive in the private sector for investing more in this line of production in response to a short-term increase in the price tends to be weak. In Malaya, it is the federal government which took the initiative and made the financial and other arrangements to replant high-yielding rubber trees. (In fact, a large part of the fund comes from rubber export taxes.) The effect on supply of price instability introduces again the demand factor from the backdoor.

Natural limitations in production may be overcome by scientific and technical innovations accompanied by capital investment. This is the way the industrial countries react to substantial changes in demand and supply conditions. Thus, Professor J. R. T. Hughes, from much historical evidence, concludes: "Where the reaction to foreign trade gave rise to supply shortages, the western countries responded by new factor combinations, the 'productivity' derived from trade ..." 2/ For the underdeveloped countries, he suggests a study of relative impediments to factor mobility and policies (economic, social and cultural) to remove these impediments. The question therefore falls back on the need of resource development, or a removal of general supply

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1/ ECAFE Survey, 1957, Chapters 5 and 6, "Export Instability of Primary Producing Countries."

2/ J. R. T. Hughes, "Foreign Trade and Balanced Growth: the Historical Framework," American Economic Review, May 1959, pp. 336-337

impediments to all possible lines of production in the developing countries, not just the production of traditional primary exports. It is perhaps in this sense that the supply deficiency argument has its true meaning.

IV

Realizing the lag of traditional primary exports behind world trade, many underdeveloped countries have, during the post-war period, one after another made decisive efforts to develop their economies on all fronts. A common feature is to emphasize import substitution. This is partly a long-run policy of industrialization and partly a result of the measures taken to safeguard the balance of payments position. Import substitution is perhaps one of the easiest tasks to start with in economic development, for here the domestic market demand exists; what is needed is to restrict imports. Import restriction not only serves to retain a large portion of demand at home, but also prevents further increases in domestic demand (resulting from rises in population and per capita income) from leaking too greatly abroad. Here ends the free trade policy and the hundred percent exchange standard monetary system.

Import control has not only helped industrialization and economic development on the demand side, but also on the supply side. For, by restricting imports of non-essential consumer goods, it increases the supply of foreign exchange available for capital goods and industrial raw materials. A liberal import policy applies to capital goods manifested not only in foreign exchange and import quota allocation, but also in low tariffs or even tariff exemptions. In the new tariff schedules of many Asian developing countries, for instance, capital goods (and essential food) are particularly favored as against those manufactured goods which are deemed luxurious or which compete with locally manufactured goods.[1/] Considering the limitation of general foreign exchange

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1/ ECAFE, Survey, 1962, p. 89

shortage, this policy has contributed greatly to capital formation in underdeveloped countries. 1/ The considerable increase in capital goods supply tends to change the factor supplies situation and therefore the base of comparative advantage in future international trade. 2/

However, import substitution cannot proceed forever without limits. Abuses in protection will result in inefficiency and high cost. Also, the domestic market even with protection may still be too small to permit many industries (e.g., chemical fertilizer, newsprint, etc.) to operate on an economically large scale. This is particularly true with smaller underdeveloped countries where, in addition to the low per capita income, the population is small. Moreover, when import substitution proceeds from those most suitable lines of production (e.g., cotton textiles), to less and less suitable fields, profitable opportunities tend to be gradually exhausted. Thus, the role of import substitution tends to diminish quite sharply as countries reach more advanced stages of industrial development. In such countries as Brazil and Mexico, for example, the effect of the growth of domestic production in replacing imports has been relatively moderate in recent years.

To overcome the narrowness of the domestic market, the underdeveloped countries may form regional custom unions or some other kind of regional trade arrangement in order to extend import substitution to a larger region. This kind of devices involves a sort of regional division of labor and a regional trade liberalization policy. A country which is in a better position to develop certain industries should be given easy access to markets in other countries of

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1/ Thus, for about twenty Asian developing countries as a whole, while total imports increased by only 11 per cent in the nineteen fifties, imports of capital goods rose by 65 per cent and imports of materials for capital goods by 45 per cent. As a result, in 1958-60, imports of capital goods and materials for capital goods accounted for two-fifths of the area's total imports. Ibid., pp. 86-88.

2/ The difference in growth potentials between capital goods and consumption goods imports should form an integral part of any dynamic theory of international trade and trade policy.

the region by enjoying lower tariffs and less trade restrictions than those applied to imports from outside the region. In exchange, it should give up the opportunity of developing certain less suitable industries so as to avail its own market for products of these industries developed in other countries of the region which are in a better position to do so. To the extent that a workable scheme can be designed and agreed upon by the member countries, regional trade and development cooperation will certainly help substantially to expand the export market and to increase production efficiency.

However, it solves at best a part of the problem, for one has to remember that all the underdeveloped countries in varying degree rely heavily on the developed countries for the supply of producer's goods, especially those types of producer's goods which require advanced techniques in their production and involve continuous technical innovations. Though some less developed countries are now developing steel and chemical industries, they may still have to import large quantities of machinery and chemical products from the industrial countries for many years to come. To obtain these important producer's goods, the underdeveloped countries have to pay the developed countries with exports, unless the developed countries increase their credit and capital fund supply.

If the future prospects of primary exports are not promising, if the scope of national import substitution tends to be gradually narrowed, and if regional import substitution cannot solve the problem of capital goods supply, then the developing countries will have to seek alternative means to obtain more foreign exchange for meeting the enlarged requirement of capital formation. One alternative is to develop a domestic capital goods industry. But this probably cannot be done for many developing countries because of the lack of required resources (e.g., iron ore, coking coal for iron and steel industry), technical knowledge and skill, and a sufficiently large home market. For some larger countries such as India and for some simple capital goods there may exist possibilities, but for many developing countries the scope of these

possibilities appears to be small. An alternative is to increase the flow of external capital. This will provide finance for capital formation and at the same time ease the tight balance of payments position. However, international loans (bilateral loans are already increasingly replacing grants) have to be serviced and amortized or, in other words, eventually be paid back by exports. Or, to put it in a more positive way, a sustained increase in export earnings will enable a country to service a larger flow of foreign borrowing. There is therefore no excape from the basic solution of export expansion. And, since primary exports are generally not very promising, the answer rests obviously on the expansion of exports of manufactures.

V

It is indeed a formidable task for latecomers in industrialization to break into world markets of manufactured goods. However, there are actually a few successful cases, such as Puerto Rico, Hong Kong, Israel and Jamaica, perhaps very soon to be followed by China, Taiwan and Singapore, not to mention the classical example of Japan. 1/ In view of the wide differences in resource pattern and stage of development, such export-led growth may not be possible for many developing countries to follow. It is interesting, nevertheless, to note that manufactured exports, although they still occupy a rather small portion of the total exports of the "developing ECAFE region," (22 per cent in 1960), had a rate of increase during the fifties higher than that of any other major commodity group. During 1955-60, while total exports of the region increased by 11.5 per cent, manufactured exports increased by 40 per cent; the increase of the latter to the developed areas is even higher -- a

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1/ Cf. Joseph E. Haring, "Export Industrialism and Economic Growth: A Dynamic Model," The Western Economic Journal, Volume I, No. 2, Spring 1963, and "Dynamic Trade Theory and Growth in Poor Countries," Kyklos, Vol. XVI - 1963 - Fasc. 3

phenomenal 74 per cent. [1] (See Table 2)

Table 2

Developing ECAFE Region: Index of 1960 Export Value by Main Commodity Class and by Main Direction (1955 - 100)

SITC Section	Commodity Class	Exports To: World	Exports To: Developed Areas
0 + 1	Food, beverage and tobacco	111.7	107.2
2 + 4	Crude materials (excl. fuels), oils and fats	104.0	98.3
6 + 7 + 8	Manufactured goods, machinery and Transport Equipment	140.0	174.3
0 to 9	Total trade	111.5	110.2

Source: ECAFE Survey, 1962, p. 19

The recent divergent movements of primary and manufactured exports of the developing ECAFE region may be explained by the difference in the income elasticity of demand for them. If this is so, the high income elasticity of demand alone can justify the development of exports of manufactures. In this connection, again one should not think of classical, static comparative advantages and the traditional pattern of trade as unchangeable. Indeed, the

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1/ It is also worth noting that during this period the region's total exports of crude materials (excluding fuels), oils and fats increased the least and that those to the developed areas actually declined by 1.7 per cent. It may be argued that the slow increase in raw material exports of the developing countries is due more to population increase and industrialization than to the demand deficiency (see Cairncross, op. cit.) This may to a certain extent be true, especially in India. However, it does not follow that total exports will have to be decreased because of industrialization. Mr. A. Maizels, in his statistical findings of eleven semi-industrial countries for the period from 1937 to 1955, concludes, "Industrialization can just as well promote exports as retard them or, equally, have little or no significant influence on the total export value," (see A. Maizels, Industrial Growth and World Trade, Cambridge, 1962, p. 130). He further notes, "Much depends on the type of industrialization and the general economic and monetary policy being pursued."

deliberate development efforts and foreign assistance in capital, technology and skill are constantly changing the factor supply situation in the developing countries, as well as their dynamic comparative advantage position. Such dynamic changes, of course, cannot proceed without limits, considering especially the limitation of resource endowment. However, outside the fields of very capital-intensive and highly technology-oriented industries, there seems ample room for latecomers to imitate the pioneers or to derive their own course of industrialization from the knowledge and experience of their forerunners. Perhaps in the near future the pattern of trade between developed and developing countries will rapidly shift from an exchange of primary goods for manufactured goods to an exchange of innovation-oriented for imitation-oriented manufactured goods (including less complicated capital goods in smaller units).

The advantages of the development of manufactured exports are several. Beside the alleviation of the balance of payments pressure and the overcoming of the limitations of narrow domestic markets, it tends to lead in increases in productivity on account of international competition. Even in the same industry, the segment serving the export market has a higher propensity to standardize products and to introduce new techniques in production and marketing than the segment serving the domestic market as, for example, in the textile industry in Japan before World War I. 1/ Furthermore, manufacturing

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1/ See E. B. Schumpeter (ed.), The Industrialization of Japan and Manchukuo, 1930-1940, Part II, "Japanese Industry: Its Organization and Development to 1937" (by G. C. Allen), pp. 517-526 and pp. 579-581 (MacMillan, 1940): and W. W. Lockwood, The Economic Development of Japan (Princeton, 1954), pp. 187-189 and pp. 369-378. A similar point was recently stressed by Professor E.A.G. Robinson: "Increasing foreign exports are likely to be concentrated in those industries where relative productivity is highest and thus raise the rate of growth of the national income and the power to accumulate." E.A.G. Robinson, op. cit., p. 7.

industries in general have higher degrees of backward and forward linkages in the economy than primary production industries and therefore greater growth potentials.

The development of manufactured exports in developing countries can be facilitated greatly by trade cooperation among themselves (especially co-ordinated trade liberalization with each other). However, from the standpoint of capital goods supply, the trade policy of developed countries is particularly important.1/ Indeed, the developed countries can go a long way in adopting a more liberal trade policy toward developing countries and facilitate or even induce their industrialization and economic development. For instance, all the industrial countries maintain a clear progression in their tariff rates according to the degree of processing: in any given commodity group, the tariff rates increase continuously with the degree of fabrication, so that the raw materials bear the lowest duties and the finished products into which they enter the highest.2/ Such a tariff structure kills industrialization in the primary exporting countries before it is born. An earlier correction of these differential tariffs would at least stimulate the development of industries processing the primary products for export. In view of the stage of economic development of the less developed countries, the developed countries in adjusting their tariff structures and lowering their tariff levels should take a more flexible attitude with respect to the degree of reciprocity in this regard.

Some quantitative import restrictions are still being applied in several developed countries. For instance, in France and the Federal Republic of Germany in the European Economic Community and in Austria and Denmark in the

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1/ Needless to say, the developing countries are also very much interested in the reduction of export obstacles to their primary products.

2/ World Economic Survey, 1962, p. 67

European Free Trade Area, quota restrictions are still maintained on a number of manufactured goods in which the developing countries are interested. These include jute manufactures, coir manufactures, finished leather, leather footwear, cement, bicycles, sewing machines, electric motors, internal combustion engines, etc.[1/] In view of the recent rapid economic growth and great improvements in the balance of payments position in Western European countries, such import restrictions are clearly unnecessary and their abolition is of great interest to the developing countries. Several developing countries (especially India, Pakistan and Hong Kong) have exported substantial quantities of cotton textiles at competitive costs and prices, through the combination of cheap labor and modern machinery. However, exports of textiles are now subject to the regulations of an international long-term agreement under the auspices of the GATT, under which a country could, after consultation with the exporting countries, ask the latter to impose quota restrictions on their exports on grounds of "market disruption."

There are several strong arguments for granting developing countries more trade concessions than those received from them by the developed countries. First, there exists a fundamental asymmetric trade relation between these two groups of countries. The developed countries buy much more among themselves than from the underdeveloped countries, and the underdeveloped countries do just the reverse. This means that a certain amount of exports from the underdeveloped countries have much greater importance for their economies than it has, in the form of imports, for the economies of their developed trade partners. Thus in 1962, for instance, the total exports of the underdeveloped countries to the developed countries were worth about $21 billion, which was about 23 per cent of the world's exports to developed

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1/ World Economic Survey, 1962, p. 68

areas, but more than 90 per cent of the total exports of the underdeveloped countries. Had the developed countries bought $2 billion more from the underdeveloped areas in that year, this would have meant only a slightly more than 2 per cent increase in the total imports of the developed countries, but an almost 10 per cent increase in export earnings of the underdeveloped countries. Hence the opening up of markets for underdeveloped countries, even to a small extent, would significantly increase the external purchasing power of the underdeveloped countries. (See Table 3)

Table 3

World Trade by Major Areas, 1962

A. Value (F.O.B. in billion U.S. dollars)

Exports to / Exports from	World	Area I	Area II	Area III
World	140.6	91.4	29.6	19.6
Area I	94.5	67.4	21.2	5.9
Area II	29.0	20.8	6.3	1.9
Area III	17.1	3.2	2.1	11.8

B. Percentage Distribution

Exports to / Exports from	World	Area I	Area II	Area III
World	100 (100)	65	21	14
Area I	100 (67)	71	22	6
Area II	100 (21)	72	22	7
Area III	100 (12)	2	1	97

Source: United Nations, Monthly Bulletin of Statistics, June 1963

Note: Area I includes United States, Canada; Western Europe; Australia; New Zealand and South Africa; Japan.
Area II includes sum of regions other than Areas I and III.
Area III includes USSR and other Eastern European countries, China (mainland), Mongolia, North Korea and North Viet-Nam.

Secondly, the developing countries will continue to provide expanding markets for imports from developed countries, especially for their capital goods. The import policies which the developing countries follow have a distinct bias in favor of capital goods that are the main exports to them from the industrial countries.

Thirdly, the potential import demand of the developing countries is much more than their actual imports. The gap is not so much a result of protectionism as of the general shortage of foreign exchange resources. Thus, any degree of export expansion permitted would lead almost to the same degree of import increase. This increase would undoubtedly be in the interest of their trade partners and of world trade expansion.

VI

In summing up, international trade not only raises consumption welfare, as suggested by the classical theory, but also increases the trading countries' productive capacity, directly through imports of capital and producer's goods and indirectly through dissemination of technical knowledge, transmission of managerial talents, entrepreneurship and labor skill. It also stimulates further development in non-export sectors through general increase of income and inter-industrial demand and supply. However, such stimuli may not spread widely if there are significant import leakages, and if domestic resources are not developed for ready use in production. This was perhaps the actual situation of most underdeveloped primary exporting countries before World War II. Continuous improvement in productivity in the primary export sectors in these countries has been impeded by the availability of cheap surplus labor and by the instability of export markets. Moreover, owing to the low income elasticity of demand for foodstuffs and the endless innovation in substituting man-made materials for natural raw materials, the demand for primary exports will doubtless diminish. The growth power derived from such trade is consequently being weakened.

The deliberate policy of economic development followed by less developed countries after World War II has the significant effect of rectifying the traditional bias toward exports of primary products. The efforts toward resource development and importation of more capital goods will constantly change the factor supply and the dynamic comparative advantage position. Substantial progress has already been made in the field of import substitution, aided by import control policy. However, since the scope of import substitution is being gradually reduced as development reaches more advanced stages, further progress on the foreign trade front points to the need for the expansion of manufactured exports and the opportunities inherent therein.

In view of the gloomy prospects of primary exports and the present small base of manufacturing industry, even intensive export promotion may still not be sufficient to achieve an export-led take-off in self-sustained growth in most developing countries. For most of them, it will already have proved to be a significant accomplishment if export expansion can accompany the general economic growth and thereby prevent the foreign exchange shortage from seriously threatening growth. In this connection, a more liberal trade policy of the developed countries toward exports from the developing countries may be as important as regional trade and economic cooperation among the developing countries, for it is from the developed countries that the developing countries obtain the bulk of their capital goods. It goes without saying that an increase in the availability of external capital will greatly ease the shortage of capital and foreign exchange in the developing countries. However, to repay external debts, we shall have to fall back again on export expansion, increases in income and savings, and resource development.

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NATIONAL POLICIES FOR IMPORT SUBSTITUTION AND EXPORT PROMOTION

by

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Economic Development Institute
International Bank for Reconstruction and Development
Washington, D.C.

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NATIONAL POLICIES FOR IMPORT SUBSTITUTION AND EXPORT PROMOTION [1]

Introduction

Most developing countries are facing the important problem of how to overcome the external trade and payments constraint and thereby grow faster than they have been able to do. An increase in the flow of external capital will be of great help. But unless external capital is provided largely in the form of grants (currently tending to decrease), it cannot be the final answer, for external loans have to be serviced and amortized or, in other words, eventually be paid back by goods and services. A more basic solution lies therefore on trade: import substitution and export expansion.

It is difficult to weigh the relative importance of these two elements in the development process of any particular country. Historically, there are examples of export-led growth, as in the United Kingdom or even Japan, but there are also examples of protected industrialization in Germany and the United States. From his cross-section statistical findings of industrial growth of about 50 countries, Professor Chenery concludes that import substitution is an important cause of industrialization. He found that import substitution--defined as the increased share of domestic production in total supply--accounts for 50 per cent of industrialization and is more important than the pure increase of demand. The increase in import substitution, according to him, is a result of changes in comparative advantage. "If a country has an increase in income with no change in comparative advantage,

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1/ The paper expresses the personal views of the author, and does not necessarily reflect those of the International Bank for Reconstruction and Development, with which he is presently associated. The author is indebted to Drs. T. C. Chang, P. T. Ellsworth, A. C. Harberger, J. H. Power, and H. W. Singer for their helpful comments.

the analysis suggests that only a third of the normal amount of industrialization will take place. Changes in supply conditions, resulting from a change in relative factor costs as income rises, cause a substitution of domestic production for imports." 1/

It is conceivable that import substitution can be a natural process as the economy grows. The experience of Japan during the late nineteenth and early twentieth centuries has usually been cited as an example.2/ However, an important condition for successful unprotected import substitution is that the country's export trade should not lag far behind. Unfortunately, this is not the situation of the great majority of today's developing countries and they have to consider what are the national policies which can best foster the process of import substitution and export expansion. It goes without saying that in the field of international trade, international policies are as important as national policies. For instance, a removal of obstacles to the exports of the developing countries will contribute greatly to their expansion. However, the international aspect is beyond the scope of this paper.3/

The Current Problem

In dealing with the problem of external trade and the payments constraint to growth in the developing countries today, it seems that the traditional

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1/ Hollis B. Chenery, "Patterns of Industrial Growth," American Economic Review, September 1960, p. 641 and p. 644

2/ Reed J. Irvine, "A Central Banking Approach to Problems of Import Substitution" (Paper presented for the Seventh Meeting of the Central Bank Technicians of the American Continent), Rio de Janeiro, Brazil, October 1963.

3/ The author has dealt with these aspects elsewhere. See Shu-Chin Yang, "Foreign Trade Problems in Economic Development," Scottish Journal of Political Economy, June 1964. See also United Nations, World Economic Survey, 1963, part I.

issue of free trade versus protection is irrelevant. With very few exceptions, the developing countries have already had a host of trade and exchange control measures in operation for many years. The assumption of equilibrium in the balance of payments and in other sectors of the economy in the traditional discussion is just not applicable to the real situation in the developing countries. It would be futile to describe to their policy-makers the ideal or optimum in international trade which in any case does not prevail in today's world economy. Moreover, being unequal partners in world trade and plagued with intense external difficulties, clearly it would not be feasible for these countries to return to free trade.

Development economists are concerned with the justification of policies to protect domestic industries and safeguard the balance of payments. But the fact is that less developed countries already use a number of control measures to encourage import substitution and exports, and these measures have been largely introduced haphazardly on a piecemeal basis to meet emergency situations. As incentives have been piled upon incentives and controls upon controls, the situation has become chaotic. Thus, the question now is not how to justify protection and controls, but rather whether the measures adopted make any collective sense.

A new and comprehensive approach to the trade and development problem is the programming approach. It recognizes the existing distortion of the price system (including the exchange rate) and the imperfection of markets in less developed countries. But by using input-output analysis and linear programming, it tries to determine the "accounting" or "shadow" prices of primary factors of production and of foreign exchange and therefrom to determine simultaneously the comparatively advantageous fields of import

substitution and export.[1] If reasonably accurate and sufficient statistical data were available (in most cases they are not--at least for the present time and the near future), the programming technique would be useful. But its results still cannot be specific enough at the individual project level and they can provide only a guide to policy-making, not policies themselves.

It is useful, for example, to determine the most efficient pattern of resource allocation, and the areas most suitable for saving, or earning, more foreign resources. But this does not mean that once this pattern is determined, the program will be automatically implemented. There still remains the question of how to make the accounting prices effective. Unless the economy is centrally planned and controlled, there still will be the very ticklish question of the kind and amount of incentive to provide to, and the type and number of controls to exercise over, the private sector, so as to modify market prices appropriately and cause actual investment to be guided by the accounting prices. In addition, there are social and institutional inertia, frictions and rigidities which cannot be overcome by pecuniary incentives and administrative controls. In such cases, programming is clearly not an adequate substitute for social and educational measures.

A more realistic approach is to recognize the present situation of less developed countries, but try to consolidate the existing policies and make them more consistent, more rational to serve the purpose of development. The result may be the second best, but it must be feasible in the context of the present world trade situation in general and the trade and economic situation of the individual countries in particular. The answer cannot be simple, for many countries have adopted more than one kind of control--usually a combination of two or three or even more of such measures as tariffs, subsidies, import surcharges, multiple exchange rates, quantitative restrictions, tax and credit incentives, etc. In searching for a rational solution, one has first to examine the individual measures one by one.

1/ See Michael Bruno, "The Optimal Selection of Export-Promoting and Import-Substituting Projects," paper prepared for this Seminar. (Jerusalem, April 1965)

Policies Affecting Import Substitution

It is impossible to single out trade and exchange policies designed exclusively for the purpose of import substitution. For instance, quantitative import restrictions have been used for both balance of payments purpose and for protection; more often than not the emphasis has been on the former. A multiple exchange rate system, or a devaluation affects both imports and exports; again, it does not exclusively aim at import substitution. But some policy measures have more bearing on import substitution than others, such as tariffs designed solely to protect domestic industries. In any case, every national trade and exchange policy has in one way or another some effects on import substitution, though the degree of influence differs. The various measures in this area may be listed as follows:

(a) Import duties,

(b) Tax exemptions and subsidies (including low interest loans and similar "cost reduction" devices),

(c) Import or exchange surcharges and multiple exchange rates (in various forms, e.g., exchange retention schemes),

(d) Devaluation, and

(e) Quantitative import and exchange restrictions, including prohibition of imports.

Among these measures, so far as their effects on import substitution are concerned, import duties and import surcharges may be regarded as price protection devices, tax exemptions and subsidies as cost reduction devices. Multiple exchange rates can be a combination both of price protection when the exchange rate(s) applied to competing imports is(are) unfavorable, and of a cost reduction device when the exchange rate(s) applied to inputs used by domestic industries is(are) favorable. In contrast to these measures, quantitative restrictions are a sort of quantity protection. Devaluation

can always be considered as an import-substitution and an export-promotion policy; but if devaluation only brings an overvalued exchange rate to "the equilibrium exchange rate," it means just the restoration of the exchange rate to its neutral position towards imports and exports. (This applies also to a floating exchange rate.) Thus, only when the exchange rate is brought above "the equilibrium rate" can devaluation be considered truly as a weapon of import substitution and export promotion.[1/]

In fact, after the end of World War II, most developing countries started their development efforts with an overvalued currency, with exchange rate adjustment lagging behind wartime or postwar price inflation, or failing to adjust altogether. By starting with a "disequilibrium system," they needed some strong measures to prevent a worsening of the situation. In most cases the choice was quantitative restrictions.

Like trade and exchange policies, fiscal and monetary policies also affect both import substitution and export promotion. General fiscal and monetary policies for checking inflation tend to keep the cost of production of import-substituting and export industries from rising and therefore help to retain their competitive position against foreign goods.

In most developing countries, specific fiscal and monetary measures have also been adopted for inducing industrialization. The most common ones are tax incentives and easy credit. Usually exemptions from import duties on machinery and raw materials used by the industries, from a business tax, or from the corporate income tax, etc., are given for specific periods.

1/ On the other hand, if the currency is overvalued, it would mean a uniform ad valorem subsidy on all imports and a uniform ad valorem tax on all exports.

Liberal depreciation allowances, carrying over into subsequent years in case of losses in the current year, are also generally offered. When there is credit control in developing countries, usually the monetary authorities permit or even support a more liberal extension of credit by commercial banks to import-substituting and export industries. Sometimes rediscount and refinance facilities at low interest rates are offered. While these measures will not be dealt with in detail in this paper, their effects should be borne in mind, for it is the "total effect" of all these protective and incentive measures in the fields of trade, exchange, credit, taxation, etc., which matter in considering the total level of protection. Also, it is important to know all the related measures and their effects when one is trying to change one or two particular policy instruments.

Quantitative Import Restrictions

One of the most common types of trade and exchange systems in developing countries has been a combination of an overvalued currency with quantitative import restrictions. In most cases, quantitative restrictions were imposed for the purpose of safeguarding the balance of payments. In the earlier postwar years, it was generally considered that the demand for imports either for meeting pent-up demands or for reconstruction was price inelastic. On the other hand, the demand for and the supply of exports from primary producing countries were also generally believed to be price inelastic, especially because of war dislocation. It was therefore feared that devaluation might just enhance inflation and contribute little to the correction of the imbalance in international payments. It was natural for those countries to continue or strengthen quantitative restrictions used in wartime, for they were generally believed to be a sure and quick-acting means

for defending the balance of payments and allocating the scarce foreign exchange resources among competing urgent needs.

What are the implications of quantitative restrictions for import substitution? Once quantitative restrictions are imposed on imports, prices of imported commodities in domestic markets tend to rise immediately. As the extent of the immediate price rise depends on the scarcity of the imported commodities, which in turn depends on the degree of restriction, such price rises may serve as a measure of the extent of protection resulting from quantitative import restrictions. However, protection of this kind is absolute, irrespective of what happens to the differentials between domestic market prices and landed costs of the imported commodities. It shuts off price (and quality) competition.

Under such absolute protection, prices and production of domestic substitutes tend to increase. The increased domestic production fills the existing supply gap as well as the growing gap caused by rising income.

A further stimulus to import substitution is provided by the pattern of quantitative import restrictions. Usually, imports of basic food and essential consumer goods are less restricted and are given higher priority in foreign exchange and import license allocation, for the purpose of keeping the cost of living low. Similarly, imports of capital goods, raw materials, and fuels are preferred for the purpose of developing domestic agriculture and industry. In contrast, imports of processed food and manufactured consumer goods are more severely restricted and imports of luxury goods are sometimes even completely prohibited. As permitted imports are purchased at the overvalued official exchange rate, this means disguised subsidization. With market protection on the outputs and hidden subsidies

on the inputs, import-replacing industries tend to grow rapidly. In the postwar development of less developed countries quantitative import restrictions appear to be the most powerful instruments in initiating industrialization through import substitution.

Such a system of encouraging import substitution is however not always a blessing. First, as less essential consumer goods and luxuries are more severely restricted than other commodities, domestic production of this kind of commodities receives correspondingly higher protection. Thus, more resources are attracted to the production of less essential goods. For example, during 1955-1962 output of domestic refrigerators and room air conditioners in India and the Philippines increased much faster than many producer goods, such as caustic soda and cement in the Philippines and sulphuric acid and steel in India.[1/] As the pattern of restrictions is determined predominantly by balance of payments and cost of living considerations, the resulting development of import substitution has not been closely in accordance with comparative advantage. Many developing countries, however, have tried to correct the distortion in resource allocation by the imposition of corresponding excise taxes on the domestic production of socially less desirable goods.

Second, the favorable treatment of imports of capital and producer goods has yet another implication. The practice encourages the use of imported inputs and discourages import substitution of raw materials, semi-finished products or capital goods. For the imported capital and producer goods are purchased at the overvalued official rate and are therefore cheap in terms

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1/ United Nations, Economic Survey of Asia and the Far East, 1963, Table II-13, pp. 41-43

of local currency to the users who can obtain import licenses. Thus, the less domestic inputs used, the more profit can be made by the import-replacing industries. This is why the packaging and labeling, or in one word the "finish-touch" industries, are flourishing in many developing countries under the quantitative restrictions system. Thus, industrialization in this form becomes rather superficial and lacks depth. Also, as imported capital goods are cheap, it encourages the adoption of capital-intensive techniques in production, while labor is the abundant factor in the economy. Meanwhile, as imports of capital and producer goods are stimulated, the pressures on the foreign exchanges mounts. Then more restrictions are needed on imports of non-essential goods; this further accentuates the distortion in resource allocation.

Thirdly, as the import-substituting industries grow fast, and the total availability of foreign exchange is limited, even the demand for the preferred imports of capital and producer goods cannot be fully satisfied. Moreover, cumbersome procedures in administering import licenses introduce delay, while favoritism and corruption prevent imports from flowing directly to the end users. The resultant shortage of imported materials and spare parts tends to cause many plants of the new industries to operate far below capacity. A substantial part of capital equipment invested becomes idle and wasted. As the plants are not operated at full capacity, the average cost is higher, and the output smaller.

Fourthly, there is hardly any incentive for improving efficiency of production under quantitative protection, for competition from abroad is limited by administrative decision. Price and quality are generally not determinants in setting import quotas. No matter how high the domestic

market price, how poor the quality of domestic products, no more imports than the quotas are permitted. The higher prices mean, of course, welfare sacrifices on the part of the consumer. But if this sacrifice can be compensated by future reduction in prices and future increases in employment and real income, it may be justified as a necessary transitional state. However, it appears uncertain that this future course will follow under the control system.

Fifthly, in close relation with the general inefficiency of the import-substituting industries is the penalty to the export sector. The overvalued official exchange rate generally applied to exports is unfavorable to the development of export industries. The fast-growing import-substituting industries tend to draw material, financial and labor resources away from the export sector. Where export industries use products of some import-substituting industries as their inputs, the high prices of such products also push up the cost of production of the export industries. Such upward pressure on the cost structure can do much damage to the export sector, especially if accompanied by inflation. Consequently, the country's foreign exchange earning power is weakened. In a way, the country is developing import-substituting industries at the expense of its export industries.

It may be argued that quantitative restrictions are the most powerful weapon to protect the balance of payments and to stimulate the development of domestic industry. Since many developing countries today are experiencing slow growth of their traditional exports and balance of payments difficulties, they cannot do away with quantitative restrictions. The question, however, is not whether or not to abolish quantitative restrictions entirely and return to free trade. The question is whether some other combination of

exchange and trade policies can do the job better. For instance, a downward adjustment of the exchange rate to cure the long-pending currency overvaluation would reduce the need for quantitative restrictions and meanwhile restore the export sector to the position it deserves. Import duties can be adjusted to suit more specifically the purpose of protection and allow a reasonable amount of foreign competition. It may be found that even with all these changes, balance in international payments is still not obtainable and quantitative restrictions may still be needed. But such need will be much less than before. For instance, quantitative restrictions may still have to be used to curb imports of luxury consumption goods, in combination with corresponding excise taxes to discourage domestic production of similar goods. Quantitative restrictions may still be used as a protective device so as to prevent market disruption or to countervail dumping. But they should be used only on a limited, selected basis. When used for protection, import quotas should be gradually reduced with the objective of making the industry in question eventually viable.

Multiple Exchange Rates

The application of quantitative restrictions tends to result in windfall profits to the favored importers. But if effective administrative capacity exists, it is possible to keep the balance of payments gap in bound. If not, the result would be both windfall profits for importers and the continuation of the balance of payments trouble. Even if this happens, a country may still not want to devalue its currency for a variety of reasons, including fear of inflation and loss of confidence in the currency. Multiple exchange rates therefore become a welcome compromise, under which higher exchange rates are generally applied to less essential imports than to imports

of basic food and of capital and producer goods. This reduces greatly the pressure on imports compared to a system of quantitative restrictions and siphons off at least partly the windfall import profits. Many countries also use some quantitative restrictions in combination with multiple exchange rates,[1/] but the severity of such restrictions is much less. Low exchange rates are usually applied to traditional exports, because it is often found that such commodities can still be exported even under penalty exchange rates, and their supply appears to be rather price inelastic. Other minor and particularly new exports are usually "encouraged" by a higher exchange rate. Thus, a partial devaluation becomes a substitute for across-the-board devaluation and straightforward quantitative restrictions. It significantly shifts the burden of defending the balance of payments from administrative controls to the price mechanism.

Like quantitative restrictions, multiple exchange rates also serve the purpose of protecting domestic industries. In some cases, protection is just an incidental effect of the primary concern of safeguarding the balance of payments. In others, it is an important consideration in setting up multiple rates and grouping the corresponding imports. By using stratified exchange rates for protecting domestic production, the government is generally able to circumvent the difficulties of tariff adjustment which usually raises the ticklish problems of internal legislation and external commitments under the General Agreement on Tariffs and Trade (GATT).

Insofar as the imports corresponding to the different exchange rates are classified on the principle of essentiality, the multiple exchange rate

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1/ Some luxury items, e.g., passenger cars, whose imports are relatively easy to control, are subject to both quota restrictions and a high exchange rate.

system, like quantitative restrictions, distorts the pattern of investment and production. It raises the domestic prices of non-essential goods and keeps those of essential goods low. Thus, it encourages domestic production of the less essential commodities protected by the higher exchange rates, unless corresponding excise taxes can be imposed. The extent of protection (or subsidies) depends on the difference between the actual exchange rate and "the equilibrium exchange rate." Such protection is not necessarily in accordance with prospective comparative advantage in the sense that given a reasonable period of time, the industries would become efficient producers.

For achieving a more rational protection, a multiple exchange rate system may have to consist of a large number of rates, each applicable to a few industries. This may become impossible to administer. Each interested group will press for a more favorable exchange rate, or urge for a reclassification of the commodity concerned to a more favorable category. If exchange rates are multiplied to suit individual industries, then protective tariffs would be a better choice.

Similarly, on the export side, multiple exchange rates tend to encourage new and less efficient export industries at the expense of more efficient industries. Even within the broad category of new industries the system usually does not separate the deserving from the undeserving in accordance with prospective comparative advantage. If a more rational rate for each individual industry is desired, then it would be better to use straightforward subsidies. Subsidization would lay each case open to the public; to the extent that it was unacceptable, a subsidy would not be granted. In fact, under the multiple exchange rate system, traditional exports are usually subject to a disguised tax and thereby discouraged.

In spite of these deficiencies, the multiple exchange rate system has its advantages over the system of currency overvaluation-cum-quantitative restrictions. For first of all, it relies more on the price mechanism through disguised taxes and subsidies. Although the commodity grouping still requires some administrative decision, the reliance on arbitrary import quotas is greatly reduced. It challenges the adequacy of the official exchange rate and actually moves the "average" rate to a more realistic level. In case the average effective import rate is higher than the average effective export rate, the difference, representing a sort of taxation on international transactions, yields revenue to the government or exchange profits to the monetary authority--which is a disinflationary factor. In many cases, a floating exchange rate is allowed to exist together with other rates, which helps to some extent the adjustments of demand and supply in the various balance of payments items. It also helps in finding a realistic level of the exchange rate at which the multiple rates can be eventually unified. Thus, a multiple exchange rate system, if not complicated in structure and difficult to administer, can be an expedient transitional device towards eventual devaluation and unification of exchange rates.1/ It should, however, not be a permanent system. In the course of the unification of rates, the disguised taxes and subsidies naturally have to be brought into the open. This gives rise to an opportunity for rationalization--especially the incorporation of some of the disguised taxes into the tariff system. Once the exchange rates are unified, and the final rate

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1/ Shu-Chin Yang, A Multiple Exchange Rate System, An Appraisal of Thailand's Experience, 1946-1955; The University of Wisconsin Press, 1957; Chapter 10

is moved to a more realistic level, the question of what would be a desirable measure for the protection of import substitution automatically emerges again and takes a new dimension.

Multiple exchange rate systems can be supplemented in many ways. On the export side, one of the most common is the exchange retention scheme, by which a certain portion of exchange earnings from a certain export commodity is surrendered to the central bank at the official exchange rate while the rest can be sold at the free market or higher rate. Since this scheme works essentially on the export side, it will be discussed in a following section on export promotion policies. On the import side, exchange and import surcharges are akin to multiple rates. Exchange surcharges are usually applied to foreign exchange sold by the central bank for payments for merchandise imports and services. Import surcharges usually take the form of different rates of ad valorem duties imposed over and above the regular import duties on broad categories of goods. The system is equivalent to multiple exchange rates applied only to the merchandise import side, not on exports and invisibles. Its effects on imports and domestic investment and production, and its administrative problems, are similar to those of a multiple exchange rate system.

Tariffs and Subsidies

Protection for import substitution has been traditionally discussed exclusively in connection with tariffs, assuming international payments are generally in balance, the exchange rate is an equilibrium rate, and no other trade restrictions are imposed. But if the currency is overvalued, the tariff would lose part of its power of protection. On the other hand, if

quantitative restrictions are used, the need for tariff protection would be less. Thus, if the currency is overvalued by 20 per cent, a 35 per cent ad valorem tariff will only leave 15 per cent net protection. But if at the same time, quantitative import restrictions are also applied, and the domestic market price of the imported commodity in question is 25 per cent higher than without the restriction, the net protection would be 40 per cent. If, instead of a simple uniform exchange rate, there are multiple exchange rates and the effective exchange rate applied to the imported commodity concerned is 15 per cent undervalued, and there is no import quota restriction, then the effective protection would be 50 per cent. Excise taxes, if there are any, should be considered as negative factors in connection with protection. Thus, the level of protection is generally determined by the apparent tariff rate minus (or plus) effective currency overvaluation (or undervaluation) plus the extent of a domestic price rise due to quantitative restrictions and minus the excise tax rate. Therefore, one cannot discuss an adequate level of tariff protection without looking also into other related measures.

A growing number of developing countries are moving away from quantitative restrictions towards multiple exchange rates and from multiple exchange rates toward a devalued unified exchange rate. They have therefore felt the need for relying more and more on tariffs for trade and development purposes. The need for tariff reform is particularly important for those countries whose tariff systems are bound either by traditional links or by commercial treaties with former metropolitan powers, or geared predominantly to revenue. In such countries protective tariffs have been rarely used. Only in recent years, have more and more developing countries begun to revise their tariff systems.

The arguments for tariff protection have a long history and have recently been advanced further along with the advancement of development economics. It is not intended here to review the literature on tariff protection.[1/] But it would be useful to mention briefly some of the basic reasons supporting the policy of tariff protection, for these reasons have a bearing on the choice of policy measures.

It is generally believed that there are sound reasons for protection of import-substitution industries. The existing comparative advantage cannot be regarded as a perfect or even adequate guide for long-run international specialization. For the true long-run comparative advantage has not been realized in the developing countries because of structural rigidities manifested in factor immobility, and possibilities of external economies. The factor immobility argument (particularly that of E. E. Hagen) emphasizes the fact that average income per person engaged in industrial activity is substantially higher than that in agricultural production and that the income differential persists because of the existence of vast surplus laborers in the agricultural sector. However, owing to inertia and other factors labor tends to stay in agriculture; to overcome inertia and immobility, a premium would have to be added to the subsistence wage prevailing in the agricultural sector in order to make the surplus labor available to the urban industrial sector. Protectionism tends to raise real income, "if

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1/ For such review, see the following two articles: H. Myint, "Infant Industries Arguments for Assistance to Industries in the Setting of Dynamic Trade Theory," in Roy Harrod (ed.), International Trade Theory in a Developing World (Macmillan, 1963); and Margaret G. de Vries, "Trade and Exchange Policy and Economic Development," Oxford Economic Papers, March 1966.

the increase in the aggregate cost of the industrial product to its buyers is less than the increase in income to the factors which shift from agriculture to industry" and Professor Hagen suggested "the apparent historical phenomenon may be accepted." 1/

Current costs and prices are unsatisfactory indicators of long-run comparative advantage also because if external economies can be realized in the future, the cost price structure will change and so will future comparative advantage. In order to bring out such external economies, protection is needed during the transitional period. There are various interpretations of external economies. Some economists emphasize the availability of economic overhead facilities or economic infrastructure; others the benefits of the learning process required for management, labor, marketing, methods of production, etc.; and still others and more recently the advantages of balanced growth and the interindustry relation.

What we are interested in here is what would be the policy implications of these arguments for protection. Regarding structural rigidities, it has been argued by orthodox economists that since the troubles are deep-rooted in internal factoral immobility, the remedy logically lies with improvement of factoral mobility, such as land reform, education, training of labor, the development of capital markets, etc., rather than interference with foreign trade. However, no advocates of protectionism would oppose the improvement of internal mobility of factors of production. Only they think such a remedy would take a long time to yield results, while the need for development in underdeveloped countries is urgent. The real issue, however, is

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1/ Everett E. Hagen, "An Economic Justification of Protectionism," Quarterly Journal of Economics, 1958, pp. 496-514

the choice of policy measures: tariffs vs. subsidies for the purpose of promoting import substitution. The orthodox economists argue that subsidies are definitely preferable because they keep prices at competitive level and do not distort price relations and consumption and investment decisions.

In practice, however, hardly any developing countries find it possible to organize subsidies in any substantial way to facilitate import substitution. The only successful case of using large-scale subsidies for industrialization to the knowledge of the author is perhaps the development of the Italian South. The Cassa per il Mezzogiorno (The Fund for the South) established in 1950 was empowered to carry out a program of extraordinary measures to assist the development of southern Italy. The central government provided an over-all appropriation for the 1950-65 period of 2,069 billion lire ($3.3 billion) or an average of $220 million a year. About three-quarters of this amount has been allocated for the construction of infrastructure, and about 22 per cent for the provision of incentives to private industries.[1/] The latter has been largely spent since 1960, and recently the South achieved a higher growth rate than the North. The heavy use of subsidies in southern Italy has been conditioned by the fact that (a) within a country the South cannot impose protective tariffs on imports from the North, and that (b) the State has ample financial resources--chiefly from the North--and meets no objection to using them to subsidize the South. While most developing countries have no financial resources to support large-scale subsidies, they also have no inhibition to using protective tariffs.

1/ Gustav Schachter, The Italian South (Random House, 1965), pp. 169-171

An effective program of subsidizing import substitution would require a large amount of public finance. In the developing countries today, where would the funds come from? Internal taxation is exactly one of the fields where developing countries find it difficult to move ahead. In contrast, it is comparatively easy to tax imports. As a matter of fact, while in developed countries customs revenue is generally a small part of total government revenue, in underdeveloped countries it constitutes a large proportion. Even in the United States in 1850, import duties produced 90-95 per cent of the federal revenue; the figure has now dropped to below 2 per cent.[1/] It is natural that the developing countries today have to rely substantially on import duties for both protection and revenue. Import duties may have the side effects of some misallocation of resources, but so far as protective tariffs are concerned, if they can be gradually reduced and eventually removed as the industries become mature, such effects would be only transitional in character. Granted they are not the optimum solution; but they are the second best and feasible policy measure to adopt.

An exceptional case may be petroleum exporting countries where ample financial resources are available and foreign exchange is not scarce. In such countries, it may be desirable and feasible to use subsidies to encourage the development of import-substitution industries, particularly because they would not affect adversely the income distribution as tariffs would, by raising the prices of mass consumption goods (e.g., textiles).

Recent discussion of external economies raises further policy questions with respect to protection. It is argued that external economies can

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1/ C. P. Kindleberger, Foreign Trade and the National Economy, p. 137

be realized easily if a constellation of industries develops simultaneously. For this would enable the transmission of external economies both horizontally and vertically throughout the whole industrial structure. Hence, the need for protecting the infant manufacturing sector as a whole instead of just isolated infant industries. This argument is reinforced by the existence of factoral immobility, for a general protection of the manufacturing sector tends to attract more underemployed labor from agriculture than isolated protection.

To make the protection of the whole manufacturing sector effective, it was suggested that a uniform ad valorem tariff be imposed on all manufactured imports, leaving the selection of individual industries to market forces,[1/] or a system of dual exchange rates be introduced.[2/] This would eliminate the government's difficulty in deciding what industries are eligible for protection.

If a uniform ad valorem tariff on all manufactured imports is superimposed on the existing tariff regime, it would mean an import surcharge on manufactures. This measure would have the effect of reducing import expenditures. As far as its protection effect is concerned, it tends to give higher protection to those industries whose competing imports are price elastic in demand than to those whose competing imports are price inelastic. This

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1/ See Margaret G. de Vries, op. cit., referring to Nicholas Kaldor, "Conferencias sobre desenvolvimento economica," Revista Brasileira de Economia, March 1957; Gerald M. Meier, Leading Issues in Development Economics (Oxford University Press, 1964), p. 303

2/ Nicholas Kaldor, "Dual Exchange Rates and Economic Development," Economic Bulletin for Latin America, September 1964

may not be in conformity with comparative advantage. However, an underdeveloped economy that relies heavily on a few primary exports and is in the initial stage of development has no way of identifying those manufactures that have a potential comparative advantage, adoption of uniform protection may be helpful in inducing initial diversification, with the choice of industries suitable for individual protection left to a later stage. But for those countries where import or exchange surcharges, or multiple exchange rates, or quantitative restrictions are already in force, and some industries have been established, there should be some clues as to the suitable pattern of industrial development. In such cases, specific protection may be considered.

Aspects of Tariff Protection

We have just touched upon the question of general vs. selective protection of manufacturing. Other important questions are how to define the degree of tariff protection, what should be its appropriate level, and how long should it last?

It is very important to distinguish the apparent rate of protection from the effective rate of protection. The apparent rate of protection is the ad valorem tariff rate on the price of the product of the industry, while the effective rate of protection is the ad valorem tariff on the "value-added" per unit of output of the industry. Since the industry's (direct) contribution to the economy is represented by its "value-added," the effective tariff rate represents the real protection. Thus, if the apparent tariff rate on cotton cloth is 30 per cent, and the cotton weaving industry added 40 per cent to the end products the effective tariff protection of the industry is $0.3 + 0.4 = 0.75$ or 75 per cent. This relation can

be written in a general form as follows:

$$t = e.v, \quad \text{or} \quad e = \frac{t}{v}$$

where t is the tariff rate on the end product, e, the effective tariff rate for the industry, and v, the percentage of value-added in producing the end product by the industry.

Thus, with the same rate of apparent tariff, the effective rate of protection can differ among industries, depending on the differences in the proportion of value-added. Given the apparent tariff rate, and if there are no tariffs on imported inputs, the lower the percentage of value-added, the higher will be the effective protection of the industry. It becomes immediately clear that a uniform apparent ad valorem import duty on manufactured goods of final stage only does not result in a uniform rate of effective protection. It gives higher real protection to industries with a lower proportion of value added.

Considering further the relation between tariff on end products and tariff on imported inputs (e.g., raw materials, semi-finished products, components or parts), we can write:

$$t = e.v + t_m . m_m; \quad \text{or}$$

$$e = \frac{t - t_m . m_m}{v},$$

where m_m represents the percentage of imported inputs in the total output and t_m the weighted average rate of apparent tariffs on imported inputs. Given a fixed tariff rate on the end product, if imported inputs are tariff free (i.e., $t_m = 0$), it pays for the industry to use cheap imported inputs as far as possible up to the final stage of production, because the smaller

the proportion of value added, the higher would be the real protection. But given the same tariff rate on the end product, if imported inputs are also taxed (i.e., $t_m \triangleright 0$), and if industry cannot change further its proportion of value added or raise the price of its output, then the effective rate of protection is reduced, and for the economy as a whole protection becomes more widely and evenly distributed.

If the country's resource endowment is such that certain raw materials or semi-finished products cannot be produced at all, zero tariffs on such inputs would not hamper domestic production of their substitutes. But if there exists ample possibilities of producing such intermediate products at home, the end product industries have progressed to the point where they can survive low effective protection, an imposition of tariffs on those inputs tends to extend the process of import substitution to semi-finished goods, raw materials or even to capital goods. Thus, a timely adjustment of the tariff structure tends to stimulate the process of backward linkage inside the economy. In fact, India has already raised her tariffs on machinery in order to encourage the development of her engineering industry.[1/] On the other hand, non-discriminatory low tariffs on semi-finished goods and raw materials would sooner or later prevent the process of industrialization from going further. A positive and dynamic application of the selective protection policy by stages is perhaps better than the non-discriminatory, uniform ad valorem tariff applied only on finished manufactures. The success of this policy, however, depends greatly on the intelligent selection of the right industries[2/] at the right time.

1/ United Nations, Economic Survey of Asia and the Far East, 1963, p. 74

2/ See Bruno, op. cit., Section IV

Regarding the general level of tariff, there has been much theoretical discussion of the "optimum tariff" which will improve the terms of trade but not reduce the volume of trade. However, as the marginal utility of real income differs among rich and poor countries, the optimum tariff for the latter may be higher than that for the former.[1] The concept of the "optimum tariff" nevertheless is hardly useful in connection with the discussion of the level of protection. "It is true that tariffs improve the terms of trade, but this is seldom their purpose. A tariff for protection fails if the foreigner pays the whole duty. The same quantity imported leaves the domestic price unchanged and benefits no domestic producer." [2]

There is obviously no a priori way to determine the absolute suitable level of tariff protection. A general criterion is that the tariff wall should not be so high as to push the cost structure of the economy up so as to damage its ability to export and to lessen its prospects of eventually lowering the tariff wall. It may be argued that broad protection would permit a cluster of industries to become established, forming each other's market. But this neglects the "cost-push effect" on the supply side. There is a strong possibility that if tariff protection is given extensively it will raise costs through the input and output linkages. And this is not limited to the manufacturing industries only. A high tariff on chemical fertilizer, though protecting the domestic chemical fertilizer industry, will increase the cost of agricultural production. Consequently, exports of agricultural products may be hampered.

1/ Marcus Fleming, "The Optimum Tariff from an International Standpoint," Review of Economics and Statistics, February 1956

2/ Kindleberger, op. cit., p. 142

In addition to working through input-output links, cost-push effect also operates at the factor level. If protection is provided to a wide range of industries, capital and labor will be absorbed by these sheltered industries and withheld from alternative fields of production. The export manufacturing industries will be the first to be adversely affected, for they use kinds of labor and financial sources similar to those used by import-substitute industries.1/ In the initial stage of import substitution, when a developing country has no manufacturing export industries to speak of, the "resource-shift" and "cost-push" effects may not be felt. But after some progress in industrialization, when domestic markets are gradually filled and industries start to look for overseas markets, the high cost structure will clearly become an obstacle. This perhaps explains why many developing countries which have started with inward-looking import substitution at any cost, find later that they have gone too far and begin to feel the pressure of high costs at the time when they are ready to export. The pressure tends to be particularly heavy if inflation prevails.

The period of protection is closely related to the degree of protection. The purpose of protection is to help the infant industry to grow to maturity. It is justifiable to draw resources from other sectors of the

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1/ Alfred Marshall recognized long ago a protective duty "which helps a young industry to develop its latent strength, may be in the interests of an undeveloped country, even though the tax must inevitably do some hurt to those few of her industries which are manufacturing for exportation." Alfred Marshall, Money, Credit and Commerce (Macmillan, London, 1923), p. 218, quoted by E. M. Bernstein in his "Tariff Protection and Economic Development" (mimeographed, 1956), p. 3. For a more general discussion, see Loreto M. Dominguez, "Some Guidelines for Industrial Policy in Developing Countries" (mimeographed).

economy to accomplish this task only if this is transitional: it is not justifiable if this is prolonged indefinitely. Persistent protection tends to perpetuate the use of more domestic resources per unit of dollar for saving foreign exchange than that for earning foreign exchange. This is wasteful resource allocation. It is therefore advisable that before protection is granted, a thorough study should be made of present and prospective costs, prices, quality of products, markets and management of the particular industry and its relation with other industries, as well as similar information on competing industries abroad. Such information is necessary to determine the height as well as the duration of the tariff. A time schedule for reducing the tariff by stages should also be agreed upon with the industry, so as to force it to improve its efficiency gradually.

Policies Affecting Export Promotion

Incentives to Offset Disincentives

In the developing countries many export promotion measures are not truly export promotional but offset the unfavorable effects on exports resulting from the operation of other trade and exchange policies. When an overvalued exchange rate is maintained and quantitative import restrictions are applied, the export sector tends to be badly squeezed. Local currency receipts per unit of foreign exchange are reduced, while costs tend to increase because prices of the inputs used in the export industry tend to rise. If, in addition, general inflation prevails, the cost-price structure of the entire export sector tends even more to be out of step with world markets. In such a situation, exports other than traditional primary commodities with high comparative advantage tend to be most adversely affected. To create new exports and to increase export diversification is next to impossible.

An overvalued exchange rate amounts to a disguised uniform ad valorem tax on exports. It draws resources away from the export sector and redirects them to the domestic sector. To correct the situation while still preserving the overvalued exchange rate, some developing countries, such as India, imposed an excise tax on commodities catering to both domestic and export markets. This policy aims partly at increasing domestic prices of the export commodities, reducing domestic consumption and thus making larger exportable surpluses available. However, this immediately conflicts with the objective of a low cost of living, one of the main purposes of an overvalued exchange rate. On the other hand, it may not much help the production and exportation of the commodities because the amount of domestic currency obtained per unit of dollar export remains the same. This appears to be a defensive measure rather than a positive one.

The disappointing export performance of developing countries may also prompt the introduction of other export promotional measures such as subsidies, rebates of excise tax, concessions on income tax, concessional supply prices to exporters, concessional freight rates, etc. But again all these small and complicated incentives and controls are needed mainly for offsetting the unfavorable effects of an overvalued currency. How much simpler it would be to do away with the overvaluation!

Another interpretation is that the system of overvalued currency-cum-quantitative restrictions tends to lead planners to emphasize foreign aid rather than exports. To quote Cohen: "The Indian government may not have considered an increase in export earnings as clearly beneficial... Government planners may have felt that a dramatic decline in India's foreign exchange reserves was a prerequisite for obtaining the Rs. 12 billion in

foreign assistance called for in the Second Five Year Plan. The planned level of exports was set slightly below the level actually attained during the First Plan period, and almost no export promotion policies were suggested in the Second Five Year Plan." 1/

A major and significant step towards the correction of currency overvaluation is the multiple exchange rate system. A common feature of this system on the export side is the "exchange retention scheme" or "export bonus scheme," whereby the exporter does not surrender his entire exchange earnings to the monetary authority at the official exchange rate, but is allowed to keep a certain proportion. He can either sell the retained portion on the free market at a higher exchange rate or use it for import purchases. One variation of the scheme is to issue exchange certificates for some portion of the exchange earnings to the exporter, who is in turn allowed to sell the certificates on the market. The importer who wants to import certain categories of commodities has to obtain the exchange certificate first in order to obtain the needed foreign exchange from the monetary authority. The exchange certificate commands a price on the market which fluctuates with demand and supply. The monetary authority can exercise control over the issue of the exchange certificate and smooth out any drastic fluctuations in its price.

Strictly speaking, the "favorable" treatment given to exports under this scheme is not a true "bonus" to exporters, if the effective exchange rate (weighted average of the official and market rates) is still below

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1/ Benjamin I. Cohen, "The Stagnation of Indian Exports, 1951," Quarterly Journal of Economics, November 1964, pp. 611-12

"the equilibrium rate." The so-called "bonus" is merely an offset to currency overvaluation and the degree of offset depends on the amount of "bonus" given. Nevertheless, this arrangement appears better than a "currency overvaluation-cum-quantitative restrictions" system. Generally, more favorable exchange rates are applied to minor and new exports, and less favorable rates to traditional exports. The underlying reason is that the traditional exports can compete well in world markets. Since their supply is rather inelastic, unfavorable exchange rates would not reduce much the output and exportable surplus. Meanwhile, the spread between the unfavorable exchange rates on such exports and the higher exchange rates on import gives rise to government revenue. But if this is the case, perhaps a combination of an "equilibrium exchange rate" with explicit export taxes on traditional exports would be better, for the export taxes can be tailored to the individual situations of the particular export commodities concerned (e.g., the particular elasticities of demand). Also, it can be made on a sliding-scale basis if world market prices fluctuate violently. The application of more favorable rates (than the overvalued official rate) to minor and new exports tends to stimulate export diversification. Of course, the actual results also depend on supply possibilities.

The Importance of a Realistic Exchange Rate

Admittedly it is difficult to determine the equilibrium exchange rate, for this depends on such numerous factors as the price levels of domestic and of internationally traded commodities, the level of employment, the wage level, the interest rate and its structure, tariffs, and the degree

of trade restrictions that prevail in the country in question and in its trading partners. This is not the place to undertake a theoretical discussion of the determination of the equilibrium exchange rate. In fact, the developing countries today are not so much interested in any equilibrium exchange rate as in a realistic rate which at least does not hamper, if it does not encourage, exports. In this connection Friedman has observed: "By and large, countries have been reluctant to judge the adequacy of their exchange rates by the criterion of 'equilibrium', i.e., whether the demand for exchange would be made equal to the supply without the governmental controls. Instead, there has been much more tendency to judge exchange rates by whether or not they are adequate to move exports." 1/

A realistic exchange rate would not only move existing exports but also make it possible for new exports to emerge, in agriculture as well as in manufactures. Thailand, for example, produced very little maize before 1956, but by 1962 had become the fifth largest exporter, with exports valued at $24 million.2/ Its maize export goes chiefly to Japan, where the dairy industry has developed rapidly. The fact that this export opportunity has been translated into a profitable domestic operation is due largely to the existence of a realistic exchange rate. Such an opportunity will be missed if the exchange rate is overvalued.

With suitable devaluation, governmental trade controls can probably be greatly reduced. With light trade controls, what constitutes a realistic

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1/ Irving S. Friedman, "Foreign Exchange Control and the Evolution of International Payments System," August 1958 (mimeographed), p. 18

2/ United Nations, Economic Survey of Asia and the Far East, 1963, p. 11, footnote 15

exchange rate depends, among other things, on the level of import duties and of export subsidies. Despite its vagueness the term "realistic exchange rate" suggests that the existence of such rate will reduce the need for some complicated export promotion measures and increase the effectiveness of others.

Some Positive Export Promotion Measures

Almost every developing country has adopted some sort of industrial policy to encourage industrialization. Apart from the measures relating to protection and priorities for obtaining import or exchange licenses for purchases of producer goods from abroad which we have discussed above, it includes tax concessions, low interest loans, priorities in allocating producer goods, establishment of industrial estates, etc. These general measures are normally applied to all industries whether producing for domestic markets or for exports. What we are interested in here are, however, those measures directly concerned with export promotion.

Import Duties Rebates and Export Subsidies: Duties on imported materials, parts and components tend to increase the cost of production of export commodities. A rebate of these duties will reduce the burden of export industries and increase their competitiveness abroad. Many developing countries are now using this device. However, a rebate of duties on imported materials may discourage the production of domestic materials if such potentiality exists in the economy. Thus, the advantage of promoting an export industry has to be weighed against the advantage of import substitution by other industries.

Often import substitution will lead to new exports.[1] After expanding to supply the domestic market, further expansion into the export market may enable producers of import substitutes to operate on a more economical scale at reduced average cost. Meanwhile, a successful period of learning can also result in an increase in efficiency. When such a stage of maturity is reached, a shift from protection against imports to subsidization for export may be in order.

Research: Export promotion efforts will be better directed or more pointed if external market possibilities and internal production possibilities can be identified. Research is extremely useful and will probably have to be undertaken by the government in developing countries.

The contribution of research to development in general and export promotion in particular may be illustrated by the vertical integration of sugar and its related industries in China (Taiwan). Sugar is a major export commodity of China (Taiwan); its exports are organized by Taiwan Sugar Company, the state trading agency. The Company also undertakes successful research to increase the yield of sugarcane and to shorten the crop-growing period. "It requires or encourages sugarcane farmers to raise pigs, making use of the waste of sugarcane for feed and the manure of pigs for fertilizers. It has set about improving the breed of pigs, and has established animal feed plant as well as workshops to process the ham and other products for export. Yeast, alcohol and monosodium glutamate are made from sugar molasses while bagasse boards and particle boards for construction and furniture are produced from sugarcane fiber, both for import substitution and for export.

1/ For instance, in China (Taiwan), India, South Korea, Pakistan and Thailand where the industries were established initially for import substitution, they have in many cases exported their products in fairly large quantities. See ibid., p. 46.

The Taiwan Sugar Company also manufactures insecticides and agricultural pesticides. As an ingredient in animal feed aureomycin is being produced from molasses. Research on by-products such as cane wax is also conducted by the Taiwan Sugar Experimentation Station. In addition, because of its interest in the development of Taiwan's east coast and in the utilization of available labor during the off-season for sugarcane milling, the company has chosen pineapple as a supplementary crop, promoted pineapple planting and established a pineapple cannery for export. Throughout the province, about one-tenth of the population obtain their livelihood either entirely or partially from the activities of the government-operated Taiwan Sugar Company." 1/ This successful case of economic development has depended greatly on research, its application to production through organization.

Both the Taiwan sugar and the Thailand maize examples suggest that possibilities of export diversification exist not only in manufacturing industry but also in agriculture. Once attention is directed towards export markets, there appear to be ample opportunities for exploitation.2/

Marketing: Ignorance about foreign markets, tastes and preferences of foreign consumers, marketing techniques, etc., are practical handicaps to successful export promotion by developing countries. Small volume of sales, lack of funds, and uncertainty and diffusion in the benefits of advertising are the main reasons why private businesses in developing countries are generally shy of aggressive marketing. In these matters also,

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1/ Ibid., p. 25

2/ Another example is Taiwan's export of French mushrooms. In China (Taiwan), production of French mushrooms in 1960 was negligible, but in 1963 export of canned French mushrooms reached $15 million, and that country became the world's largest exporters. Ibid., p. 11, footnote 15.

the government can often play an important role in assisting the private sector by providing information about foreign markets, by undertaking foreign market research, by providing training facilities, etc. The government may also take the lead in organizing private businesses for joint action in marketing abroad.[1/] All these measures tend to result in economies of scale in marketing.

Standardization and quality control are necessary steps in export promotion, without which foreign markets can be easily spoiled by products of uneven quality failing to meet buyers' specifications. In addition to strict controls and inspection, the government should also educate private businesses and encourage them to organize themselves and exercise voluntary controls.

Export Credit: In the developing countries, the financing of exports of primary products generally requires only short-term credit of less than six months. Such credit has traditionally been provided by the commercial banks. For those developing countries which are beginning to export manufactures and especially machinery and durable goods, such credit facilities are apparently inadequate, because the financing of manufactured exports generally requires longer term and more sophisticated arrangements. Competition in exports of manufactures, especially engineering products, on the world market is particularly severe, and in this competition the provision of export credit is an important element in addition to price and quality of the products. The developing countries are clearly in a disadvantageous

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1/ In this connection, India's scheme of export aid for small industries is worth noting. Ibid., p. 77.

position in the race, for they are newcomers in the field and they suffer from shortage of capital, high interest rates and lack of adequate financial institutions.

In order to encourage existing financial institutions, including commercial banks, to finance manufactured exports, refinancing facilities at reasonable terms should be provided either by the central bank, by an existing agency, or by a new national agency. This has been done in several developing countries. For instance, the Central Bank of Argentina introduced in 1962 a special arrangement for financing non-traditional exports by buying bills of exchange derived from these exports on terms of less than five years. Mexico in 1963 created a new agency, the Mexican Manufactured Products Export Development Fund, to provide rediscount facilities for bills ranging from six months to five years. India extended the scope of operation of the existing Refinance Corporation for Industry to take up refinancing of medium-term export credits, especially for engineering goods. In general, when the volume of manufactured exports becomes large and tends to increase continuously, the needs of export credit will also become voluminous, varied and continuous. This may be the time for creating a specialized export credit institution to coordinate existing activities, to mobilize financial resources for export finance, and to develop new instruments and methods of financing.

Risk Insurance: Another obstacle to exportation is the risk of non-payment by foreign customers. Risk insurance, which has become almost an integral part of export credit, strongly influences the availability and cost of export credit. This is particularly important for manufactured exports from the developing countries, for the credit involved is medium or long-term and the market catered to is usually new and unfamiliar. Commercial risks may take the form of protracted default on payments or insolvency

on the part of the buyer. These risks may not be heavy for traditional exports with established market and credit channels, but can be large for new exports. As commercial risks relate only to individual transactions, an insurance scheme on an actuarial basis may not be too difficult to establish. However, as this is a new field in the developing countries it may require the government or government-private joint action to initiate such insurance agencies.

Export credit is particularly susceptible to transfer risks. A delay or prevention of transfer of payments by the buyers may arise from exchange or import restrictions in an importing country. This affects all the exporters. Similarly, political risks resulting from war, revolutions, strikes, etc., in a given importing country also affect all exports. Some political risks may, however, affect only individual contracts, like default of payments or arbitrary cancellation of orders by foreign governments or foreign public corporations. Risks due to natural calamities like floods, earthquakes, or typhoons may be more diversified than pure political and transfer risks. Nevertheless, all these risks are difficult to insure on an actuarial basis, and hardly any private agency would venture into this kind of insurance business. In one way or another it has to be a government or an international undertaking.1/

Summary and Conclusions

Most developing countries today are confronted with the dual challenging tasks of how to grow faster and how to overcome their balance of payments difficulties. It is recognized that an increase in the inflow of external

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1/ For fuller account on the problems of export credit and insurance, see United Nations, World Economic Survey, 1963, pp. 265-271.

capital and a removal of international trade obstacles will contribute greatly to the accomplishment of these tasks. This paper, however, deals only with domestic policy with respect to import substitution and export promotion.

Import substitution and export diversification are important and integral parts of the growth process of developing countries. Through import substitution and export promotion, a developing country not only saves and earns more foreign exchange, but also broadens its production pattern, creates more employment, acquires new skills, etc. The concomitant development of resources tends to change the relative supply and prices of factors of production and consequently alters the comparative advantage position. Successful import substitution and export diversification will contribute substantially to the achievement of viable and self-generated growth.

However, as latecomers in industrialization and economic development, less developed countries are faced with many obstacles in the implementation of import substitution and export diversification, such as small size of the market, lack of basic economic facilities, lack of modern technology and skills, lack of modern business organization and marketing techniques, etc. One can therefore hardly expect them to compete outright with the older industrialized countries. The state must provide some support to the new, infant industries. If international payments were balanced, or if there were strong world demand for some of the country's exports, the problem of financing and fostering import substitution and export diversification would be relatively simple. For some years, however, exports of developing countries have been sluggish and their balances of payments have been weak. Thus, when starting to embark on development programs in the mid-1950's, many of them had already adopted trade and exchange restrictions to safeguard the

balance of payments. This complicates the choice of policies for effective import substitution and export promotion.

Policies for defending the balance of payments do not necessarily conflict with policies for effective import substitution and export promotion. Indeed, these two kinds of policies often move in the same direction. For instance, a tariff which protects domestic production also helps reduce balance of payments pressure. In some cases, however, policies designed chiefly for defending the balance of payments may not be the right policies for promoting exports or for protection in the long run. It is from this viewpoint that the various national policy measures are examined.

Many developing countries have resorted to quantitative restrictions to safeguard the balance of payments, while letting the exchange rate remain at an overvalued level. This has given strong incentives to domestic production for import substitution. While import quotas shelter the home market, relatively easy access to producer goods imported at the overvalued exchange rate provides cheap inputs. As the quotas allocated to various categories of imports are generally determined according to the principle of essentiality, usually the domestic production of non-essential goods receives the strongest protection irrespective of whether such production would be justified by the prospective, long-run comparative advantage. On the other hand, exports, particularly potential exports, are seriously discouraged by the overvalued exchange rate. Quantitative restrictions, while powerful in relieving the payments gap, in the long run seem incompatible with efficient import substitution or export diversification.

Many developing countries have adopted multiple exchange rate systems. The high rates usually applied to non-essential imports give domestic production of non-essential goods effective protection. The low rates applied

to producer goods simultaneously give domestic industries a kind of disguised subsidy. This system thus greatly stimulates import-substituting activities. On the export side, whether the effect is discouraging or encouraging depends on the specific exchange rates applied. Compared with quantitative restrictions, this system relies more on the price mechanism and less on administrative decisions, but its effects on the allocation of resources are still far from satisfactory.

In the initial stage of development, strong incentives must be needed to induce new ventures. Later, as the private sector shows more initiative, a review of the incentive measures is in order. Thus, in a country with an overvalued exchange rate and quantitative restrictions, serious questions should be asked. Are balance of payments difficulties chronic, and is a more basic solution needed? Would devaluation be feasible and helpful in alleviating balance of payments pressures, and thus reduce the need for quantitative restrictions? Of course not all quantitative restrictions have to be abolished at once. Those on luxury imports might still have to be maintained. Then corresponding excise taxes should be imposed to discourage domestic production of luxury goods. Once quantitative restrictions are relaxed, however, and the exchange rate is made realistic, the distortion of internal and external price relations can be corrected. Import substitution can proceed in a more orderly and economical manner and exports will not be particularly hampered.

In many developing countries where a straightforward devaluation was found not feasible, multiple exchange rates, or import or exchange surcharges on the import side, and/or exchange retention schemes on the export side, have been adopted as expedient devices. In such cases, when the exchange rates are finally unified in a single, more realistic rate, the disguised

taxes and subsidies created by the multiple rates should be reexamined and wherever desirable should be incorporated in subsidies, tariffs and other taxes. A realistic exchange rate is particularly important for export promotion, for many of the incentives offered to exports such as exchange bonus or other similar schemes are needed only to offset the adverse effects on exports arising out of an overvalued exchange rate.

Subsidies can be used to promote import substitution as well as export diversification. Owing to budget deficits, however, not many developing countries can afford to grant subsidies. In general, rebates of import duties on producer goods used in the export industries will help promote exports.

Many developing countries, particularly those with unified exchange rates, have begun to examine their tariff systems from the point of view of protection for import substitution. The level of tariff protection can be tailored to meet the specific situation of each individual industry. In setting up protective tariffs it should be borne in mind that the effective rate of protection is not the ad valorem tariff rate on the price of the product but the ad valorem rate on the value-added. The tariff structure should also contain some flexibility. As the economy grows, the process of import substitution can go deeper, from manufactured consumer goods to raw materials, semi-finished products or even capital goods. Sooner or later, a stage may be reached where tariffs on such intermediate goods as the country might eventually produce economically will have to be increased, while tariffs on light manufactured goods already close to economical production may have to be gradually reduced. The latter is particularly important, because many industries after succeeding in import substitution will be ready to export part of their production. Their efficiency must be further improved in order to compete in foreign markets. In this dynamic

approach to a tariff policy it is important to examine the individual industries carefully in deciding the tariff level and the time scheme for gradual reduction. A spread of high tariffs among all industries tend to push the costs of production of all industries higher.

In addition to trade and exchange policies, most developing countries also apply many other measures to assist industrialization, particularly tax concessions, accelerated depreciation, low interest credits, etc. Generally, industries that save and earn foreign exchange enjoy priorities in receiving these aids. The effects of these measures have to be weighed against the effects of trade and exchange measures. For instance, the positive effects derived from tax and other incentives may be largely offset by the negative effects of an overvalued exchange rate. Thus, one has to be concerned with the total net effect of all these measures as well as the interrelation between them. For example, in considering the height of a protective tariff for a particular industry, one has to take into consideration the other assistance received by that industry.

Export promotion presents a special problem because of competition on the world market. In this connection there is also need for government assistance in marketing, research, credit, insurance, etc.

The various controls, incentives and forms of assistance for import substitution and export promotion are usually offered separately by different ministries and agencies of the government as well as by the central bank. Usually there is no single organization to coordinate these measures. Clearly this power should be vested in the cabinet headed by the chief executive. But the head of the cabinet must be advised by some agency charged with making thorough studies and formulating proposals. The planning agency

appears to be in the best position to undertake these duties, which are closely related with plan implementation.[1/] Yet since many of these measures are the responsibility of the central bank, the finance ministry, or the ministry of trade, the agency charged with these duties should work closely with these agencies, or establish a joint working party to carry out the task.

1/ Cf. Albert Waterston, Development Planning: Lessons of Experience (Johns Hopkins Press, 1965), Chapter XI.

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IMPORT SUBSTITUTION AS AN INDUSTRIALIZATION STRATEGY: COMMENTS [1]

by

Shu-Chin Yang

I

I should like to discuss the subject in two steps: first, import substitution as a general strategy of industrialization and second, policy instruments for implementing the strategy. Let me make it clear on the outset that I see nothing wrong with import substitution as a strategy of industrialization, but I do think that an unwise choice of policy instruments for the implementation of import substitution can result in serious misallocation of resources.

As Professor John Power said in the beginning of his paper, import substitution "is almost an inevitable phenomenon in less developed countries" and "often it emerges in an apparently natural way..." Indeed, according to Chenery's cross-section statistical study of some fifty countries the higher the level of per capita income, the more rapid the increase in the proportion of value added by industry in the GNP and in the process of the rapid increase in industrial (mainly manufacturing) activity, import substitution plays a very important role--"since it accounts for 50 percent of industrialization."[2] However, to say import substitution is important in the industrialization process does not mean that it has to be invariably a highly protected process. It can also be a natural process.

1/ The paper expresses the personal views of the author and does not necessarily reflect those of the International Bank for Reconstruction and Development, with which he is presently associated.

2/ H. B. Chenery, "Patterns of Industrial Growth," American Economic Review, September 1960, p. 641

Reed J. Irvine cited the example of Japan which is quite revealing:

> "One of the most dramatic examples of the process is seen in the changing trade pattern of Japan in the last three decades of the 19th century. Finished goods as a proportion of total Japanese imports fell from over 50 percent in the 1870s to about 30 percent in the closing five years of the century. During the same period imports of raw materials rose from a mere 4 percent of the total to nearly 27 percent. This dramatic change in the import pattern illustrates the fact that the process of import substitution can take place in the absence of protectionist governmental policies designed to bring it about. This is particularly clear in the case of Japan, because Japan had signed treaties with European countries and the United States which obliged her to pursue a policy of free trade and not impose protective tariffs or other restrictions on imports from abroad. The first revision of these treaties which permitted protective duties was not made until 1899, and Japan did not obtain a completely free hand in her tariff policy until 1911. By that time Japan's emergence as a significant producer of manufactured goods for both the domestic and export markets was already well underway."1/

The success of a natural process of import substitution depends on many favorable factors. First, there must be some momentum of growth gained inside the economy or some conscious efforts made in the development of human, natural and financial resources. This would mean that there are entrepreneurs seeking investment opportunities, laborers learning new skills, government providing infrastructure and favorable institutional framework or even undertaking to explore natural resources or initiate industries. In other words, there are changes in supplies and relative prices of factors of production which cause changes in comparative advantage of the economy and lead to a natural course of import substitution.

1/ Reed J. Irvine, "A Central Banking Approach to Problems of Import Substitution," Annals of the Seventh Meeting of the Central Bank Technicians of the American Continent, Volume I (Bank of Brazil, 1964)

This is quite in harmony with Chenery's findings too. "These results contradict the usual assumption that changes in the composition of demand are the main cause of industrial growth. If a country has an increase in income with no change in comparative advantage, the analysis suggests that only about a third of the normal amount of industrialization will take place. Changes in supply conditions, resulting from a change in relative factor costs as income rises, cause a substitution of domestic production for imports and, to a lesser extent, of factory goods for handicraft goods and services. These supply changes are more important in explaining the growth of industry than are the changes in demand."[1/]

Secondly, the success of a natural process of import substitution also depends on the satisfactory development of the export trade. If a country's export earnings are stagnant or declining, and the balance of payments is in trouble, there are bound to be some trade and exchange restrictions. Such restrictions will necessarily exercise protection for import substitution.

Thirdly, a continuous expansion of import substituting industries depends on the expansion of domestic market. And the expansion of domestic market depends greatly on the extent of agricultural development. A satisfactory rate of increase in agricultural productivity and rural real income has a long way to go to provide real purchasing power and markets for domestic industries.

1/ Chenery, ibid., p. 644. And this is also what the orthodox economists' answer to protectionists. To them if there is market imperfection or structural rigidities, the remedy lies with improvement of factoral mobility, such as land reform, education, training of labor, the development of capital markets, etc., not with a widespread and high protection.

If a developing country is fortunate enough and hardworking enough to have all these three conditions, import substitution can proceed naturally and successfully; it would be a balanced development and not a bias process. I think one would not object to this kind of import substitution; but one would be concerned with a "distorted pattern of import substitution" which I take it is what Professor Power means by "import substitution bias."

II

Would it be possible for the developing countries today to follow a natural course of import substitution? Apparently, the answer is: if it is not impossible, at least it will be difficult and time-consuming. For one thing it is difficult to do so because export trade of most of them is not growing satisfactorily, their balance of payments is in trouble and there exists a great variety of trade and exchange restrictions. These restrictions mingled together with other measures designed chiefly for the protection purpose add up a complicated picture. And here we have the problem of what should be the desirable policy instruments for the implementation of import substitution strategy.

Because of the intermingling of balance of payments measures and protection measures, when one tries to disentangle the protection and import substitution problem, one has to look at the "total rate" of protection arising out of all these measures as Professor Power does. And which amounts to the same thing as "total effects" which I used in my paper on a similar subject presented to a U.N. seminar in September last year.1/

1/ Shu-Chin Yang, "National Policies for Import Substitution and Export Promotion," a paper presented to the United Nations First Inter-regional Seminar on Development Planning, Ankara, Turkey, 6-17 September 1965

I agree with Professor Power's analysis of the effects of a system of import restrictions coupled with undervalued foreign exchange. The resulting misallocation of resources or economic inefficiency under this system is obvious. In countries where this problem is so serious and foreign exchange so artificially undervalued as to upset all economic and business calculation, there is much to say about the need for a reexamination of the adequacy of the exchange rate. One point I like to emphasize in this connection is that the undervaluation of foreign exchange tends to penalize the export sector, the development of which is important to the furtherance of successful import substitution. With an overvalued currency, all those so-called export promotion measures such as export bonus scheme, etc., are only offsets (and not even complete offsets) to the disincentive given by the exchange undervaluation.

Professor Power has presented a very interesting analysis of the terms of trade argument in the justification of protection. He has also demonstrated neatly the interindustry distortions caused by a distorted pattern of protection. From these analyses he argues the appropriate rate of protection is a uniform rate for all industries. This would mean a dual exchange rate system. But since usually only one or a few primary exports which weigh heavily in the total exports of many developing countries and which have relatively low elasticity of demand, the same purpose or the same effects can be achieved by a somewhat different means. An alternative would be a uniform exchange rate (which corrects the undervaluation of foreign exchange) coupled with some sort of export taxes on the few traditional exports. Moreover, the rates of export taxes can be made flexible in accordance with changes in world market prices. (Of course,

supply restrictions on such exports can also be accomplished by international agreements.) Professor Power seems worried that this device may induce retaliation. One would wonder whether he is over-worried, because in this case the export commodities concerned in the import trade of the major importing country may not be large and it may not be worth for the government of the importing country to take retaliation measures for just one or two commodities. What I am worried about, however, is that the higher prices of the export commodities may stimulate further substitution in the importing countries. Thus export taxes if imposed should be carefully determined not to be so high as to stimulate substitution.

Professor Power seems in favor of using selective subsidies to promote import substitution, because (1) subsidies would not distort the price structure, (2) selection can be made on the criteria of genuine "infant industries" and (3) concentration of encouragement tends to lead to more rapid growth. With all the merits of subsidies, the question still remains where the finance will come from. Following the same argument, in order not to distort the price structure, the finance should come from the revenue of direct taxes. While this appears to be ideal, it is doubtful whether this would be feasible, because it is exactly where lies the familiar story of difficulties in obtaining more revenue out of direct taxation in less developing countries. If the finance has to come largely from indirect taxes, then first of all the price structure will be distorted, and secondly as import duties are most likely one of the most important indirect taxes, they cannot escape from being chosen. Considering all this, I would stress one statement of Professor Power's: "import duties were the least inefficient method of taxation available to the government" (p. 17).

The choice--perhaps the second best--seems to be a combination of (1) a correction of exchange undervaluation, (2) a relaxation of import restrictions, (3) an imposition of some export taxes on traditional exports, and (4) the application of selective tariff protection. The selective tariff structure should be so designed as not to give excess protection to consumer goods industries at the expense of intermediate goods industries. The selection should base on the principle of prospective comparative advantage and "infant industry." It is the overprotection and distorted pattern of protection which we are all against. It is hoped that under this system of policy instruments, import substitution will proceed more efficiently and the development of the export and agricultural sectors will not be hampered. If further efforts can be made in the improvement of agricultural productivity and in the export trade, import substitution can have a long way to go.

III

I feel a little bit uneasy about the argument that import substitution tends to have the effect of "consumption liberalization." Professor Power also said: "one cannot be sure how important this was (in Pakistan)." (p. 26). My doubts arise on two counts. First, if protection has raised the costs and prices of import substitutes to higher levels, consumption should be reduced rather than increased.

It may be argued that if consumption is restricted by import controls and now because of import substitution, more home substitutes become available which makes more consumption possible. And Mr. Khan has proved it by the case of cotton cloth, sugar, cigarettes and paper. So far as the individual controlled commodities are concerned, this supply-side-only

argument may be correct. But what is true with these individual cases may not be so for the economy as a whole. First of all, whether import controls can reduce consumption rate at all is doubtful. Let us remember the demand side. When import controls are imposed whether consumption as a whole will reduce or not depends on what people will do with that part of their income which they previously spent on imported consumption goods. It is quite possible to assume what can no longer be spent on consumer goods is spent entirely on domestic consumer goods and services, not necessarily those which are close substitutes of imports. This argument was very well presented by Nurkse.[1/] Unless the whole economy is centrally planned, the "supply-side-only" argument seems not a sufficient proof that consumption can be reduced by import controls. If the aggregate consumption has not been restricted, then there is no sense of talking about "consumption liberalization."

I have the impression that when Mr. Khan says "consumption liberalization" he has a special reference to a sort of planned consumption and planned saving. But a failure to achieve planned saving rate can be accounted for by many factors. For instance, it may be due to the fact that the target of the saving rate was set too high or that measures of achieving higher saving rate such as taxation, improvement of financial institutions, were unsuccessful. "Consumption liberalization" arising out of import substitution, assuming it is possible, may not be the main reason. After all, import restrictions are not supposed to be an effective means of containing aggregate consumption.

1/ Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries, (Oxford, 1958); pp. 109-116

A minor question about another study on Pakistan's import substitution. In measuring the rate of protection, Soligo and Stern used world prices of the products concerned as a base. I wonder whether these are the landed costs in Pakistan ports or world prices in world trading centers. The differences could be the transportation and insurance costs which can be proportionally very substantial in the cases of beverages and furniture. I am a little surprised that Soligo and Stern have found the production of beverages and furniture in Pakistan was uneconomical compared with world prices (p. 19). Usually this kind of heavy weight-added industries is protected by the high proportion of transportation costs.

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IMPORT SUBSTITUTION

NATIONAL POLICIES FOR IMPORT SUBSTITUTION

Shu-Chin Yang

[Policies for promoting import substitution—quantitative import restrictions, overvalued currency, multiple exchange rates, tariffs and subsidies, tax incentives, etc. —must be looked at to see if they make any collective sense, in terms of balance of payments and export-promotion goals as well as that of import substitution.]

Most developing countries today are confronted with the dual challenge of how to grow faster and how to overcome their balance of payments difficulties. An increase in the flow of external capital will be of great help. But it cannot be the final answer, for external loans must eventually be serviced and amortized—in other words, be paid back by goods and services. A more basic solution lies therefore in trade.

Successful import substitution and export diversification contribute substantially to the achievement of viable and self-generated growth. Through them, a developing country not only saves and earns more foreign exchange, but also broadens its production pattern, creates more employment, acquires new skills, etc. The concomitant development of resources tends to change the relative supply and prices of factors of production and, consequently, alters the comparative advantage position.

However, as latecomers in industrialization and economic development, less developed countries are faced with problems such as small size of the market,

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lack of basic economic facilities, lack of modern business organization and marketing techniques, etc. One can hardly expect them to compete outright with the older industrialized countries. The state must provide some support for new, infant industries.

If international payments were balanced, or if there were strong world demand for some of their exports, the problem of financing and fostering import substitution and export diversification would be relatively simple. For some years, however, exports of developing countries have been sluggish and their balances of payments weak. As a result, by the mid-1950s many of them had adopted trade and exchange restrictions to safeguard the balance of payments.

Such policies do not necessarily conflict with those for effective import substitution and export promotion. Indeed, they often move in the same direction. In some cases, however, policies designed chiefly for defending the balance of payments may not be right for promoting exports or for protection in the long run. It is from this viewpoint that the various national policy measures must be examined. The question is not how to justify protection and controls, but, rather, whether the measures being adopted make any collective sense. The answer cannot be simple, for many countries have adopted two, three, or even more kinds of controls—tariffs, subsidies, import surcharges, multiple exchange rates, quantitative restrictions, tax and credit incentives, etc. Some aspects of these measures relate primarily to import substitution, others to export promotion. Only the former will be considered here. [See DEVELOPMENT DIGEST, July 1967, for Mr. Yang's discussion of policies for export promotion.]

Quantitative Import Restrictions

One of the most common types of trade and exchange systems in developing countries has been a combination of an overvalued currency with quantitative import restrictions imposed primarily for the purpose of safeguarding the balance of payments. Since many developing countries today are experiencing slow growth of their traditional exports, they cannot do away with such restrictions.

What are the implications of quantitative restrictions for import substitution? Once quantitative restrictions are imposed on imports, prices of imported commodities in domestic markets tend to rise immediately. Price (and quality) competition is shut off. Prices and production of domestic substitutes tend to increase, too. The increased domestic production fills the existing supply gap as well as the growing gap caused by rising income. Such a system of encouraging import substitution is not always a blessing, however.

First, the pattern of restrictions is determined predominantly by balance of payments and cost of living considerations. Thus, less essential consumer goods and luxuries are usually more severely restricted than other commodities. Domestic production of such commodities, then, receives correspondingly higher protection and more resources are attracted to their production. For example, during 1955-62 output of domestic refrigerators and room air conditioners in India and the Philippines increased much faster than output of producer goods, such as caustic soda and cement, in the Philippines, and sulphuric acid and steel, in India. These developments have not corresponded to comparative advantage, and many developing countries have tried to correct the distortion in resource allocation by imposing excise taxes on the domestic production of socially less desirable goods.

Second, imports of capital and producer goods are usually given favored treatment. This encourages the use of imported inputs and discourages import substitution of raw materials, semi-finished products, or capital goods. Imported capital and producer goods are purchased at the overvalued official rate and are, therefore, cheap in terms of local currency to the users who can obtain import licenses. The fewer domestic inputs used, the more profit import-replacing industries can make. This is why the packaging and labeling—the "finish-touch"—industries, are flourishing in many developing countries under the quantitative restrictions system.

Industrialization in this form becomes rather superficial and lacks depth. Also, since imported capital goods are cheap, adoption of capital-intensive production techniques is encouraged even though labor is the abundant factor in the economy. Meanwhile, as imports of capital and producer goods are stimulated, the pressures on foreign exchange mount. Then more restrictions are needed on imports of non-essential goods; this further accentuates the distortion in resource allocation.

Third, as the import-substituting industries grow fast and the total availability of foreign exchange is limited, even the demand for the preferred imports of capital and producer goods cannot be fully satisfied. Moreover, cumbersome procedures in administering import licenses introduce delay, while favoritism and corruption prevent imports from flowing directly to the end users. The resultant shortage of imported materials and spare parts tends to cause many plants of the new industries to operate far below capacity. A substantial part of capital equipment invested becomes idle and wasted, the average cost is higher, and the output smaller.

Fourth, the application of quantitative restrictions tends to result in windfall profits to the favored importers. There is hardly any

incentive for improving efficiency of production under quantitative protection, for competition from abroad is limited by administrative decision. Price and quality are generally not determinants in setting import quotas. No matter how high the domestic market price, how poor the quality of domestic products, no more imports than the quotas are permitted. Higher prices mean, of course, welfare sacrifices on the part of the consumer. If this sacrifice can be compensated by future price reductions and increases in employment and real income, it may be justified as a necessary transitional state. But, it appears uncertain that this course will follow under the control system.

Fifth, closely related to the general inefficiency of the import-substituting industries is the penalty to the export sector. The fast-growing import-substituting industries tend to draw material, financial, and labor resources away from this sector. Where export industries use products of some import-substituting industries as their inputs, the high prices of such products also push up the cost of producing the exports. Such upward pressure on the cost structure can do much damage to the country's ability to earn foreign exchange, especially if accompanied by inflation.

The question is not whether or not to abolish quantitative restrictions entirely and return to free trade. Rather, it is whether some other combination of exchange and trade policies can do the job better. For instance, a downward adjustment of the exchange rate would reduce the need for quantitative restrictions and meanwhile restore the export sector to the position it deserves. Import duties can be adjusted to suit more specifically the purpose of protection and allow a reasonable amount of foreign competition. Even with all these changes, balance in international payments may still be unobtainable and quantitative restrictions may still be needed—but to a much lesser extent. They may still have to be used to curb imports of luxury consumption goods (in combination with corresponding excise taxes to discourage domestic production of similar goods) or as a protective device to prevent market disruption or countervail dumping. But they should be used only on a limited, selected basis.

Multiple Exchange Rates

Nevertheless, a country may not want to devalue its currency for a variety of reasons, including fear of inflation and loss of confidence in the currency. Multiple exchange rates, under which higher rates are generally applied to less essential imports than to basic food and capital goods, are a welcome compromise. This reduces greatly the pressure on demand for imports compared to a system of quantitative restrictions and siphons off at least part of the windfall import

profits. Many countries also use some quantitative restrictions in combination with multiple exchange rates, but the severity of such restrictions is much less. Low exchange rates are usually applied to traditional exports, because it is often found that such commodities can still be exported even under penalty exchange rates, and their supply appears to be rather price inelastic. Other minor, and particularly new, exports are usually "encouraged" by a higher exchange rate.

Thus, a partial devaluation becomes a substitute for across-the-board devaluation and straightforward quantitative restrictions. It significantly shifts the burden of defending the balance of payments and protecting domestic products from administrative controls to the price mechanism. Furthermore, by using stratified exchange rates, the government is generally able to circumvent the difficulties that tariff adjustment may raise with regard to internal legislation and external commitments under the General Agreement on Tariffs and Trade (GATT).

Insofar as the imports corresponding to the different exchange rates are classified on the principle of essentiality, the multiple-exchange-rate system, like quantitative restrictions, distorts the pattern of investment and encourages domestic production of the less essential commodities protected by the higher exchange rates (unless corresponding excise taxes can be imposed). This is not necessarily in accordance with prospective comparative advantage in the sense that, given a reasonable period of time, the industries would become efficient producers.

A more rational system of protection might require a large number of rates, each applicable to a few industries. But this may become impossible to administer. Each interested group will press for a more favorable exchange rate, or urge for a reclassification of the commodity concerned to a more favorable category. If exchange rates are multiplied to suit individual industries, then protective tariffs would be a better choice.

In spite of these deficiencies, the multiple-exchange-rate system has advantages over the system of currency overvaluation-cum-quantitative restrictions. First of all, it relies more on the price mechanism through disguised taxes and subsidies. Although the commodity grouping still requires some administrative decision, the reliance on arbitrary import quotas is greatly reduced. It challenges the adequacy of the official exchange rate and actually moves the "average" rate to a more realistic level. In case the average effective import rate is higher than the average effective export rate, the difference, representing a sort of taxation on international transactions, yields revenue to the government or

exchange profits to the monetary authority—which is a disinflationary factor. In many cases, a floating exchange rate is allowed to exist together with other rates, which helps to some extent the adjustments of demand and supply in the various balance of payments items. It also helps in finding a realistic level of the exchange rate. Thus, a multiple-exchange-rate system, if not complicated in structure and difficult to administer, can be an expedient transitional device toward eventual devaluation and unification of exchange rates. It should, however, not be a permanent system.

Exchange and import surcharges are akin to multiple rates. Exchange surcharges are usually applied to foreign exchange sold by the central bank for various kinds of external payments. Import surcharges usually take the form of different rates of ad valorem duties imposed over and above the regular import duties on broad categories of goods. The system is equivalent to multiple exchange rates applied only to the merchandise import side, not on exports and invisibles. Its effects on imports and domestic investment and production, and its administrative problems, are similar to those of a multiple-exchange-rate system.

Tariffs and Subsidies

A growing number of developing countries are moving away from quantitative restrictions toward multiple exchange rates and from multiple exchange rates toward a devalued unified exchange rate. They have, therefore, felt the need for relying more and more on tariffs for trade and development purposes and have begun to revise their tariff systems. But one cannot discuss an adequate level of tariff protection without looking also into other related measures. If the currency is overvalued, for example, the tariff would lose part of its power of protection. On the other hand, if quantitative restrictions are used, the need for tariff protection would be less. Thus, if the currency is overvalued by 20 percent, a 35 percent ad valorem tariff will only leave 15 percent net protection. But if, at the same time, quantitative import restrictions are also applied, and the domestic market price of the imported commodity in question is 25 percent higher than without the restriction, the net protection would be 40 percent. Excise taxes, if there are any, should be considered as negative factors. Thus, the level of protection is generally determined by the apparent tariff rate, plus or minus effective currency under- or overvaluation, plus the extent of a domestic price rise due to quantitative restrictions, and minus the excise tax rate.

It would be useful to mention briefly some of the basic reasons supporting the policy of tariff protection, for these reasons have a bearing on the choice of policy measures:

Structural rigidities. True long-run comparative advantage has not been realized in the developing countries, according to one school of thought, because of structural rigidities manifested in factor immobility.

Thus, it has been argued by orthodox economists that, since the troubles are deep-rooted, the remedy logically lies with improvement of factoral mobility, such as land reform, education, training of labor, the development of capital markets, etc., rather than interference with foreign trade. Advocates of protectionism think such a remedy, while needed, would take too long to yield results. The real issue, however, is the choice of policy measures: tariffs vs. subsidies for the purpose of promoting import substitution. Orthodox economists prefer subsidies because they keep prices at competitive levels and do not distort price relations and consumption and investment decisions. In practice, however, few developing countries find it possible to organize subsidies in any substantial way to facilitate import substitution.

An effective program of subsidizing import substitution would require a large amount of public finance. Where would the funds come from? Internal taxation is exactly one of the fields where developing countries find it difficult to move ahead. In contrast, it is comparatively easy to tax imports. Thus we come back again to the question of tariff protection. Granted that import duties may have the side effects of some price distortion and misallocation of resources, but insofar as protective tariffs can be reduced and, eventually, removed as industries mature, such effects would only be transitional in character. They are not the optimum solution; but they are the second best and most feasible policy measure to adopt. Petroleum exporting countries, where ample financial resources are available and foreign exchange is not scarce, may present a special case. Here it may be desirable and feasible to use subsidies to encourage the development of import-substitution industries.

External economies. Another school of thought emphasizes that current costs and prices are unsatisfactory indicators of long-run comparative advantage because, if external economies can be realized in the future, the cost-price structure will change and so will future comparative advantage. Possible external economies include increased availability of economic overhead facilities or economic infrastructure; benefits of the learning process required for management, labor, marketing, methods of production, etc.; and the advantages of balanced growth and the interindustry relation. In order to bring out such external economies, protection is needed during the transitional period.

This line of thinking raises further policy questions with respect to protection. It is argued that external economies can be realized easily if a constellation of industries develops simultaneously. This would enable the transmission of external economies both horizontally and vertically throughout the whole industrial structure. Hence, the infant manufacturing sector as a whole must be protected instead of just isolated infant industries. This argument is reinforced by the existence of factoral immobility, for a general protection of the manufacturing sector tends to attract more underemployed labor from agriculture than isolated protection.

To make the protection of the whole manufacturing sector effective, it has been suggested that a uniform ad valorem tariff be imposed on all manufactured imports, leaving the selection of individual industries to market forces, or that a system of dual exchange rates be introduced. This would eliminate the need for government to decide what industries are eligible for protection.

If a uniform ad valorem tariff on all manufactured imports is superimposed on the existing tariff regime, it would mean an import surcharge on manufactures. This measure would have the effect of reducing import expenditures. It would tend to give higher protection to those industries whose competing imports are price elastic in demand than to those whose competing imports are price inelastic. This may not be in conformity with comparative advantage. However, an underdeveloped economy that relies heavily on a few primary exports and is in the initial stage of development has no way of identifying those manufactures that have a potential comparative advantage. Adoption of uniform protection may be helpful in inducing initial diversification, with the choice of industries suitable for individual protection left to a later stage. But for those countries where import or exchange surcharges, or multiple exchange rates, or quantitative restrictions are already in force, and some industries have been established, there should be some clues as to the suitable pattern of industrial development. In such cases, specific protection may be considered.

Aspects of Tariff Protection

We have just touched upon the question of general vs. selective protection of manufacturing. Other important questions are how to define the degree of tariff protection, what should be its appropriate level, and how long it should last.

It is very important to distinguish the apparent rate of protection from the effective rate of protection. The apparent rate of protection is the ad valorem tariff rate on the price of the product of the

industry, while the effective rate of protection is the ad valorem tariff on the "value added" per unit of output of the industry. Since the industry's direct contribution to the economy is represented by its "value added," the effective tariff rate represents the real protection. For example, if the apparent tariff rate on cotton cloth is 30 percent, and the cotton weaving industry added 40 percent to the end products, the effective tariff protection of the industry is 0.3 divided by 0.4 equalling 0.75, or 75 percent.

Thus, with the same rate of apparent tariff, the effective rate of protection can differ among industries, depending on the differences in the proportion of value added. If there are no tariffs on imported inputs, the lower the percentage of value added, the higher will be the effective protection of the industry. If imported inputs are also taxed and if industry cannot change further its proportion of value added or raise the price of its output, then the effective rate of protection is reduced, and for the economy as a whole protection becomes more widely and evenly distributed.

If the country's resource endowment is such that certain raw materials or semi-finished products cannot be produced at all, zero tariffs on such inputs would not hamper domestic production of their substitutes. But if there are ample possibilities of producing such intermediate products at home, and if the end-product industries have progressed to the point where they can survive low effective protection, an imposition of tariffs on those inputs tends to extend the process of import substitution to semi-finished goods, raw materials, or even to capital goods.

Sooner or later, a stage may be reached where tariffs on such intermediate goods as the country might eventually produce economically will have to be increased—India has already raised her tariffs on machinery, for example—while tariffs on light manufactured goods already close to economical production may have to be gradually reduced. The latter is particularly important, because many industries after succeeding in import substitution will be ready to export part of their production. Their efficiency must be further improved in order to compete in foreign markets. In this dynamic approach to a tariff policy, it is important to examine the individual industries carefully in deciding the tariff level and the time scheme for gradual reduction. A spread of high tariffs among all industries tends to push up all costs of production. The success of this policy depends greatly on the intelligent selection of the right industries at the right time.

There is obviously no a priori way to determine the absolute suitable level of tariff protection. In general, a tariff wall should not be so high as to push the cost structure of the economy up so as to

damage its ability to export and to lessen its prospects of eventually lowering the tariff wall. It may be argued that broad protection would permit a cluster of industries to become established, forming each other's market. But this neglects the "cost-push effect" on the supply side. If extensive tariff protection is given, it is likely to raise costs through the input and output linkages in the entire economy. A high tariff on chemical fertilizer, though protecting the domestic chemical fertilizer industry, will, for example, increase the cost of agricultural production. Consequently, exports of agricultural products may be hampered.

In addition to working through input-output links, cost-push effect also operates at the factor level. If protection is provided to a wide range of industries, capital and labor will be absorbed by these sheltered industries and withheld from alternative fields of production. The export manufacturing industries will be the first to be adversely affected, for they use kinds of labor and financial sources similar to those used by import-substitution industries. In the initial stage of import substitution, the "resource-shift" and "cost-push" effects may not be felt. But after some progress in industrialization, when domestic markets are gradually filled and industries start to look for overseas markets, the high cost structure will clearly become an obstacle. The pressure of high costs tends to be particularly heavy if inflation prevails.

The period of protection is closely related to the degree of protection. It is justifiable to draw resources from other sectors of the economy to aid infant industries only if the protection is transitional; it is not justifiable if prolonged indefinitely. Persistent protection tends to perpetuate the use of more domestic resources per unit of dollar for saving foreign exchange than that for earning foreign exchange. This is wasteful resource allocation. Before protection is granted, therefore, it is advisable that a thorough study be made of present and prospective costs, prices, quality of products, markets, and management of the particular industry, its relation with other industries, as well as similar information on competing industries abroad. Such information is necessary to determine the height and duration of the tariff. A time schedule for reducing the tariff by stages should also be agreed upon with the industry, so as to force it to improve its efficiency gradually.

Fiscal and Monetary Measures

In most developing countries, specific fiscal and monetary measures have also been adopted for inducing industrialization. The most common are tax incentives and easy credit. Usually exemptions from import duties on machinery and raw materials used by

the industries, from a business tax, or from the corporate income tax, etc., are given for specific periods. Liberal depreciation allowances, carrying over into subsequent years in case of losses in the current year, are also generally offered. When there is credit control in developing countries, usually the monetary authorities permit, or even support, a more liberal extension of credit by commercial banks to import-substituting and export industries. Sometimes rediscount and refinance facilities at low interest rates are offered.

The effects of these measures have to be weighed against the effects of trade and exchange measures. For instance, the positive effects derived from tax and other incentives may be largely offset by the negative effects of an overvalued exchange rate. While these measures have not been dealt with in detail in this paper, their effects should be borne in mind. It is the "total effect" of all these protective and incentive measures in the fields of trade, exchange, credit, taxation, etc., which matters in considering the total level of protection.

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PROBLEMS OF IMPORT SUBSTITUTION: THE CHILEAN AUTOMOBILE INDUSTRY

Leland L. Johnson

[The Chilean automobile industry in the 1960s shows how import substitution can create more problems than it solves—especially when carried out too fast and without due consideration of economic realities. The experience is all too familiar in many other nations, too.]

Chile's experience in promoting a domestic automobile industry is an interesting case study of 1) the pitfalls of attempting to combine conflicting economic and political objectives in designing import substitution programs; 2) the role that foreign exchange control can play in maintaining a chronic misallocation of resources in the industry; and 3) the manner in which general price inflation can further contribute to poor industry performance.

In the early 1960s, the Chilean government decided to prohibit import of fully assembled passenger cars and allow only components in. Under a "national integration" program, assemblers were obliged to use increasingly large proportions of Chilean-made components as substitutes for imports—a minimum of 27 percent in 1964, 32 percent in 1965, and 45 percent in 1966.

Furthermoré, for both political and economic reasons, automobile assemblers were induced to build in Arica, a Pacific coast city only a few miles south of the Peruvian border. Inhabitants of this relatively isolated area frequently charge that their interests are neglected by the central government, located 1,000 miles away in Santiago, and they have from time to time threatened to secede and join Peru. Since the

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