ABSTRACT

INTERNATIONAL TRADE: ITS RELEVANCE TO LESS DEVELOPED COUNTRIES

Giuseppe Lepore
Department of Economics and Political Science
Master of Arts

This study appraises the traditional view that free trade is the best policy that the less developed countries could adopt in order to stimulate their development. It examines the original case for free trade as well as the criticisms which have been advanced on the theoretical level and with respect to the actual role played by international trade in economic development.

Since the debate on these issues is far from being over, no definite conclusions were reached. It was found nevertheless that most economists have come to recognize special circumstances in the case of developing economies. As a consequence, they have come to believe that the role of trade as an agent of development should be considered in the light of the particular situations of individual countries, rather than attempting to apply given principles or policies to all situations.

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by

Giuseppe Lepore

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Department of Economics and Political Science,
McGill University,
Montreal, Quebec, Canada.

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

Introduction

One of the most pressing and controversial policy issues facing underdeveloped countries is the choice between international specialization as dictated by the theory of comparative advantage and the desire to stimulate industrialization, possibly by detailed planning and protection of the home market against the competition of the manufactured products from industrial countries. In favor of the first alternative there is the traditional view, derived from classical economic thought, that specialization along the lines of comparative advantage will provide the most efficient allocation of world resources. The subsequent international exchange would result in a net gain for all the participating countries, hence providing a stimulus to growth and development. The supporters of this view point to examples where intense trade activity has positively contributed to the development of the now economically developed countries. Examples can be found in the cases of Britain at the outset of the industrial revolution, of North America and Australia in the nineteenth century, and of Japan in the twentieth. In these and many other cases international commerce gave a conspicuous momentum to the economy of these countries. International trade helped the newer countries to exploit their reserves of natural resources and liberated them from the

limitations of their domestic markets. At the same time it provided the older countries with sources of cheap raw materials and foodstuffs, enabling them to devote their resources to the development of industry.

Economic theory puts this process in a logical framework. As traditionally advanced, economic theory leads to the conclusion that, given certain specified conditions, free international trade and foreign investment are likely to result in mutual gain for both the advanced and the underdeveloped countries and, therefore, lead to the economic development of poor countries. Trade provides markets for primary commodities which form the bulk of the exports of poor countries and in which their international competitive position is strong. The export revenue can be used in part to finance the imports of capital equipment needed to increase productivity in agriculture and industry. International trade also plays a useful role in the process of domestic industrialization, since competitive pressures from the world market tend to force down domestic prices and costs; this ensures that domestic resources are not devoted to production of wasteful high-cost products which can easily be obtained from abroad. Similarly, according to the traditional view, foreign investment will tend to flow into areas where capital is relatively scarce and has a high marginal product because this relative shortage will provide the foreign investor with a higher rate of return than he can secure at home. This flow of investment into the

developing areas will contribute to the achievement of an optimum distribution of resources for the world economy and will mean an increase in the combined national incomes of the countries involved. Trade and investment, moreover, will benefit the developing countries by giving them access to the advanced technology, essential capital equipment, and financial resources of the advanced countries. The net effect of trade and investment, then, is to substantially accelerate the rate at which the developing countries can grow by providing additional resources and by the stimulus of the world market on the domestic economy.

Most economists would agree that international trade has played precisely this role in the development of the present-day advanced countries. Indeed for many this development is associated with their substantial engagement in foreign trade. There is little agreement, however, with respect to the precise role which foreign trade has played and is likely to play in the development of the present-day underdeveloped countries. There is considerable dissent with the traditional view.

Dissenters with the traditional view have existed all along. In the latter part of the 18th century, the views of Alexander Hamilton led to a reorientation of American economic policy towards industrial protectionism and his ideas have served as a storehouse of arguments for American protective policy ever since.[1]

[1] A. Hamilton, Report on Manufacturers (1791). Reprinted in Selected Readings in International Trade and Tariff Problems, F.W. Taussig ed.; (Boston: Ginn & Co., 1921).

Hamilton argued that since it was becoming increasingly difficult to sell the growing surplus of American agricultural produce abroad, a fact which he attributed to restrictive foreign regulations, encouragement should be given to the expansion of home demand by stimulating domestic manufacturing by protecting it from foreign competition. He refused to concede that at home agriculture was more productive than manufacturing industry. According to him, the latter gave more opportunity for division of labor and the use of machinery, offered more scope for diversity of talents and dispositions, attracted foreign labor and capital and created a stable market for the products of domestic agriculture. He insisted that the independence of the American nation demanded that it should produce at home the essential national requirements, such as food, shelter, clothing, and the means of defence.

The views of Hamilton and the American policy influenced Friedrich List and prompted him to develop a theory of protection applicable to a predominantly agrarian economy such as Germany was at that time.[1] List saw a nation as an evolving organism in which one generation may have to sacrifice present benefit in order to build up the strength and well-being of another. He saw protection as involving national sacrifice undergone for the sake of national economic development. He was also

[1] F. List, The National System of Political Economy, trans. S.S. Lloyd; (New York: Longmans, 1904).

an early advocate for the balanced development of the economy of which the three productive powers, agriculture, manufacturing, and commerce would be developed at the same pace. He used this argument to advocate the diversification of the German economy through industrial development. He proposed to achieve this end by the gradual introduction of protective tariffs on industrial products, while allowing free international trade in agricultural produce. Protection of industry in this context would help the establishment of industry in its early stages when it could hardly withstand the competition of long-established rivals in foreign countries. The protection could be considered to be educative and could be withdrawn as soon as the protected industries would be able to compete with those abroad.

This was the first elaborate statement of the infant industry argument for protection. The idea was later developed by no less a free trader than John Stuart Mill who sought to establish that in the context of development, comparative advantage must be understood in a dynamic, rather than static sense. He stated that "the superiority of one country over another in a branch of production often arises only from having begun it sooner. There may be no inherent advantage on one part or disadvantage on the other, but only a present superiority of acquired skill and experience".[1] This idea has been followed up by many modern writers

[1] J.S. Mill, Principles of Political Economy, Vol. II; (London: Longmans, 1871), pp. 537-538.

and the infant industry argument for protection has traditionally been accepted as a valid exception to the general case for free trade. In contemporary economic thinking, as we shall see later, the protectionist theory seeks to articulate the view that protection can be used as a means to promote the development of less developed countries. In this context, protection is associated with planned industrialization. This part of the argument is best exemplified by the exposition of the case for protection based on the existence of dynamic external economies. A second issue closely linked with this one is the divergence between social and private costs in the various sectors of the economy. A tariff in this context is seen as a means to offset this divergence, thus reorganizing the production and consumption patterns of the economy. Both of these issues will be examined in some detail in the next chapter.

Many economists, moreover, question the adequacy of the traditional trade theory to deal with development problems. The theory, they maintain, is essentially static in so far as it assumes given tastes, given resources, given technology, and in so far as it is concerned with determining a once-for-all optimum allocation of given resources. These assumptions preclude an analysis of the long-run dynamic influence of international trade and miss the essence of development, which is not so much that of achieving an optimum allocation of resources through the fulfillment of marginal conditions in a static situation, as it is that of increasing the

supply of resources through profound structural changes and that of allocating resources under dynamic conditions. On the other hand, it does not necessarily follow that the extension of the traditional theory to long-run dynamic problems will prove the classical conclusions invalid. The theory of comparative costs and the classical view of the gains from trade may in fact prove valid under dynamic conditions. The next chapter also attempts to find out the present-day economic thinking on this issue.

A group of eminent economists, with a wide following in the underdeveloped countries, argue that the pattern of trade relationships which prevails today between advanced and less developed countries, or that prescribed by the traditional view for that matter, has the effect of frustrating the development of the poor countries while benefiting the rich ones. This criticism hinges both on the interpretation of historical evidence and on criticism of the assumptions of the traditional theory. With respect to the historical evidence it is worth noting that the same evidence is used both by the proponents of the traditional view and by its critics to support their respective cases.

In this context, early critics have sometimes raised the issues of imperialism and colonialism, attempting to oppose the Ricardian concept of mutual gains from trade with the Marxian concept of deliberate exploitation of the poor countries by the rich ones. A more sophisticated modern version dismisses deliberate exploitation but envisions the operation of economic forces

operating through the international economy to the detriment of the poor countries and to the advantage of the rich ones. These forces, it is alleged, tend to perpetuate the dualistic character of less developed economies and to maintain their state of dependence with respect to rich countries. For some of these economists the major problem is an alleged secular deterioration of the terms of trade against the primary products which form the bulk of the exports of less developed countries. This would mean that the less developed countries could produce and export ever-larger quantities without increasing revenue. These economists support their case with statistical evidence as well as with theoretical arguments. Both, however, are questioned by the majority of economists. The whole debate over the historical role of trade as an agent of development, including the terms of trade controversy, will be examined in Chapter Three.

It is quite natural for the underdeveloped countries to be greatly concerned about the role of international trade in development. If the beneficial effects of trade claimed by the traditional view could be substantiated and the questions of the critics adequately answered, then the less developed countries could indeed regard trade as a powerful propeller of their development given that foreign trade is such a large fraction of their national income. On the other hand a verification of the contentions of the critics would indicate that, because of this very high degree of openness of their economy, they stand to lose immensely and

that by pursuing policies prescribed by the classical view they may perpetuate their underdeveloped state.

It is not surprising, therefore, that the views of the critics of the traditional position have found a large following in underdeveloped countries. H.W.Singer, himself a leading critic, writes that "The principle of specialization along the lines of comparative advantage has never been generally accepted in underdeveloped countries, and not even generally intellectually accepted in the industrialized countries themselves".[1] The reasons for this are manifold. It is felt in many places, for example, that underdeveloped countries should not rely on external forces to promote their economic development. Reliance on external forces means that the pace of development cannot be determined by domestic policy but is set by forces which are not within the control of the national, or indeed any, authorities. As they specialize along the lines of comparative advantage, they are likely to become export oriented, with the consequence that this dependence will increase and, therefore, they will stand to lose even more if trade really works to their detriment. The classical theory of international trade would interpret the foreign trade orientation of less developed countries as being consistent with the principle of comparative advantage and therefore in their interest.

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[1] H.W.Singer, "The Distribution of Gains between Investing and Borrowing Countries", American Economic Review, XL (May, 1950). Reprinted in Readings in International Economics, R.Caves and H.G.Johnson, eds.; (Homewood: Richard D. Irwin, 1968), p. 309.

Indeed some writers believed that the larger share of the gains from trade would accrue to economically small countries such as the less developed ones.[1] Economists in underdeveloped countries are not overly impressed by this argument and view with apprehension the fact that foreign demand is concentrated on a limited sector of the economy, frequently resulting in the specialization of the less developed economy in one or a few commodities, often in the extractive industries. Thirty underdeveloped countries, for example, depend upon a single product for at least half their export earnings, and the number of countries in this state of affairs shows no tendency to fall.[2] The disquiet is aggravated by the feeling that the foreign demand for these products is usually price inelastic so that further expansion in their production will bring lower total revenues from exports. Fluctuations in the volume and value of trade, moreover, are likely to affect these products to a greater extent.

Even in the nineteenth century when international trade was admittedly favorable to underdeveloped countries, it created discontent. As W.A. Lewis puts it, "The process, though beneficial, generated immense resentment in Asia and Africa and Latin America. This resentment is in sum the resentment which any one of us feels

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[1] F.D.Graham, "The Theory of International Values," Quarterly Journal of Economics, XLVI (Aug., 1932), pp. 581-616.

[2] Figures quoted in A.K.Cairncross, "International Trade and Economic Development" Economica, XXVIII (Aug., 1961). Reprinted in Readings in International Economic Relations, F.B.Jensen and I.Walter, eds.; (New York: The Ronald Press, 1966), p.421.

against being dependent on somebody else. The momentum of growth was in Europe and North America ..... The outlying continents were in a sense peripheral, and nobody likes to be peripheral".[1] The principal grudge against this pattern was the domination of foreign trade by foreigners who were much more interested in finding sources of raw materials and foodstuffs to supply the industries of the countries at the centre and in finding markets for the output of those industries than in furthering the economic development of the peripheral countries. As a result of this, they tended to invest mainly in plantations or mines. In this frame of mind they were not very interested in taking measures likely to result in a rise in the general productivity of the domestic industries of the peripheral countries, nor in removing obstacles in the domestic market which prevented the impetus provided by the export sector to spread to the home market. Moreover, the foreigners who controlled the export sector often found themselves in monopolistic positions both in the export and import sectors, thus enabling them to further their interest which did not necessarily coincide with that of the peripheral countries. Such feeling of resentment, whether justified or not, is still very much alive in underdeveloped countries.

The suspicion in underdeveloped countries toward foreign trade and the pessimistic view of the critics seem to be justified

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[1] W.A.Lewis, "Economic Development and World Trade," in Problems in Economic Development, E.A.G.Robinson, ed.; (London: MacMillan, 1965), p. 483.

to some extent by the performance of the international economy. Per capita income in rich countries is rising by more than 3 percent annually, compared with slightly more than one percent in less developed countries. The exports of rich countries are growing twice as fast as those of the poor ones. From 1950 to 1966 world exports rose by 234 percent, while the exports of less developed countries rose by only 96 percent. During the same period, population in poor countries grew at an average rate of 2.2 percent per annum, twice as fast as the population of industrial countries.[1] The question, however, is whether the underdeveloped countries could have put up a better performance if they had resorted to more intensive protectionist policies, or whether such policies would have resulted in an even poorer performance.

The attempt here is to appraise what can and cannot be expected from trade in the light of present-day economic thinking. We must realize the limitations of such an approach. Economic theories tend to simplify the facts of economic life to an enormous extent. These simplifications tend to illuminate the important issues by eliminating all the variables that are not crucial to the subject. This is done by specifying the assumptions upon

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[1] Figures quoted in B.Ward, "Two Decades of Development," in Two Views of Foreign Aid; (London: The Institute of Foreign Affairs, 1966). Also, S.M.Fine, "Economic Growth and Less Developed Countries," OECD Observer, (Sept., 1966), pp. 23-34. Both articles reprinted in Reshaping the World Economy, J.A.Pincus, ed., (Englewood Cliffs: Prentice-Hall, 1968), pp. 18-41.

which given theories rest. The usefulness of those theories will depend upon how well the assumptions reflect relevant economic conditions. This approach presents various difficulties especially in the field of economic development because economic development is a process taking place over a very long period of time and includes qualitative as well as quantitative changes. Although the strength of economic theories lies in simplification, explaining economic processes by singling out strategic variables from the myriad, their ability to forecast over extended periods of time is severely limited, because during that time the values of the strategic variables will have shifted in unpredictable ways. This amounts to recognizing that over long periods of time other things are not equal. This has prompted modern economists to break with the traditional boldness of the classical economists by refraining from claiming to be able to formulate comprehensive and totally general theories of economic development. They tend instead to offer partial explanations and to restrict themselves to particular aspects of the process. The theoretical relationship between economic development and international trade has been the subject of long debate. Its usefulness for policy purposes, however, must be viewed within the limits set by the relevance of the assumptions upon which it is based. Thus an examination of the various aspects of the relationship between international trade and economic development is likely to give limited insights into, rather than complete solutions to, the problems of economic development.

CHAPTER II

International Trade Theory and Economic Development

1. The Case for Free Trade

The case for free trade is a case for economic efficiency, that is, the optimal allocation of world and national resources. The main body of international trade theory stems essentially from the Ricardian principle of comparative advantage and the contribution of other classical economists, especially J.S.Mill, with the neoclassical and modern theorists adding important refinements and extentions without thereby changing the essential nature of the theory.

The classical theory of comparative costs was formulated with a view of deriving policy recommendations, especially to make a case for free trade.[1] The theoretical proof that specialization along lines of comparative advantage would minimize costs of production or maximize output provided powerful support for the advocates of a free trade policy. Ricardo and Mill, for example, sought to justify the abolition of the Corn Laws in England by examining the beneficial effects of cheap corn imports from the colonies on profits, wages, and rents.[2] Given a certain number

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[1] J.Viner, Studies in the Theory of International Trade; (Reprints of Economic Classics; New York: Augustus M. Kelley, 1965), p. 437.

[2] Ibid., pp. 437-444.

of assumptions, not all of which were explicit in the classical analysis, it was possible to demonstrate that, by specializing in the production of those commodities which they could produce at the lowest cost and by exchanging part of them for goods they could only have produced at high cost, all countries would gain in the process.

The logic of the principle of comparative advantage is quite unassailable on its own ground, but it is based on a number of quite restrictive assumptions. The most important of these are (1) two countries of approximately equal size; (2) two commodities of approximately equal economic importance; (3) no transport costs; (4) one factor of production, namely labor; (5) factors mobile within countries but immobile between countries; (6) constant costs of production; (7) full employment in both countries; (8) perfect competetion in all markets. It would be difficult to dispute that such a formidable set of assumptions limits the scope of the classical conclusions and that one must be quite cautious in deriving policy rules from a theory based on such conditions. The classical economists themselves never put forward the free trade conclusions in an entirely unqualified form.[1]

The Ricardian theory can also be construed as an attempt to explain the pattern of trade. Given the above assumptions, the Ricardian theory results in the following proposition: the

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[1] G.Haberler, "The Relevance of the Classical Theory Under Modern Conditions," American Economic Review, XLIV (May, 1954),pp. 543-564.

pattern of trade is determined by differences in the relative labor productivities in different productive activities. If X_A and X_B are factor productivity ratios in country I and Y_A and Y_B are factor productivity ratios in country II in productive activities A and B respectively, then the Ricardian hypothesis is that if $\frac{X_A}{X_B} > \frac{Y_A}{Y_B}$, commodity A will be cheaper, and commodity B dearer, in country I than in country II. Hence, country I will specialize in and export commodity A, while country II will specialize in and export commodity B. The algebraic condition is usually expressed as $\frac{X_A}{Y_A} > \frac{X_B}{Y_B}$ [1].

The Ricardian model could be extended by relaxing the two commodity assumption, in which case the Ricardian hypothesis becomes that the labor productivity will be higher for each country's exports than for its imports. In this case the Ricardian proposition could be presented in the following general form:

$$\frac{{}^{o}X_{1i}}{{}_{L}X_{1i}} \Big/ \frac{{}^{o}X_{2i}}{{}_{L}X_{2i}} > \frac{{}^{o}M_{1j}}{{}_{L}M_{1j}} \Big/ \frac{{}^{o}M_{2j}}{{}_{L}M_{2j}} \qquad \begin{matrix} i = 1,2,....n \\ j = 1,2,....m \end{matrix} \qquad (1)$$

where $M_1.....M_m$ are country I's imports and $X_1.....X_n$ are country II's exports and $\frac{{}^{o}X_{1i}}{{}_{L}X_{1i}}$ and $\frac{{}^{o}M_{1j}}{{}_{L}M_{1j}}$ are the labor productivities in country I (i.e., total output divided by manhours employed) in X_i and M_j respectively, $\frac{{}^{o}X_{2i}}{{}_{L}X_{2i}}$ and $\frac{{}^{o}M_{2j}}{{}_{L}M_{2j}}$ being the corresponding labor productivities in country II in X_i and M_j.

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[1] J.Bhagwati, "The Pure Theory of International Trade: A Survey," Economic Journal, LXXIV (March,1964), pp.1-84. Reprinted in American Economic Association, Surveys of Economic Theory, Vol.II; (New York: St. Martin's Press, 1966), pp.156-239. Also, "Some Recent Trends in the Pure Theory of International Trade," in R.F.Harrod and D.C.Hague,eds., International Trade Theory in a Developing World; (London: Macmillan, 1963), pp. 1-30.

If we assume that prices reflect labor costs, then the Ricardian hypothesis would become that trade is determined by labor costs. This is equivalent to saying that

$$\frac{{}^{o}X_{1i}}{{}^{t}X_{1i}} \Big/ \frac{{}^{o}X_{2i}}{{}^{t}X_{2i}} \cdot \frac{W_{2i}}{W_{1i}} > 1 \text{ and } \frac{{}^{o}M_{1j}}{{}^{t}M_{1j}} \Big/ \frac{{}^{o}M_{2j}}{{}^{t}M_{2j}} \cdot \frac{W_{2j}}{W_{1j}} < 1 \quad (2)$$

where W_{1i}, W_{2i}, W_{2j}, and W_{2j} represent the average wage rates in industries i and j in countries I and II. In this context, the Ricardian hypothesis is expressed in terms of comparative unit labor costs rather than in terms of labor productivity.

The neoclassical economists refashioned the classical theory by progressively relaxing some of the restrictive assumptions upon which it was based. The most notable difference was the abandonment of the assumption that trade depended on the productivity of a single factor, labor. Within the framework built by the classical economists it was not necessary anymore to let the free trade conclusions depend on the discredited labor theory of value. The theory rested now on the concept of cost, either the Marshallian "real" cost[1] or the Austrian "opportunity" cost[2]. Other advances were the introduction of variable costs and the possibility of incomplete specialization. In the neoclassical

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1 A.Marshall, The Pure Theory of International Trade, (Reprints of Scarce Tracts on Political Economy; London: London School of Economics, 1930). Also, Viner, op.cit., p. 492, and F.W.Taussig, International Trade; (New York: Macmillan, 1927).

2 G.Haberler, The Theory of International Trade, with its Applications to Commercial Policy, (Translated by A.Stonier and F.Benham; London: William Hodge & Co., 1936).

framework, moreover, the initial two country, two commodity model could be easily extended to include many countries and many commodities, the exchange rate providing the link between production costs of the various commodities in the various countries.

A very influential version of the neoclassical model was presented by Heckscher and Ohlin.[1] This formulation has been extended by Samuelson and others,[2] and is the cornerstone of modern international trade theory. The theory resulting from the work of Heckscher and Ohlin and its extension is in the form of general equilibrium. While such theory relaxes some of the restrictive assumptions underlying the classical theory, it retains a considerable number of them. No transport costs, the existence of perfect competetion in product and factor markets, full employment, and internal mobility combined with international immobility of factors are still essential assumptions of the analysis. Furthermore, this modern version requires the following additional assumptions: 1. there is a production function which represents various alternative combinations of factors to produce a given commodity; 2. the production functions are linearly homogeneous,

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[1] E.Heckscher, "The Effect of Foreign Trade on the Distribution of Income," in H.S.Ellis and L.A.Metzler,eds., Readings in the Theory of International Trade; (Philadelphia:Blakiston, 1949), pp.272-300. B.Ohlin, Interregional and International Trade; (Cambridge: Harvard University Press, 1933).

[2] P.A.Samuelson, "International Trade and Equalization of Factor Prices," Economic Journal, LVIII (June, 1948), pp.163-184. Also, W.Stolper and P.A.Samuelson, "Protection and Real Wages," Review of Economic Studies, IX (Nov., 1941), pp.58-73.

identical for the same commodity, different for each commodity in the various countries, and not subject to factor reversals; 3. factors are qualitatively identical and are distributed in a given pattern among the various countries; and 4. there is some given preference pattern for various commodities in each country. This remains a redoubtable set of abstract and restrictive assumptions.

The Heckscher-Ohlin theory differs from the Ricardian analysis in two main aspects. The first difference is that the Heckscher-Ohlin theory was presented with a view to explain explicitly the structure or pattern of foreign trade, rather than to establish the welfare propositions of foreign trade theory.[1] The second difference concerns the determinants of the pattern of trade. As noted, the classical theory attributed comparative advantage to differences in labor productivity. The Heckscher-Ohlin theory postulates that a country has comparative advantage in the production of those commodities which use intensively those factors with which the country is relatively well endowed. Given the technical conditions of production, the pattern of factor endowment, and the production functions on the one hand, and the preference pattern on the other, international trade patterns will be determined in a manner similar to that which determine prices in a national economy, each country producing

[1] Bhagwati, "The Pure Theory....." op.cit., p. 173.

and exporting those commodities the production of which requires large quantities of the factors it possesses in relative abundance, and import all other commodities. In the absence of transport costs, the prices of internationally traded commodities will be the same in all countries and the prices of factors will tend to equality without, however, attaining equality.[1] The policy prescribed by this theory is quite evident: each country should specialize in the production of those commodities which require more of the plentiful factors. If labor is the most abundant factor in underdeveloped countries, as many believe, these countries should specialize in the production and export of labor-intensive goods.

The Heckscher-Ohlin version of the theory of comparative advantage has been credited with superiority over the classical theory because it is claimed to be "operational" while its classical counterpart is not so. Thus Haberler states that

> while.... the (classical) comparative cost theory is a powerful tool for deriving welfare propositions, it is not a very useful device for predicting the range of commodities which a given country will export and import. For a concrete operational answer to the last question we have to turn

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[1] As is well known, Samuelson has extended this part of the Heckscher-Ohlin theory showing that under some quite restrictive assumptions, most of which are common to the Heckscher-Ohlin theorem, factor prices would actually be equalized. See P.A.Samuelson "International Trade and Equalization of Factor Prices," op.cit. Also, "International Factor-Price Equalization Once Again," Economic Journal, LIX (June, 1949), pp. 181-197.

to the Heckscher-Ohlin type of theory....[1]

The lack of operational capacity is imputed to the theory because allegedly it does not specify the determinants of comparative advantage. Thus the classical model, it is argued, can "explain" international specialization and trade once specialization and trade have occurred, but cannot indicate or predict which pattern of specialization and trade will or should take. The Heckscher-Ohlin model, however, by asserting that specialization should occur along lines dictated by factor endowment can predict the pattern of specialization and trade and can provide a guide to resource allocation. The notion of factor endowment presents some definitional problems, however. For Ohlin the relative abundance of a factor in one country meant that, prior to trade, in that country the price of that factor is lowest relative to other countries, that is $\frac{P_{1c}}{P_{1L}} < \frac{P_{2c}}{P_{2L}}$, where P_{1c}, P_{1L}, P_{2c}, and P_{2L} are the prices of capital (C) and labor (L) in country I and II respectively.[2] In other words, the pre-trade ratio of factor prices in the two countries is taken as an index of

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[1] Haberler, "The Relevance of Classical Theory...." op.cit., p. 549. Also, H.B.Chenery, "Comparative Advantage and Development Policy," American Economic Review, LI (March, 1961). Reprinted in American Economic Association Surveys of Economic Theory, Vol.II; (New York: St.Martin's Press, 1966),pp.125-155.

[2] Ohlin, op.cit., p.67. Samuelson and Stolper, op.cit.,pp.58-73. Also, J.Bhagwati, "Protection, Real Wages and Real Incomes," Economic Journal, LXIX (Dec., 1959),pp.733-48. Also, H.G.Johnson, "Factor Endowments International Trade and Factor Prices," in his International Trade and Economic Growth; (Cambridge: Harvard University Press, 1965),pp.17-30.

relative factor endowment. But the prices of factors in any country is not determined only by supply considerations, but by demand considerations and other economic forces as well. Hence, the relationship between factor endowment and factor prices is not clear and, by the same token, the relationship between factor endowment and international specialization and trade becomes questionable.

Alternatively factor endowment could be defined in terms of the relative physical quantities of factors of production which each country possesses. Using this definition, we would say that country I is capital-rich (and therefore country II is labor-rich) if $\frac{C_1}{L1} > \frac{C_2}{L2}$ where C_1 and L_1 are the total amounts of capital and labor respectively in country I, and C_2 and L_2 are the total amounts of capital and labor respectively in country II. In this case, however, though a capital-rich country, for example, will have a bias in favor of producing goods which use the plentiful factor intensively,[1] that is, it will produce more capital-intensive goods than the other country, it does not follow that this country will export these particular capital-intensive goods because factors on the demand side might be strong enough to offset the production bias. The type of trade pattern that will emerge will depend upon the relative strength of demand in the two countries. If this definition of relative factor endowment is used,

[1] R.W.Jones, "Factor Proportions and the Heckscher-Ohlin Theorem," Review of Economic Studies, XXIV, No.1, (1956-57),pp.1-10.

the validity of the Heckscher-Ohlin theorem will require an additional assumption: that the consumption-pattern between countries at each relevant commodity ratio be identical.[1]

W.M. Corden states that the Heckscher-Ohlin trade theory "goes behind comparative advantage and shows the link between a nation's economic structure and its trade".[2] This may well be true conceptually, but to be operational a theory must be testable. A model explaining a phenomenon as complex as international trade must necessarily present a considerable number of abstractions from reality; but to be useful it must succeed in abstracting only from those phenomena that are not crucially important. The simplifications must be such as not to render any theorem based on them useless in explaining and predicting the pattern of trade. The only relevant test to find out if such is the case is to try out the theory and see whether it gives reasonable fits to observed facts. For these reasons there have been a number of attempts in recent years to test empirically both the classical and the Heckscher-Ohlin models of trade. MacDougall attempted to test the classical model by verifying the proposition that a country will tend to export those products in which its labor productivity is relatively higher than in the other country compared to relative money wage rates in each country.[3] Comparing

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1 J.Bhagwati, "The Pure Theory...." op.cit., p.174.

2 W.M.Corden, Recent Developments in the Theory of International Trade, (Papers in International Economics, International Finance Section, Princeton University, 1965), p.24.

3 G.D.A.MacDougall, "British and American Exports: A Study Suggested by the Theory of Comparative Advantage. Part I," Economic Journal, LXI (Dec., 1951), pp.697-724; "Part II," Economic Journal, LXII (Sept., 1952), pp.487-521.

American and British export volumes of similar commodities to third countries,[1] MacDougall tested a hypothesis clearly inspired by inequality (2), that is:

If $\frac{{}^{o}E_{1i}}{{}^{L}E_{1i}} \Big/ \frac{{}^{o}E_{2i}}{{}^{L}E_{2i}} \cdot \frac{W_{2i}}{W_{1i}} > 1$, then $\frac{{}^{q}E_{1i}}{{}^{q}E_{2i}} > 1$, for $i = 1,2,....K$;

and $\frac{{}^{o}E_{1i}}{{}^{L}E_{1i}} \Big/ \frac{{}^{o}E_{2i}}{{}^{L}E_{2i}} \cdot \frac{W_{2i}}{W_{1i}}$ is positively correlated to $\frac{{}^{q}E_{1i}}{{}^{q}E_{2i}}$,

where E is the commodity exported by countries I and II to third markets, and Q is the quantity of exports.

MacDougall found that, for 20 out of 25 industries examined, Americans had the bulk of export market in those products where the relative labor productivity was higher than the relative wage rate. The same was true for Britain.[2] This, in MacDougall's opinion, tended to confirm the classical theory of comparative costs even when based on a labor theory of value. His conclusion is: "It seems that the labour theory of value, crude as it is, does help to provide some explanation of British and American export trade in manufactures in an imperfect world market and to illustrate the importance of tariffs in limiting international commerce."[3]

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1 MacDougall excluded American and British exports to each other because of tariff obstacles especially on the part of the United States (see MacDougall,"Part I",pp.699-706). This translation of the classical comparative cost model into a multi-country setting is a valid one.

2 Ibid., "Part I", pp. 697-698.

3 Ibid., "Part I", p. 510.

Stern has recently followed MacDougall's hypothesis and procedures closely basing his analysis on different data.[1] He uses ratios of output per worker, net costs per unit, and export prices of selected British and American manufacturing products. MacDougall and others have substantiated Stern's results using different data and methods, noting that after 1950, when tariffs in the United states were at approximately the same level as in Britain, tariffs did not offset comparative advantage to any significant extent in determining export volumes.[2]

The hypothesis that labor productivity is a very important determinant of comparative advantage is also supported by Kravis.[3] He reaches the conclusion that relative output differences per worker are probably much more significant determinants of comparative advantage than relative differences in money wage rates. Finally, in a paper which he says, "can be regarded as a continuation of MacDougall's work", Balassa, measuring productivity as net output per worker and using recent and reliable data, selected 28 industries which produced 43.1% of the manufacturing output in Britain and 41.4% in the United States and compared

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[1] R.Stern, "British and American Productivity and Comparative Costs in International Trade," Oxford Economic Papers, XIV (Oct., 1962), pp. 275-296.

[2] G.D.A.MacDougall, M.Dowley, P.Fox, and S.Pugh, "British and American Productivity, Prices and Exports: An Addendum," Oxford Economic Papers, XIV (Oct., 1962), pp. 297-304.

[3] I.Kravis, "Wages and Foreign Trade," Review of Economics and Statistics, XXXVIII (Feb., 1956), pp. 14-30.

relative productivity with their export performance in the two countries.[1] Again the results indicated that there is a high correlation between productivity ratios and export shares, this confirming the classical hypothesis to a great extent, the residual being explainable by such factors as transport costs, trade preferences, exchange restrictions, and the like.

On the other hand, attempts to test empirically the Heckscher-Ohlin theory have proved to be a "tricky business".[2] MacDougall had attempted to verify the Heckscher-Ohlin model by testing the proposition that because Britain had less capital per worker than the United States, it should have a larger share of the world market for goods requiring relatively little capital. Using horsepower as a rough index of capital employed, he found no significant relationship.[3] Leontief, putting to work his input-output machinery, found that the United States, admittedly the most capital-rich country, apparently exports labor-intensive goods and imports capital-intensive ones.[4] Leontief attempted to explain the para-

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[1] B.Balassa, "An Empirical Demonstration of Classical Comparative Cost Theory," Review of Economics and Statistics, XLV(Aug., 1963), pp. 231-238.

[2] Caves, op.cit., p. 273.

[3] MacDougall, op.cit., "Part I", pp. 707-708.

[4] W.W.Leontief, "Domestic Production and Foreign Trade: The American Capital Position Re-examined," Proceedings of the American Philosophical Society, XCVII (Sept., 1953), pp. 332-349; Also, "Factor Proportions and the Structure of American Trade," Review of Economics and Statistics, XXXVIII (Nov., 1956), pp. 386-407.

doxical results of his inquiry by attributing a productive superiority to American labor even larger than its apparent relative advantage in capital endowment. This, however, violates essential assumptions of the Heckscher-Ohlin theory, namely that factors of production are homogenous and that production functions are identical in all countries. To discard these assumptions is almost equivalent to discarding the entire Heckscher-Ohlin theory. Similarly, other explanations that have been advanced to resolve the Leontief Paradox inevitably lead to the result that some of the assumptions of the Heckscher-Ohlin model require modification.[1] It is reasonable, for example, to hypothesize that scarce factors other than labor and capital influence the pattern of international trade. The existence of these other factors, however, again implies that production functions are not homogenous. With a multi-factor approach the notion of factor intensity, essential in the Heckscher-Ohlin theorem, becomes increasingly ambiguous, destroying the symmetry of the two-factor model.

The classical approach to trade theory, on the other hand, does not lead into this kind of difficulty. Nevertheless, Travis argues that the Heckscher-Ohlin theory is the only complete and and general explanation of international trade, and, using empirical data, shows that trade patterns fail to reflect relative factor

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[1] S.Clemhout, "Production Function Analysis Applied to the Leontief Scarce-Factor Paradox of International Trade," Manchester School of Economics and Social Studies, XXXI (May, 1963), pp. 103-114.

endowment because of distorting tariff effects.[1] Ford questions the view that the Leontief study is a refutation of the Heckscher-Ohlin theory, objecting to the method employed.[2] He believes that the correct approach would have been to compare input coefficients for actual exports and actual imports rather than to compare input coefficients for export industries and competitive import-replacements as done by Leontief. In spite of all this, however, the paradox has not been resolved beyond doubt. It remains, therefore, an open question as to which of the two approaches to trade theory is "superior" or which provides a more operational theory of trade.

The aim here is to evaluate the claim that free trade is the best policy the underdeveloped countries could adopt in order to stimulate their development. This means that at least some of the assumptions from which the free trade conclusions have been derived, especially those more directly relevant to development problems, will be questioned. No particular effort will be made, however, to distinguish which of the two approaches to trade theory is being investigated, most of the assumptions questioned being really common to both approaches.

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1 W.P.Travis, The Theory of Trade and Protection; (Cambridge: Harvard University Press, 1964).

2 J.L.Ford, "The Heckscher-Ohlin Theory of the Basis of Commodity Trade," Economic Journal, LXXIII (Sept., 1963), pp. 458-476. Also, "Measures of Factor Endowments and Factor Intensity," Oxford Economic Papers, XV (Nov., 1963), pp. 273-277.

2. Resource Allocation and International Specialization

The critics of the traditional view that free trade is the best policy in the context of development begin by questioning the claim that international specialization will result in the most efficient allocation of resources.

They claim instead that the traditional theory of resource allocation must be modified to take into account the conditions existing in the underdeveloped countries, especially with respect to investment criteria for economic development. This argument is set in several forms that are linked in certain respects, but hinges mainly on the widespread existence in underdeveloped countries of external economies of investment and of divergence between social and private costs. Furthermore, it criticizes the static nature of the traditional trade theory and calls for the elaboration of a dynamic trade theory in accordance with the whole problem of development which is essentially dynamic in nature. In this chapter these issues are discussed in that order.

A - External Economies

The equilibrium conditions outlined in the previous section fulfill the requirements for the optimal allocation of resources; however, one of the tacit assumptions of the theory, itself inherent in the assumption of perfect competition, is the absence of external economies (or diseconomies). If this assumption is

relaxed, however, market forces will not necessarily lead to optimal investment decisions because current prices will not accurately reflect the cost and demand conditions that will prevail in the future.

The concept of external economies occupies a prominent place in modern theories of economic development. Its use in the neo-classical model underlies the interdependent and complimentary nature of the economy and recognizes that growth in one industry not only induces but is also dependent upon the growth of another. The theoretical work in economic development has emphasized that, even in the absence of other market imperfections, external economies are very important in the initial stages of economic development. This concept has not been adequately integrated into the theory of international trade, at least with respect to its importance in the process of development.

The concept of external economies was first introduced by Marshall in his analysis of the theory of the firm to explain the problem of indeterminacy of the long-run supply price of a commodity in partial equilibrium because of increasing returns resulting from internal and external economies. Internal economies arise from a more efficient use of resources by the firm as it expands its scale of production; external economies refer to the benefits accruing to the firm as a result of an expansion of the industry within which the firm operates, or of other industries. The essential element in the Marshallian concept is cost-reduction

as a mechanism of investment expansion. Subsequently, the concept was broadened and external economies have been classified in diverse ways by different writers. Allyn Young postulated that at the heart of economic progress was the interrelatedness by which the expansion in one country would create a market for another and thus generate economies external to the first industry.[1] This is a broader concept than the Marshallian one which referred to economies external to the firm. Young attributed these economies to the adoption of "roundabout" methods of production and division of labor among industries.[2] Thus Young expanded the concept into a major part of an integral theory of economic development. His analysis stressed the dynamic interdependence of investment schemes and hence the cumulative feature of the growth process.

Jacob Viner introduced the perspicacious distinction between "technological" and "pecuniary" external economies.[3] The latter variety cause the long-run supply curve of an industry to decline because the price of an input used in that industry falls in response to an increase in that industry's demand for it. The technological variety, on the other hand, though also a function of the industry's output, consists in organizational or other improve-

[1] Allyn Young, "Increasing Returns and Economic Progress," Economic Journal, XXXVIII (Dec., 1928), pp. 527-542.

[2] Ibid., p. 539.

[3] J.Viner, "Cost Curves and Supply Curves," Readings in Price Theory, G.J.Stigler and K.E.Boulding, eds.; (Homewood: Richard D. Irwin, 1952), pp. 198-232.

ments in efficiency which do not show up in input prices. This technological variety belongs to a more general doctrine of direct interaction and interdependences that are external to the price system and are, therefore, unaccounted by market valuations. Analytically, it implies the non-independence of preference and production functions and its effect is to cause divergence between private and social cost-benefit calculations.

Meade distinguishes between those external economies due to "unpaid factors of production", illustrated by the mutually beneficial effects of apple-growing and bee-keeping activities, and "atmosphere-creating" external economies, illustrated by the beneficial effects on wheat of the increased rainfall brought about by the rain-inducing effect of trees in nearby timber forests.[1] The essential difference between those two types of external economies is that in the first case there are still constant returns to scale to society as a whole though not for the individual industries, whereas in the second case there are constant returns to scale for the individual industry, but not to society as a whole. Both are rendered free and are at the same time not emanating through the price mechanism and consequently could be accomodated within the framework of the equilibrium theory. They are, therefore, similar to technological external economies in this respect since these economies can be said to accrue when

[1] J.E.Meade, "External Economies and Diseconomies in a Competitive Situation," Economic Journal, LXII (March, 1952), pp. 54-67.

the increased profits of a given firm depend neither on a reduction of its factor prices nor on an increase in the demand for its product; in this case it is due to increased production on account of unpaid factors of production or on atmosphere created by investment elsewhere. This type of external economies is fairly uncommon in its pure form, however, and consequently not critically important. As Scitovsky has said "the examples of external economies given by Meade are somewhat bucolic in nature, having to do with bees, orchards, and woods. This, however, is no accident; it is not easy to find examples from industry."[1] Meade himself, when discussing commercial policy, abandons his bucolic and atmosphere examples and introduces "economies of conglomeration" which have a strong resemblance to the Marshallian external economies, even though Meade actually classifies these economies of conglomeration in his atmosphere creating category.[2]

Scitovsky considers another concept which, borrowing Viner's terminology, he calls pecuniary external economies.[3] He considers these much more important in the theory of industrialization especially in the context of developing countries. Pecuniary external economies arise not only from the direct interdependence

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[1] T.Scitovsky, "Two Concepts of External Economies," Journal of Political Economy, LXII (April, 1954), p. 145.

[2] J.S.Meade, The Theory of International Economic Policy, Vol.II, Trade and Welfare; (New York: Oxford University Press,1955),pp.258-269

[3] Scitovsky, op.cit., pp. 143-151. Scitovsky also calls his type of external economies "dynamic".

amongst producers outside the market mechanism but also from interdependence amongst producers through the market mechanism. In other words, pecuniary external economies are realized whenever the profit of the firm is augmented either on account of the reduction caused in the factor prices or due to any increase created in the demand for the product apart from those which accrue outside the price mechanism. In this way pecuniary external economies include, but are essentially wider than, technological external economies. Marshall had recognized the implications of cost reduction as an inducement to invest, but he was more interested in explaining the problems posed by partial equilibrium analysis than in working out the implications of costs-reducing external economies and relating them to the theory of investment.[1] In any case, any attempt to incorporate pecuniary external economies within the framework of general equilibrium theory would have been self-defeating for the simple reason that pecuniary external economies by their very nature are disequilibrating, since they are dynamic in character and, hence, will not fit with the static equilibrium theory. Profits cannot exist in a state of equilibrium; but investment resulting in external economies gives rise to profits because of cost reduction, and as a consequence drives the system away from equilibrium. It is also true that investment tends to bring the system nearer to equilibrium by flowing in the

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[1] H.W.Ardnt, "External Economies and Economic Growth," The Economic Record, XXXI (Nov, 1955), p. 195.

directions where profits exist. Even so, equilibrium will be established only in the special case where the contrary tendencies simultaneously eliminate profits. This, according to Scitovsky, must be considered an exceptional case.[1] Scitovsky was concerned with finding the conditions under which private profitability of investment would be a "reliable index of social desirability" or, in other words, the conditions under which private and social benefit will coincide. Generally speaking, however, in the presence of pecuniary external economies it is impossible to apply the static equilibrium theory to the dynamic problem of allocating investible funds between various opportunities of investment. Two conclusions emerge from Scitovsky's analysis. First, the price mechanism is inadequate as a guide to investment decisions in an underdeveloped economy; second, the complete internalization of external economies can only be ensured by detailed economic planning. A linear programming approach including a number of non-market, but quantifiable phenomena by the use of accounting prices has been suggested. This approach would determine an optimal allocation of investment and a pattern of trade which need not necessarily coincide with that dictated by comparative advantage or market forces.[2]

The concept of external economies has been treated in a variety of other ways and has been given a variety of meanings

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1 Scitovsky, op.cit., p. 148.

2 Chenery, op.cit., pp. 131-151.

by different writers, such as Ellis and Fellner[1], Bator[2], and others[3]. This has not been an unmixed blessing; while it has explored further aspects of the concept, it has contributed to create additional complexity for an already misunderstood concept. Mishan, for example, objects to Scitovsky's new classification of "pecuniary" external economies on grounds that they seem to fall into already familiar categories. Scitovsky's aim, however, was to draw attention to those external economies which are very important in the context of underdeveloped economies. His pecuniary external economies differ from Viner's, for example, in that they are dynamic in nature and are associated with the activity of investment. Viner's pecuniary external economies would present no problem for price theory in a well integrated economic system because they are fully exploited by the beneficiaries and are, therefore,eliminated in the long-run. In the context of developing countries, however, pecuniary external economies of the Scitovsky's type, or the vertical and horizontal type spoken of by Fleming,[4] are extremely important and have been recognized to

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[1] H.S.Ellis and W.Fellner, "External Economies and Diseconomies," American Economic Review, XXX (Sept., 1943), pp. 493-511.

[2] F.M.Bator, "Anatomy of Market Failure," Quarterly Journal of Economics, LXXII (Aug., 1958), pp. 351-379.

[3] See the survey by E.J.Mishan, "Reflections on Recent Developments in the Concept of External Effects," The Canadian Journal of Economics and Political Science, XXXI (Feb., 1965), pp.3-34.

[4] J.M.Fleming, "External Economies and the Doctrine of Balanced Growth," Economic Journal, LXV (June, 1955), pp. 241-256.

be so in development economics.[1] It is precisely with these latter types of external economies that we are concerned here.

The essence of the external economies argument, then, is that current costs and prices are unsatisfactory for producing the best allocation of investment and by the same token for determining the best pattern of international specialization. If current market prices are not a greatly relevant indication for determining future investment opportunities, especially in the context of imperfect knowledge prevalent in underdeveloped countries, the implicit considerations for international trade are of vast importance. Since there is considerable evidence in the literature on economic development that external economies, because of internal economies of scale, training effects, and high demand elasticities, are more important in industry than in primary production,[2] the assumption of the absence of external

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[1] H.B.Chenery,"The Interdependence of Investment Decisions," in The Allocation of Economic Resources, Essays in Honour of F.B.Haley, Moses Abramovitz et al.;(Stanford: Stanford University Press,1959), pp.82-120. P.K.Bardhan,"External Economies,Economic Development and the Theory of Protection," Oxford Economic Papers, XVI (March,1964), pp.40-54. Chenery presents empirical evidence of economies of scale in machinery, transport, equipment, etc., in his "Patterns of Industrial Growth," American Economic Review, L (Sept.,1960),pp.624-654.

[2] H.B.Chenery,"The Interdependence of Investment Decisions,", T.Scitovsky, op.cit.; P.N.Rosenstein-Rodan,"Notes on the Theory of the 'Big Push'," in H.S.Ellis,ed.,Economic Development for Latin America; (London: MacMillan,1961),pp.57-81. R.Nurkse, Problems of Capital Formation in Underdeveloped Countries;(Oxford: Basil Blackwell,1953) H.Liebenstein, Economic Backwardness and Economic Growth;(New York: J.Wiley & Sons,1957). H.W.Singer,"The Distribution of Gains between Investing and Borrowing Countries," American Economic Review, XL (May,1950),pp.473-485.W.A.Lewis,The Theory of Economic Growth; (London: Allen & Unwin, 1955).

economies in the market mechanism is likely to bias resource allocation against the industrial sector with consequent repercussions on the underdeveloped countries' comparative advantage. The argument might therefore be used to support a movement away from the free trade position in favor of general protection for industry, in addition to a planned approach for the economy.

These considerations have not received the attention deserved in the theory of international trade. Haberler, Viner, and other theoreticians of international trade have repeatedly emphasized that effective examples of external economies have been rare.[1] Theory has not totally ignored the concept of external economies. The divergencies between social and private marginal productivities, and between marginal and total conditions have been clarified by Haberler and Tinbergen while examining Graham's muddled protectionist arguments.[2] But these and other writers are doubtful of the reality and significance of external economies and have treated the matter as a possible, but not very important aberration. Viner, for example, after conceding a "conceivable" case for protection

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[1] G.Haberler, International Trade and Economic Development; (Cairo: National Bank of Egypt, 1959). Also his "Terms of Trade and Economic Development," in H.S.Ellis, ed., Economic Development for Latin America; (London: MacMillan, 1961), pp.275-301. J.Viner, International Trade and Economic Development; (Glencoe: Illinois Free Press, 1952). Also his "Stability and Progress: The Poor Countries' Problem," in Stability and Progress in World Economy, D.Hague, ed.; (London: MacMillan, 1958), pp. 41-65.

[2] G.Haberler, "Some Problems in the Pure Theory of International Trade," Economic Journal, LX (June, 1950), pp.223-240. J.Tinbergen, International Economic Cooperation; (Amsterdam: Elsevier, 1945).

on the basis of external economies, concludes that this is "little more than a theoretical curiosity"[1] and that "the scope for the application of the argument is extremely limited".[2]

Some of the unwillingness to recognize the practical importance of external economies stems from confusing different concepts of the latter. Those who play down their importance conceive of them as minor deviations from the static optimum allocation of resources; those who stress their importance in the setting of the present-day underdeveloped countries associate them with the structural and dynamic problems of investment and commercial policy. The literature on economic development has shown convincingly that external economies play an important role in the process of economic development. As noted, Rosenstein-Rodan, Chenery, Nurkse, and others have underlined the importance of complementarity in investment through interdependent "input-output" industries.

The occurrence of external economies has occupied a position of considerable importance in the "balanced" versus "unbalanced" growth controversy. The writings of the most eminent economists participating in this debate, both those who expound balanced growth (Nurkse, Rosenstein-Rodan, W.A.Lewis) and those who oppose it (A.O.Hirschman, P.Streeten), have tended to intensify the attack on trade as an agent of development.

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1 J.Viner, Studies in the Theory of International Trade;(New York: Harper & Row, 1937), pp. 480-481.

2 Ibid., pp. 478-479.

The balanced growth doctrine was originally formulated in the framework of a closed economy. Building on Young's description of the development process, Nurkse theorized that in underdeveloped countries rapid growth must come from the simultaneous expansion of a number of industries, benefiting both from external economies on the supply side and from the simultaneous expansion of demand.[1] According to him, because of the small size of the market, which accounts for the "vicious circle of poverty", small doses of investment would be unable to break the vicious circle. Nurkse also stressed the need for balance between industry and agriculture.[2] Rosenstein-Rodan went further by proposing that nothing short of a comprehensive and integrated investment program would be effective.[3]

If underdeveloped countries are considered within the framework of the world economy, what are the implications of the balanced growth approach with respect to international specialization? Nurkse believes that the benefits deriving from international specialization and those deriving from balanced growth could be reconciled. He states that the "concept of balanced growth.... is not.... an argument for autarky. There is room for home market expansion without reducing the volume of foreign

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1 Nurkse, op.cit., chap.1.

2 Ibid., chap.2.

3 Rosenstein-Rodan, op.cit.

trade".[1] He sees balanced growth more as a complement than as a substitute for international trade.[2] This, according to him, is true especially if one takes into account the existence of transport costs. The existence of transport costs prevents complete specialization and hence provides scope for balanced investment without prejudice to international trade. Although Nurkse recognizes that the pursuit of balanced growth would in some degree benefit from a measure of import restrictions, he sees the limitations of import-restriction and import-substitution policies. He cautions against excessive use of these policies because they may lead to costly and inefficient production and have an adverse effect on real income. He stresses that balance may, but need not refer to the whole economy. Actually, foreign trade can be construed as providing an opportunity of escaping complete internal balance. To the extent that imports can be substituted for domestic production, balance can be obviated by importing those goods produced by industries where external economies are small and by investing more heavily in those industries where they are large, especially overhead capital.

Other writers who favor balanced growth express their position with respect to trade differently, but none deny its beneficial

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[1] R.Nurkse, "International Trade Theory and Development Policy," in Economic Development for Latin America, H.S.Ellis,ed.;(London: MacMillan,1961),pp.234-263. Also,Problems of Capital Formation...., chap.1.

[2] Nurkse, "International Trade Theory and Development Policy," p. 252.

effects or advocate autarky. To W.A. Lewis, for example, balanced growth means "a proper balance between industry and agriculture, and between production for home consumption and production for export".[1] His interpretation of balance implies both a larger potential role for trade and a lesser emphasis on the simultaneous expansion of domestic manufactures as an alternative to trade.

The doctrine of balanced growth has been the object of several criticisms. H. Singer has stated that the advantages of simultaneous development on many fronts may make interesting reading for economists, but are viewed with skepticism in underdeveloped countries.[2] The initial resources for simultaneous development on many fronts are generally lacking. He wonders why they should remain underdeveloped if they could mobilize so many resources. On the same ground Myint has argued that the Big Push theory evades the crucial economic choices between present and future incomes.[3] He fears that the theory attempts to push developing countries too far beyond their currently available resources and organizing ability.

The doctrine of balanced growth has been severely criticized

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1 W.A.Lewis, The Theory of Economic Growth, op.cit., p.283.

2 H.W.Singer, "Economic Progress in Underdeveloped Countries," Social Research, (March,1949),pp.7-8. Also his "The Concept of Balanced Growth and Economic Development: Theory and Facts," in Conference on Economic Development; (University of Texas, April, 1958), p.10.

3 H.Myint, The Economics of the Developing Countries; (London: Hutchison University Library, 1964), pp. 126-127.

by Hirschman and others, who advocate, rather, a theory of investment consisting of a chain of disequilibria in which the basic problem is to relate the forward and backward effects of investment.[1] The effectiveness of investment would be assessed in terms of its contribution to facilitating the ability to undertake further investment. Investment decisions would be based on the creation and subsequent exploitation of backward and forward linkages. The policy of deliberate creation of bottlenecks and excess capacities would leave considerable scope to induced investment decision thereby economizing the main scarce resource in underdeveloped countries, namely entrepreneurship.[2] Hirschman also believes that apart from raising the supply elasticities of scarce factors, such imbalance stimulates the process of learning and innovation. An ideal situation obtains when disequilibrium in turn leads to a similar disequilibrium and so on ad infinitum. Hirschman maintains that, in such a situation, private profitability and social desirability are likely to coincide, "not because of the absence of external economies but because 'input' and 'output' of external economies are the same for each successive venture".[3] This theory of deliberate unbalanced development,

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[1] A.O.Hirschman, The Strategy of Economic Development; (New Haven: Yale University Press,1958). Also, P.Streeten, Economic Integration: Aspects and Problems; (Leyden: Sythaff, 1951). Also, his "Unbalanced Growth," Oxford Economic Papers, XI (June,1959), pp. 167-190. Also, Colin Clark, The Conditions of Economic Progress, (3rd. ed.; New York: St Martin's Press, 1957).

[2] Hirschman, op.cit., pp. 63-64.

[3] Ibid., p.72.

while directly opposite to that of balanced growth with respect to the sequence of investment, recognizes indivisibilities and complementarities just as much as its balanced growth counterpart; it belongs in the same category in the sense that investment decisions are not left to the market mechanism, but are undertaken following a planned policy. Hence comparative advantage would not necessarily coincide with that predicted by the traditional theory of international trade. Hirschman has argued that the obstacles to the spread of forward linkage effects from the enclave export industries are far more formidable than those inhibiting the enclave import industries. Consequently, he favors a policy of "pre-natal" protection for import replacing industries.[1] It follows that when faced with a situation of inelastic external demand, market imperfections, and dynamic external economies, underdeveloped countries may have to pursue a policy which is drastically different from the classical prescription of international specialization. As argued by Scitovsky and others, a diversified industrial program may have to be promoted through a policy of permanent protection which might exploit the external economies generated by the protected industries. This would raise the marginal efficiency of investment, thereby narrowing the gap between private and social productivity.[2]

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1 Ibid., pp.120-125.

2 T.Scitovsky,"A Reconsideration of the Theory of Tariffs," Review of Economic Studies, IX (Summer,1942),pp.89-110. K.W.Rothchild, "The Small Nation and World," Economic Journal, LIV (April,1944), pp.26-37. B.N.Gangouli,"Principles of Protection in the Context of Underdeveloped Countries,"Indian Economic Review, I (Feb,1952), pp. 21-28.

The infant industry argument for protection, considered for a long time the sole valid exception to the free trade conclusion, can be stated in terms of external economies; indeed it could be considered as an important particular case of the general external economies argument.[1] The classical infant industry argument was advanced by A.Hamilton, F.List, and C.F.Bastable, and was recognized by J.S.Mill as applicable to the problems of developing countries. It has been explained as consisting of two main branches, the broad and narrow arguments.[2] The broad argument treats infant industry as the whole industrial sector, while the narrow argument employs the term narrowly in the sense of one specific industry.

According to the broad argument, at a given rate of return on investment, insufficient resources are invested in industry because the rate of return understates the social desirability of investment in this sector. This argument implies the existence of external economies of the dynamic type discussed above. The narrow argument is concerned with the process which enables a particular industry to lower the average cost of its output over time if given sufficient temporary protection to allow this process

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[1] H.Myint, "Infant Industry Arguments for Assistance to Industry in the Setting of Dynamic Trade Theory," in R.Harrod and D.C.Hague eds., International Trade Theory in a Developing World; (London: Macmillan, 1963), pp. 173-193.

[2] H.G.Grubel, "The Anatomy of Classical and Modern Infant Industry Arguments," Weltwirtschafthiches Arkiv, XCVII (No.2, 1966), pp. 325-342.

to go on. In this case, most external economies resulting from the expansion of this industry would become internalized. One exception would be the learning process involved, if the acquired skills were freely available to any entering firms.[1] Ultimately this learning process is the most significant justification for the protection of the infant industry, provided that the industry protected can turn in profits at least sufficient to be able to repay with interest the subsidy implied in protection.[2] This narrow argument is not considered very relevant for underdeveloped countries because an industry often consists of only one firm, and even when there are several firms, external economies usually go beyond a particular industry thus benefiting the whole industrial sector. The case for infant-industry protection, therefore, is very easily extended to a plea for protection of the infant industrial sector rather than of some infant industries, although there is still room for discrimination in the sense that some industries will require greater protection because they generate greater external economies. Kaldor, on the other hand, believes that a uniform tariff on imports of all manufactures is more efficient since it preserves the selective principle of comparative advantage and still protects the infant industrial sector.[3] This

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[1] M.C.Kemp, "The Mill-Bastable Infant-Industry Dogma," The Journal of Political Economy, LXVIII (Feb., 1960),pp.65-67. Also his The Theory of International Trade; (New Jersey: Prentice-Hall,1964), pp. 186-187.

[2] Kemp, "The Mill-Bastable Infant-Industry Dogma," pp. 65-67.

[3] N.Kaldor, "Conferencias Sobre Desenvolvimento Economico," Revista Brasileira de Economia, VI (March,1957),pp. 28-29.

is especially important if one recognizes the practical difficulty of selecting genuine infant industries in so far as this entails forecasting cost conditions and the magnitude of external economies.

The most serious objection that can be raised against the infant-industry argument, indeed against the whole external economies argument, is that if market forces cannot be trusted to allocate investment in the manner most conducive to growth, this objective could be achieved by the use of more efficient alternatives. H.G.Johnson, among others, has shown that infant-industry and external economies argument for protection are really arguments for domestic taxes and subsidies.[1] The use of subsidies instead of tariffs has the advantage of avoiding the loss of consumer surplus associated with the tariff. Furthermore, the subsidy is a constant reminder to society of the cost it is incurring while the industry is in its infant stage and is, therefore, more likely to come under scrutiny and be subject to review. The use of subsidies, however, may be objectionable to those developing countries who use tariffs for the double purpose of protecting their industries and raising revenue. This is a common case in underdeveloped countries.[2] In this case the govern-

[1] H.G.Johnson,"Tariffs and Economic Development: Some Theoretical Issues," The Journal of Development Studies, I (Oct.,1964),pp.3-30. Also, J.Bhagwati and V.K.Ramaswami,"Domestic Distorsions, Tariffs and the Tneory of Optimum Subsidy," Journal of Political Economy, LXXI (Feb., 1963), pp.44-50.

[2] S.R.Lewis Jr., "Government Revenue from Foreign Trade: An International Comparison," The Manchester School of Economic and Social Studies , XXXI (1963), pp. 39-46.

ment of developing countries would have to forego revenue from tariffs as well as pay the subsidy. Furthermore, protection may be more effective than a subsidy in attracting foreign investment in import-substitution industries if foreigners are willing to take advantage of the protection tariff.

B - Factor Disequilibrium

The external economies argument, as we have seen, is really a dynamic argument and this may explain why the traditional theory of international trade, which is basically static in nature, cannot accommodate it very well. There is another argument, however, which attempts to show that some form of protection is preferable to free trade and which is essentially static, even though it can also be expressed in dynamic terms. This argument is associated mainly with the names of Manoilesco, Nurkse, W.A.Lewis, and E.E.Hagen.

The argument begins with the observation that in underdeveloped countries (and in some developed ones as well) average income is higher in the advanced sector, be it industrial, commercial, or plantation, than in the rural sector. Manoilesco and his more modern followers have concluded that this provides an argument for encouraging labor to move out of agriculture to industry. Manoilesco, furthermore, used the case as an argument for protection of manufactures, claiming that low wages did not argue for extensive specialization in the more labor-intensive agriculture, as

would be prescribed by the theory of international trade, but quite the contrary.[1] Much of the labor in agriculture, he contended, was marginally unproductive, even though it was paid a return, and anything which it would produce in manufacturing would be a net gain. Protection of manufactures which stimulated output in this sector, therefore,would shift labor from agriculture into industry and would increase total net product by taking underemployed labor into efficient employment. This view is in opposition to the classical conclusion that increased production in agriculture and exchange of output abroad for the manufactures produced by capital rich countries by capital-intensive methods would yield a higher overall return.

The Manoilesco argument is based on the disparity between private and social costs. Factor prices in various parts of the economy may fail to reflect social marginal product even though they may accurately reflect efficiency in a private sense. The existence of underemployment or disguised unemployment in the agricultural sector brings about a condition in which private costs, on the basis of which comparative advantage calls for specialization in and export of agricultural products and imports of manufactures, are unrepresentative of social costs. In the agricultural sector private return overstates its social efficiency, while in industry social return is understated by the

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[1] M.Manoilesco, The Theory of Protection and International Trade; (London: P.S.King, 1931).

market. Accordingly, Manoilesco recommended a tariff on imports of manufactures in order to assist the transfer of labor from underemployment in agriculture to employment in industry thereby bringing private marginal products more in line with the social ones.

This argument is formally correct within the framework of static optimum analysis. Somewhat different versions that are based on domestic distortions in factor use, and which also contain dynamic elements have been advanced. W.A.Lewis,[1] Nurkse,[2] and others[3] suggested that because of the existence of large pools of underemployed surplus labor in the rural sector of underdeveloped countries, marginal productivity of labor in this sector is zero or negligible, even though the rural workers all received a wage equal to the average product in that sector. In other words, in the rural sector the "shadow" wage is zero but the market wage is positive. In the version given by Lewis and Nurkse, labor is defined in terms of workers. Subsequently, Sen and Myint have pointed out that labor would be more properly

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1 W.A.Lewis, "Economic Development with Unlimited Supplies of Labour," Manchester School of Economics and Social Studies, XXII (May, 1954), pp. 139-191. Also, "Unlimited Labour: Further Notes," Same Journal, XXVI (Jan., 1958), pp. 1-33.

2 Nurkse, Problems of Capital Formation..... op.cit.

3 G.Ranis and J.C.H.Fei, Development of the Labor-Surplus Economy: Theory and Policy; (Homewood: Richard D. Irwin, 1964). L.G.Reynolds, "Economic Development with Surplus Labour: Some Complications," Oxford Economic Papers, XXI (March, 1969), pp. 89-103.

defined in terms of manhours rather than workers.[1] Using this definition, the marginal product of labor is zero when the marginal utility of leisure to the workers is also zero or constant over the relevant wage.[2] Sen also shows that surplus labor could exist in an underdeveloped country even if the marginal productivity of labor in agriculture were not zero but positive.[3] Using his own definition of labor and assuming its marginal product to be zero, Lewis argues that if the comparative-cost ratios were expressed in marginal terms instead of in terms of average costs, an underdeveloped agricultural country should specialize in manufacturing rather than in agriculture.[4] But since in actual practice wages are paid according to average productivity, an underdeveloped country ought to protect its

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1 A.K.Sen, A Choice of Techniques, (3rd. ed.; Oxford: Basil Blackwell, 1968), chap. 1. Myint, The Economics of Developing Countries, op.cit., p. 86.

2 A.K.Sen, "Peasants and Dualism with or without Surplus Labor," Journal of Political Economy, LXXIV (Oct., 1966), pp. 425-450.

3 Ibid., p. 431.

4 Lewis, "Economic Development with Unlimited...." op.cit., pp. 176-189. Comparative-cost ratios are expressed in terms of average costs in traditional theory because of the assumption of constant costs. It has long been recognized, however, that when increasing or decreasing costs prevail, the comparative cost ratios must be expressed in terms of marginal costs. See R.E.Caves, Trade and Economic Structure; (Cambridge: Harvard University Press, 1963), pp. 160-174.

manufacturing industry.[1]

More recently, E.E.Hagen has advanced a variant of this argument. In his study he found that real wage rates for labor of equal quality were greater in industry than in agriculture.[2] Money wage rates were certainly higher, disregarding differences between urban and rural ways of life. His theory is based on the observed fact that, in any economy in which per capita income is rising secularly, the output of the mining and manufacturing sectors grows faster than that of the agricultural sector. As a result of this secular trend, excepting the unreal case where perfect geographical and occupational mobility exist, wages in industry and mining must be higher than in agriculture even in the long-run and even assuming complete absence of monopoly in all markets. Otherwise industry could not obtain the necessary incoming stream of labor. If industry offered the same real wage as the subsistence sector, the labor could not be attracted to industry. To induce rural workers to adopt the new urban way of

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[1] Somewhat different, though also based on factor imperfections is the argument made by Myint, according to which foreign enterprise which gives rise to international trade produces an initial productive change in technology and specialization, but tends to freeze the domestic factors at their initial productivity and rate of return. See H.Myint "The Gain from International Trade and Backward Countries," Review of Economic Studies, XXII (June, 1955), pp.129-142. Myint's argument may well apply to plantation agriculture, but this technological fossilization need not necessarily occur in all exports of primary production. This is a question of forward and backward linkages on the one hand, and the capacity to respond to stimuli such as social attitudes on the other.

[2] E.E.Hagen, "An Economic Justification of Protectionism," Quarterly Journal of Economics, LXXII (Nov., 1958), pp. 496-514.

life and industrial work habits a considerable premium must be added to the subsistence wage. Thus the private transfer wage of rural surplus labor to industrial employment exceeds its true social opportunity cost which is determined by its marginal product in agriculture which is very low and possibly equal to zero.[1] As a result of the wage disparity, those manufacturing industries that in the absence of this disparity would have a real comparative advantage, will be priced out by imports. In Hagen's view, therefore, they require protection or subsidization.[2] The protection would permit such industries to exist, thereby increasing the total income in the economy. Koo criticizes Hagen's empirical evidence; his figures show that the difference in the real wages for workers of comparable skill in industry and in agriculture may not be so great. He concludes, however, that even the smaller difference warrants some measure of protection.[3]

The argument is formally correct and rests essentially on differing sets of factor proportions in different sectors of the dual economy. Bhagwati has shown that as a consequence of the structural disequilibrium in the factor market, production occurs

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[1] Even if the actual wages were equal in both sectors, the market wage would diverge from the social cost of labor because the marginal productivity of labor in agriculture is zero, or at least below the average product, while the cost to industrialists of hiring the surplus labor is considerably higher.

[2] Hagen, op.cit., p. 497-498.

[3] A.Y.C.Koo, "An Economic Justification of Protectionism: Comment," Quarterly Journal of Economics, LXXV (Feb., 1961), pp.133-144.

on an inferior production possibility curve below the maximum production frontier, resulting in the selection of a suboptimal position on the inferior transformation curve because of the divergence of the private and social costs.[1] Since the marginal product of labor is greater in the advanced than in the rural sector, while industrial wages exceed agricultural wages for labor of equal quality, industry, it is argued, should be protected to overcome the excessive wage differential so as to encourage labor to move out of agriculture into industry. This would bring private costs in line with social costs, with the result that the total income will be greater than in a free trade situation.

How significant is the argument, however? To begin with, there are a number of qualifications to be made which reduce considerably its range of application. Insofar as the argument is based on the existence of large pools of disguised unemployed labor in the agricultural sector, it will not be applicable to the sparsely populated underdeveloped countries in Latin America and Africa. This is often forgotten by those who advocate this policy because they assume the existence of surplus labor in all underdeveloped countries.[2] Furthermore, as W.A.Lewis admits, disguised

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[1] J.Bhagwati, "The Development of Trade Theory in the Context of Underdeveloped Countries," in A.K.Das Gupta, ed., Trade Theory and Commercial Policy; (New York: Asia Publishing House, 1965), pp.7-26. Also his "The Theory of Comparative Advantage in the Context of Underdevelopment and Growth," Pakistan Development Review, II (Autumn, 1962), pp.339-353.

[2] G.Myrdal, An International Economy; (New York: Harper & Row, 1956), p. 278.

unemployment may occur for peasant and self-employed labor, but not for plantation labor.[1] Even in densely populated underdeveloped countries it is difficult to estimate with any degree of confidence the extent of surplus rural population. Claims that such unemployed labor is a vast hidden source of potential industrial workers, which can be removed from the land at little or no cost in terms of decreased agricultural product can be easily exaggerated.[2] Conclusive evidence which shows that there is actually a substantial amount of labor in agriculture that could be released with no effect on production is rarely offered.[3] Viner attributes the observed gaps between urban and agricultural wages in part to rational considerations and "net advantages" which have not been fully taken into account.[4] Many economists notably Haberler, Viner, and Myint, have questioned the very concept of disguised unemployment.[5] Successful mobilization of labor, they

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1 Lewis, The Theory of Economic Growth, op.cit., pp.326-327. Also his "Economic Development with Unlimited Labour," op.cit.,pp.141-142. Lewis claims that disguised unemployment exists also among hired agricultural labor, although in a lesser degree than for self-employed labor.

2 D.Warriner, Land Reform and Economic Development; (Cairo: National Bank of Egypt, 1955), pp. 25-26.

3 H.T.Oshima "Underemployment in Backward Economies: An Empirical Comment," Journal of Political Economy, LXVI (June,1958),pp.259-264.

4 J.Viner, International Trade and Economic Development; (Glencoe: Illinois Free Press, 1952), pp. 47-49.

5 G.Haberler,"Critical Observations on Some Current Notions in the Theory of Economic Development,"L'Industria,No.2,(1957),pp.3-5.Reprinted in G.M.Meier,ed.,Leading Issues in Economic Development; (New York: Oxford University Press,1964),pp.77-79.Also his International Trade and Economic Development; (Cairo:National Bank of Egypt, 1959),pp.25-27. J.Viner,"Some Reflections on the Concept of Disguised Unemployment,"in Contribuicoes a Analise de Desenvolvimento Economico (Rio de Janeiro,1957). Reprinted in G.M.Meier,ed., Leading Issues...., pp.79-83. Myint,The Economics of Developing Countries,op.cit.,pp.85-101.

point out, presumes many things. Apart from the fact that it is conditional upon suitable schemes being devised in areas allegedly abounding with surplus labor, the utilization of this labor on any significant scale is not possible without complementary tools, capital equipment, and raw materials, as well as suitable organization. Measures have to be taken, therefore, to increase the supplies of the latter perhaps by importing them; this may result in a drain of foreign exchange and cause balance of payments difficulties. Furthermore, even if an unlimited supply of unskilled labor is assumed to exist, it is generally true that in poor countries skilled labor is in very short supply. Lewis recognizes this problem, but discounts its importance by considering it to be only a temporary bottleneck which can be removed by providing facilities for training more skilled labor. This, however, does not fit well with the recent experience in developing countries which indicates that problems of skill formation are difficult to overcome. As Kafka has also pointed out, output in the advanced sector may be limited by the scarcity of capital and management rather than by the scarcity of labor, and that, consequently, output would not necessarily increase if the price of manufactures rose, or if the real wage in the industrial sector fell.[1] In this case, protection would simply increase the profits of the industrialists. A portion of the increase might possibly

[1] A. Kafka, "An Economic Justification of Protectionism: Further Comments," Quarterly Journal of Economics, LXXVI (Feb., 1962), pp. 163-166.

be shared with the industrial workers, but only at the expense of the already poor rural sector which has to pay higher prices for the protected goods.

The argument, moreover, fails to take into account the possibility that the exact opposite situation might exist in the capital market; that is, private cost may be below social cost in manufacturing, and above social cost in agriculture. It has been recognized that in underdeveloped countries rates of interest are much higher in the rural than in the industrial sector, indicating that capital is overvalued in the agricultural sector.[1] To the extent that this is true, the whole argument may be reversed. Whether manufacturing costs as a whole are more or less overvalued than agricultural costs will depend on the relative magnitude of the wage and interest disparities in the two sectors. Consequently, part of the qualification to the theory of comparative advantage is offset. The effects of higher interest rates in the rural sector may offset to a great extent the effects of higher wages in the industrial sector. In this case the protectionists might argue that the best policy would be to still protect the industrial sector but, at the same time, to increase credit to the rural sector and extend it at better terms. This, however, besides being possible only if a particular underdeveloped country has the required financial resources, may add inflationary

[1] Myint, "Infant Industry Arguments in the Setting of Dynamic Trade Theory," op.cit., p. 178.

pressure on prices in countries that are already plagued by inflation. Finally, as Schultz indicates, it seems that programs based on the various theories of surplus labor have not produced the expected results.[1]

What emerges from the debate is the desirability of using all the resources at the disposal of underdeveloped countries in a more efficient way. This goal is frustrated by the numerous impediments to spatial and occupational mobility. Caste, racial, religious and other attitudes are difficult to break down and the ties that bind the peasant to the land and to his place of birth are difficult to loose. Protection of the industrial sector is seen by some as a means to achieve this goal. This has been by no means conclusively demonstrated, however. Even assuming for the sake of argument that disguised unemployment does exist, or that there is a genuine overevaluation of labor in the industrial sector due to surplus labor or to the mechanism posited by Hagen, or to some other cause, it still does not follow that protection is the best policy. Even Hagen states that "a subsidy per unit of labour equal to the wage differential between the industrial and agricultural sectors will increase real income further than protection, and if combined with free trade will permit attaining an optimum optimorum".[2] Instead of resorting to

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[1] T.W.Schultz, The Economic Test in Latin America; (New York State School of Industrial and Labor Relations, Cornell University, Bulletin 35, Aug., 1956), pp. 14-15.

[2] Hagen, op.cit., p. 148.

tariff barriers, moreover, other measures might prove more effective in stimulating labor mobility, in merging factor markets, and in equalizing factor prices. As seen by Nurkse, if surplus labor exists, it might be viewed as a source of domestic investment potential to be used in such activities as road construction, land reclamation, irrigation canals, and so forth, especially rural overhead capital.[1] There is no sense in pursuing industrialization for its own sake, or because "manufacturing industry represents, in a sense, a higher state of production"[2] since, among other things, the existence in any country of a large and affluent urban population presupposes a highly productive agricultural sector. As Hagen admits, the alleged divergence in the rates of transformation between agricultural and industrial products and the market price ratios can be more directly and effectively rectified by subsidizing rather than protecting the manufacturing activity. The type of distortion analyzed by Hagen is caused by an intersectoral wage differential. In other words, the rate at which labor and any other factor can be substituted for each other in different lines of production is not the same

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1 R.Nurkse, "Stabilization and Development of Primary Producing Countries," Kyklos, (1958), pp. 261-262. Also, his "The Conflict between 'Balanced Growth' and International Specialization," in Lectures on Economic Development; (Istanbul: University of Istanbul, 1958).

2 Myrdal, op.cit., p. 226.

at the margin. Now, Johnson[1] and Bhagwati and Ramaswami[2] have shown that a tax or a subsidy on factor use is the optimal policy when this type of domestic distortion exists. This is so because the type of distortion referred to by Hagen introduces two kinds of inefficiencies. First, it affects the production possibilities in the economy, that is, the economy operates on a suboptimal transformation curve. Secondly, it causes the social marginal rate of transformation between agriculture and industry to differ from the market price ratio. Now, protection cannot remedy either of these inefficiencies. On the other hand, a subsidy on factor use will help rectify both of the inefficiencies. As pointed out in the previous section, this type of action is difficult to follow in the case of countries for whom tariffs are a considerable source of revenue and which do not have sufficient financial resources to pay subsidies. Even in the general case, the superiority of subsidies over protection usually follows from the implicit assumption that subsidies impose no additional cost on the economy. Subsidies may have to be financed through additional taxation, however. Protection also involves a cost, but it is usually not visible. Thus governments in underdeveloped countries may find it more expedient to use protection than to give subsidies.

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1 H.G.Johnson, "Optimal Trade Intervention in the Presence of Domestic Distortions," in R.E.Caves, H.G.Johnson, and P.B.Kenen, eds., Trade, Growth and Balance of Payments; (Chicago: Rand McNally, 1964), chap.1.

2 Bhagwati and Ramaswami, op.cit., pp. 44-50.

C - Towards a Dynamic Trade Theory

A fundamental objection to the relevance of the conclusions of international trade theory concerns the adequacy of the theory to deal significantly with the dynamic problems of development. The theory of international trade, which has grown out of classical thought, has evolved from static theory of value. This is especially true of the neoclassical, marginalist version of the theory, which runs in terms of equilibria, stability conditions, elasticities, and so forth. Frank Knight went so far as to dismiss international trade as a separate field of study. While this view is extreme and is rejected by most economists, notably Marshall, Haberler, Taussig, and Viner, it cannot be denied that the theory has remained essentially static in nature. For this reason, international trade theory is able to explain the prices of internationally traded commodities, the pattern of trade, and the superiority of trade over autarky only for a world in which all the data are given. In order to demonstrate the gains from trade to two economies trading on the principle of comparative advantage, the neoclassical version of the theory of international trade runs in terms of production opportunity costs and consumer preference patterns; it abstracts from any process of change and excludes the time element. Its basic assumptions clearly define its static character, the most important of these being given quantities of resources, given state of technology (assuming, as Taussig puts it, "a given state of the arts"),

full employment of resources, international immobility of productive factors, and given patterns of consumer tastes and preferences. Within the rigid framework of this set of assumptions, the pure theory of international trade establishes the optimum conditions for production, allocation of resources, international exchange, and economic welfare. Under these conditions, the theory offers uniquely determined solutions to the problems of trade, specialization, and economic welfare, in a given situation. The gains from trade will be greater, the greater the difference between conditions in both countries with respect to demand for tradeable products, factor proportions, and technological coefficients of production for different goods. The determination of the maximum gains from trade is possible only within the framework of this static equilibrium analysis, consisting simply of a comparison of static equilibrium positions before and after trade. As Nurkse states, "the traditional theory of international specialization centers on the comparison of a trading situation with a no-trading situation, and on the demonstration of the superiority of the former over the latter".[1] This, however, according to the critics, amounts to an explanation of the pattern of international trade and value in a world in which there is no economic development. Economic development means continuous significant structural changes in the productive abilities of the countries concerned

[1] R.Nurkse, "International Trade Theory and Development Policy," in H.S.Ellis, ed., Economic Development for Latin America; (New York: St. Martin's Press, 1961), pp. 235.

because of changes of factor supplies, production functions, technology, and organization of production, as well as changes in preference patterns. It is easy to conclude, the critics say, that the theory of international trade is highly unsuitable to contribute to the solution of the problems of development and that, therefore, its conclusions are irrelevant as a guide for commercial policy in underdeveloped countries.

Friedrich List attacked the classical theory in the nineteenth century for being "unhistorical and static". J.H.Williams criticized the comparative cost doctrine for being only a timeless "cross-section" analysis and merely a "significant part of the explanation of the present status of nations, of incomes, prices, well being... with its assumptions of given quanta of productive factors already existent and employed".[1] While stating the case for the doctrine in terms of its relevance for efficient allocation of productive resources, Nurkse notes its lack of clarity with respect to the development of low-income countries.[2] Myrdal has voiced this criticism of the traditional theory and has demanded its replacement by a dynamic theory.[3] In the recent past, when economic development has become more and more the main concern of economists, the international trade theorists have spent

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[1] J.H.Williams, "The Theory of International Trade Reconsidered," Economic Journal, XXXIX (June, 1929), p. 196.

[2] Nurkse, op.cit., p. 235

[3] G.Myrdal, Development and Underdevelopment; (Cairo: National Bank of Egypt, 1956).

much time and energy in analyzing and refining the theorem of factor price equalization, even though they were aware of its great limitations with respect to its practical applicability and relevance, to the point that the theorem has been called little more than an "intellectual curiosity".[1] Its very exponents were careful to indicate the limitations of its applicability by emphasizing the formidable set of restrictive assumptions upon which its conclusions rested, to the point that one would have been rather surprised if the contrary, namely that factor prices will not be equalized in practice, had not occurred. Perhaps the insistence in pursuing this sophisticated but, in terms of relevance to policy, sterile debate stems from the attitude which, according to A.Smithies, modern theoreticians have adopted. The classical economists, he has written, tended to link international trade theory with questions of policy. Instead, "The neo-classical and modern theorists of the 'pure' variety have tended progressively to divorce their theory from the requirements of practical policy. In fact, the current fashion is to regard policy questions as somewhat beneath the pure theorist".[2] Much energy and time were spent in this direction while international trade theory could hardly look farther than the confines of neoclassical static analysis. Linder has commented that the

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[1] For example, C.P.Kindleberger, International Economics, (Third edition; Homewood: Richard D. Irwin, 1963), p. 100.

[2] A.Smithies, "Modern International Trade Theory and International Policy," American Economic Review, XLII (May, 1952), p. 168.

Heckscher-Ohlin model has perhaps aroused so much interest in theoreticians that the analysis of distribution has experienced delays longer in international trade theory than in any other theoretical sector, where the development aspects are being examined for more than a decade.[1] Against the theorem of factor price equalization, Myrdal has juxtaposed a theory of "cumulative causation" whereby the gap in the return to factors tends to widen between the advanced and the underdeveloped countries rather than diminish.[2] Even if one does not subscribe to Myrdal's "cumulative process", the factor-price equalization theorem has undoubtedly received much more attention than it deserves. Perhaps it would be wiser to accept the original opinions of Heckscher and Ohlin to the effect that trade will bring a tendency towards equalizing the rate of return to factors, while recognizing equalization as a strictly theoretical limit.

Exception could be taken to most or all of the assumptions underlying the static trade model. Nurkse has pointed out to the operation of the demonstration effect as a result of trade and communication, thereby showing the unreality of the assumption that tastes are identical before and after trade.[3] The demonstra-

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1 S.B.Linder, An Essay on Trade and Transformation; (New York: John Wiley, 1961), p. 16.

2 Myrdal, An International Economy, op.cit. Also, his Economic Theory and Underdeveloped Regions; (London: Duckworth, 1957).

3 Nurkse, Problems of Capital Formation....., op.cit., chap.3.

tion effect may operate in such a way as to increase the demand for imports, switching demand away from domestic goods. When the terms of exchange improve as a result of the opening up of trade, the process can be shown to result in unambiguous gain, if one leaves aside the distribution of the gain within the country and the difficulty in measuring the extent of the gain. But when the demonstration effect operates in an adverse way, the case is not clear and raises doubts about the classical conclusion of gain. The economist should qualify his identification of more trade with more welfare to take account of the fact that economic intercourse may bring with it a shift of demand away from the domestic product toward imported commodities. This is a problem that does plague underdeveloped countries to some extent. R.Robinson, following J.H.Williams, has made a fundamental attack on the theory of comparative advantage by analyzing the relation between international trade and the development of new resources and productive forces. He has suggested that the doctrine is more useful in explaining where the country has been than in indicating where it might go.[1] Factor endowments are not fixed. They change with technology and can be altered by international factor movements. Where trade opens up opportunities for capital formation or labor training and where imports of intermediate goods bulk large in relation to gross national product, trade explains factor endowments, rather than factor endowments explaining trade. In

[1] R.Robinson, "Factor Endowments and Comparative Advantage, Part I," Quarterly Journal of Economics, LXX (May,1956),pp.169-192; "Part II," Same Journal, (Aug.,1956), pp. 346-363.

other words, comparative advantage could result from trade as well as being a determinant of trade. This is a serious blow to the Hechscher-Ohlin trade theory. If we recognize, furthermore, that the production of goods depends not only on primary factors as assumed in the classical and neo-classical models but also on produced factors, that is, intermediate goods, we must admit that a large share of international trade takes place in intermediate products. The traditional theory, instead, has always been examined in terms of consumption goods. This is not the place to examine all the modifications which such a consideration would warrant to numerous theorems of the neo-classical theory of international trade. It is sufficient to note that the analysis of trade in intermediate goods is not only important in explaining the present-day pattern of international trade, but also that the commercial model of an underdeveloped country will undergo a structural change especially since intermediate goods form a large part of the exports of underdeveloped countries. The consideration of intermediate goods would introduce a dynamic element into the theory of trade and transformation.

Nobody could deny, therefore, that the theory of comparative costs is static, nor that attempts to introduce dynamic elements into it have been piecemeal and fragmentary. As Caves states,

> Unfortunately, most of the existing pieces of dynamic international trade are only dynamic fragments, patches of analysis compatible with any number of complete models. It would require a paper of considerable length to fill in all the blanks in these fragments, because they draw upon widely different sets of assumptions and therefore

> cannot be crammed into a few generic models without many loose ends sticking out.[1]

Those contributions introducing dynamic elements into the theory of international trade which have been made, according to Caves,

> have been dominated by the following key factors: (1) general economic growth of national income and/or population; (2) capital accumulation; (3) inter-regional factor movements; (4) technological change or particular production function properties; (5) the existence of monopoly and economic dominance; (6) diminishing returns or resource exhaustion.[2]

The mutual interactions between international trade and population or national income growth have been examined by Hilgerdt[3], Balogh[4], Gottlieb[5], and Verdoorn[6]. H.G.Johnson has produced a model relating trade and capital accumulation which extends the Harrod-Domar model of growth to international trade.[7] W.A.Lewis[8] and Bensusan-

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[1] Caves, Trade and Economic Structure, op.cit., p.244.

[2] Ibid.

[3] League of Nations, Secretariat; Economic, Financial, and Transit Department, Industrialization and Foreign Trade, (New York, 1945).

[4] T.Balogh, "The Concept of a Dollar Shortage," Manchester School of Economics and Social Studies, XVII (May,1949), pp.186-201.

[5] M.Gottlieb, "Optimum Population, Foreign Trade, and the World Economy," Population Studies, III (Sept, 1949), pp.160-162.

[6] P.J.Verdoorn, "Complementarity and Long-Range Projections," Econometrica, XXIV (Oct, 1956), pp.429-450.

[7] H.G.Johnson, "Equilibrium Growth in an International Economy," Canadian Journal of Economics and Political Science, XIX (Nov., 1953),pp.478-500. Reprinted in his International Trade and Economic Growth; (Cambridge: Harvard University Press, 1965),pp. 120-149.

[8] Lewis, "Economic Development with Unlimited Labour," op.cit., pp. 139-191.

Butt[1] have both constructed elaborate models that integrate capital accumulation and international trade, and provide a framework for historical analysis, especially in the early stages of growth. Meade has also presented a highly sophisticated, but essentially comparative static analysis of the effects of international migration of labor on the terms of trade.[2] We also have the Hicks-Johnson-Bhagwati analysis of the effect of technical progress on the international terms of trade.[3]

How significant are such contributions from the point of view of providing solutions to the problems of underdeveloped countries with respect to commercial policy? These efforts must be admired for their pioneering value in the attempt to reconcile the theory of growth and the theory of international trade. However, apart from the fact that in most cases these attempts have fallen short of providing a truly dynamic analysis of the time-path of the pro-

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[1] D.M.Bensusan-Butt, "A Model of Trade and Accumulation," American Economic Review, XLIV (Sept., 1954), pp. 511-529.

[2] J.E.Meade, The Theory of International Economic Policy, Vol.II: Trade and Welfare; (New York: Oxford University Press,1955),chap.27.

[3] J.R.Hicks, "An Inaugural Lecture," Oxford Economic Papers, V (June,1953),pp.117-135. H.G.Johnson, "Effects of Changes in Comparative Costs as Influenced by Technical Change," Malayan Economic Review, VI (Oct.,1961),pp.1-13. Also, his "Effects of Changes in Comparative Costs as Influenced by Technical Change," in R.F.Harrod and D.C.Hague, eds., International Trade Theory in a Developing World; (London: Macmillan,1963),pp.96-117. J.Bhagwati, "International Trade and Economic Expansion," American Economic Review, XLVIII (Dec.,1958),pp.941-943. See also, P.K.Bardhan, "A Short Note on Technical Progress and Terms of Trade," Oxford Economic Papers, XV (March,1963),pp.59-62; and R.Findlay and H.Grubert, "Factor Intensity, Technological Progress, and the Terms of Trade," Oxford Economic Papers, XI (Feb.,1959),pp.111-121.

cess of change, their relevance to the practical problems of commercial policy of underdeveloped countries is doubtful. The modern version of the theory, for example, considers the accumulation of capital in terms of lengthening of the "box diagram" and an application of the ingenious but futile Rybczynski Theorem. The Hicks-Johnson-Bhagwati analysis, on the other hand, has also limited importance with respect to underdeveloped economies because it is based on the Harrod-Domar ideas concerning the divergence between capacity development and the development of effective demand. A possible exception to this may be the analysis of the repercussions of technical change on the imports of developed countries. The extreme example of this analysis is Bhagwati's concept of "immiserizing growth".[1]

It would be erroneous and quite simplistic, however, to affirm that the theory of international trade is inadequate because it is static. It is true that the economies of most countries are changing and developing, and that what appears as data are in fact strategic variables constantly to be reckoned with in the international economy and that the theory should take account of this fact. But the static approach is not methodologically wrong. Within the postulated boundaries of a stationary economy, it is certainly permissable to freeze the pattern of basic economic data and derive the requirements of optimum trade that will hold

[1] J.Bhagwati, "Immiserizing Growth: A Geometrical Note," Review of Economic Studies, XXII (June, 1958), pp. 201-205.

only under strict specifications. Analogous to any theoretical model, the pure theory of international trade as a piece of abstract logic is not immediately applicable to an explanation of facts. Of course, much of the simplicity of the pure theory is lost when the element of time and the process of change are considered; what appeared as data in the static model takes on the characteristics of a set of mutually interacting variables. With the progress of time, the resource base of national economies changes, technology advances, productive factors move internationally, consumer tastes and preference patterns change their shapes, levels of economic activity fluctuate with disparate rates of growth. These changes will invariably affect the trade behavior of nations, the levels of domestic economic activity, the organization and methods of production, and levels of consumption and welfare. The incorporation of the time element and the variation in basic data describes only partially the necessary conditions of a truly dynamic situation. The essence of dynamics requires, in addition to progress through time, a process of continuous change, that is, a continuous interaction of the autonomous and induced changes in levels of economic activities and their impact on the flow and pattern of trade. It is in this area that the inadequacy of the traditional theory is more ostensible. In the perspective of an expanding economy, characterized by a process of continuous change, the contours of production possibility curves and consumer preference maps can no longer be

identified as parameters for theoretical use. The conditions of equilibrium derived from their properties are rendered inapplicable to international trade in the context of continuous economic expansion. The postulates of economic dynamics call for a new approach to the pure theory of international economics by synthesizing the scattered and fragmented literature now available into a rigorous unifying set of principles which could form the basis for further systematic exploration.

This does not mean that static theory is useless, however, Even Harrod, in his quest for full-fledged dynamic economics, conceded a place for static theory in international trade. While advocating a general overhauling of a great part of static theory, he maintained that "the general case for Free Trade in its widest aspect will continue to rest upon static analysis".[1] Comparative statics go a long way in enabling the theorist to deal with the changing situations and, therefore, to draw relevant conclusions for the commerical policy of underdeveloped economies. As noted above, significant pioneering work has already been done in this area. How much can be accomplished by means of comparative statics until a fully dynamic theory is developed, depends on the type of problem on hand. As Haberler states,

> "I contend that the problems of international division of labor and long-run development are such that the method of comparative statics can go a long way towards a satisfactory solution. That does not mean, however, that a dynamic

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1 R.F.Harrod, Towards Dynamic Economics; (London: Macmillan, 1949), p. 5.

> theory would not be useful. Unfortunately not much of a truly dynamic theory is available at present."[1]

He points out that the classical economists, especially Adam Smith and J.S.Mill, did anything but disregard the indirect, dynamic benefits which the less developed countries in particular can reap from international trade.[2] G.M.Meier, while noting the desirability of applying a truly dynamic analysis to the problems relating international trade and development, acknowledges that "dynamic model building in this area remains a matter of aspiration rather than accomplishment".[3] He uses himself the method of comparative statics in providing a synthesis of the pioneering work of Hicks, Johnson, Bhagwati, Rybczynski, and others, conceding nevertheless that this more modest approach "should still carry us quite a way in clarifying the international economics of development".[4] A.M.Huq states that comparative statics can be used as a first approximation of a truly dynamic analysis in international trade theory in examining the problems of development.[5]

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1 G.Haberler, International Trade and Economic Development; (Cairo: National Bank of Egypt,1959). Reprinted in T.Morgan, G.W.Betz, and N.K.Choudhry, eds., Readings in Economic Development; (Belmont: Wadsworth Publishing House,1963), p.245.

2 Ibid. Also, H.Myint,"The 'Classical Theory' of International Trade and the Underdeveloped Countries," Economic Journal,LXVIII (June, 1958), pp. 317-337.

3 G.M.Meier, The International Economics of Development; (New York: Harper & Row, 1968), pp.4-5.

4 Ibid.

5 A.M.Huq, "Towards a Dynamic Theory of International Trade," Economia Internazionale, XII (Nov.,1959),pp.663-673.

Haberler concludes his well known Survey of International Trade Theory with the following paragraph:

> As far as abstract theory is concerned there exists, however, not much more than occasional hints and pragmatic pronouncements concerning the necessity of dynamizing traditional theory plus a few fumbling steps in the direction of the actual construction of dynamic models. Economic history has more to offer than theoretical analysis for the solution of these problems. Those who believe that it is possible to set up model sequences of economic development should go ahead and do it, instead of merely criticizing others for not having done it. Traditional theory, contrary to the view of its critics, by no means precludes the construction of such a broader theoretical frame, although some incautious policy conclusions derived from static reasoning may have to be modified.[1]

The essence of the attempt to emphasize the dynamic aspect of international trade theory is to demonstrate that the gains from trade derive from taking advantage of comparative cost differences through specialization and international exchange. This specialization evolves, or must evolve, as a consequence of the "dynamics of technical progress, accumulation, and population increase, and their diffusion through the world economy".[2] Nevertheless, the solution to the problem of merging together the gains from trade and the gains from growth ultimately depends on the consistency and efficacy of domestic policy measures in producing a social, economic, and political framework that is conducive to maximizing favourable responses to the stimulus of trade.

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[1] Haberler, A Survey of International Trade Theory, (Special Papers in International Economics, No.1; Princeton: International Finance Section, Princeton University, 1961), p.58.

[2] H.G.Johnson, "Effects of Change in Comparative Costs..." op.cit., p. 112.

3. Conclusion

The list of objections levelled at the conclusions of international trade theory outlined above is by no means exhaustive. It includes, however, most of the important ones. It is not denied that the theory is correct given its own assumptions. If one questions the assumptions such as the existence of perfect competition, immobility of factors internationally, and so on, the practical relevance of the theory is somewhat impaired. If imperfect factor markets permit unemployment and disparities between social and private costs and if, furthermore, such distortions as the existence of external economies and infant industry arguments are taken into consideration, then the proposition that free trade is necessarily superior to no trade is invalidated to that extent. The main criticism is that comparative advantage is essentially a static concept which ignores a variety of dynamic elements. In a dynamic setting not only consumer preferences, productive abilities, and the state of the arts may change, but they change not at once but continuously with each variable interacting on each other. There is a conflict between the theory of comparative advantage which indicates the requirements for the most efficient allocation of resources in a given static situation and the requirements of development which call for an analysis of the mutual interactions between producing and consuming units in a dynamic system. If one incorporates truly dynamic changes in the theory, whereby a particular change depends not only on the passage of time,

but on the value of other variables as well, much of the simplicity of the classical system is destroyed and simple generalizations of the Heckscher-Ohlin type will not be adequate. The commodities to be produced and traded cannot be determined by a simple ranking procedure because of the interdependence among the sectors. Even such staunch free traders as Viner and Haberler admit the necessity of interpreting comparative advantage in a dynamic setting in which efficiency in production and consumer preferences may change over time, external economies may exist, and the market prices of commodities and factors may differ from their opportunity costs. As Nurkse points out, this limits quite significantly the scope and practical value of the original theory. He hastens to add, however, that "the more clearly we recognize its limitations the better for the realism and relevance of international economics".[1] The traditional theory does not exclude changes in data over time. It can include changes in technology, tastes and factor supplies within the framework of comparative statics. It can accommodate without difficulty the "optimum tariff" modification. By recourse to amendments and qualifications it could no doubt accommodate most or all of the objections to the free trade case. The question remains, however, of what is left of the original version once all these qualifications have been made. Nor has any alternative systematic theory been proposed.

[1] R.Nurkse, Patterns of Trade and Development, 1953. (Galaxy Book Edition; New York: Oxford University Press,1967),Appendix,p.216.

Perhaps, the most profitable result from the debate has been the lesson that a given principle may not fit all cases. The traditional theory of international trade, if taken to the letter, prescribes a single commercial policy for all countries regardless of their stage of development, that is free trade. After considerable debate, many economists have gradually come to recognize special circumstances in the case of developing economies. Even in theory, the case for free trade has been weakened. In its stead has arisen the conviction that each case must be considered with its own particular circumstances and that policies should be designed to fit the needs and situations of individual countries, entailing in some cases the formulation of deliberate policies on the basis of complex programming and planning models.

Such an approach has found support in the theoretical literature with the development of a promising concept which deals with situations involving less than optimal conditions: the theory of "second best". This concept, developed by Meade[1] and elaborated and generalized by Lipsey and Lancaster[2], is concerned with the application of the propositions of welfare economics to policy decisions; hence it is relevant to trade problems. The theory states that, if one or more of the conditions which underlie the attainment of the Pareto optimum is not satisfied, the other

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[1] J.E.Meade, The Theory of International Economic Policy, Vol.II, Trade and Welfare; (New York: Oxford University Press, 1955).

[2] R.G.Lipsey and K.Lancaster, "The General Theory of Second Best," Review of Economic Studies, XXIV (1956-57), pp.11-32.

conditions are no longer desirable, even if attainable.[1] Under these conditions, an optimum situation can only be attained by departing further from the other Paretian conditions. This would be a second-best solution given second-best conditions. Examples of second-best conditions could be the existence of market imperfections, of externalities, or of taxes and subsidies.[2] The presence of any of these distortions will prevent free trade from achieving the social optimum. Under these conditions, state intervention is required to maximize social welfare.

The theory of second best has found a number of applications in the welfare literature on international trade, such as the theory of customs unions,[3] and the welfare effects on the world of tariffs reductions by one country.[4] It has also led H.G.Johnson to the conviction that practically all arguments for protection are second-best arguments.[5] He considers that most arguments for

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1 Ibid., p.11.

2 Meade, op.cit., pp.102-118.

3 F.Geghrels, "Customs Unions from a Single Country Viewpoint," Review of Economic Studies,XXIV (1956-57), pp.61-64. R.G.Lipsey, "The Theory of Customs Unions: Trade Diversion and Welfare," Economica, XXIV (Feb.,1957),pp.40-46. J.E.Meade, The Theory of Customs Unions; (Amsterdam: North-Holland Publishing Co.,1955).

4 Meade, Trade and Welfare, op.cit., chap.31.

5 H.G.Johnson, "Optimal Trade Intervention in the Presence of Domestic Distortions," in R.E.Caves, H.G.Johnson, and P.B.Kenen, eds., Trade,Growth and Balance of Payments;(Chicago: Rand McNally,1964, ch.1). Also, J.Bhagwati and V.K.Ramaswami, "Domestic Distortions, Tariffs and the Theory of Optimum Subsidy," Journal of Political Economy, LXXI (Feb., 1963), pp.44-50.

protection are really arguments for some kind of government intervention in the domestic economy. The problem is the form which such intervention should take. If there are domestic distortions, the optimal policy is not protection, but domestic taxes and subsidies; protection would be only a second-best policy which would not necessarily eliminate the distortion. It does not follow that, because free trade cannot guarantee an optimum solution, protection can. All that can be validly concluded is that some kind of intervention is called for in such cases. The decision on the form that this intervention should take will depend on a consideration of the relative effectiveness of all the policy instruments available to the government. This means that the choice of optimal policy must be dictated by the type of situation faced.

CHAPTER III

DEVELOPMENT THROUGH TRADE

In the preceeding chapter an attempt was made to appraise the state of present-day economic thinking with respect to whether the traditional theory of international trade applies to developing countries. It was found that the principal problem, which took several forms, was the conflict between a theory conceived in static terms and the requirements of development where the radical transformation of the economy is a major object of policy. The method followed was to examine the assumptions underlying the theory and submit them, and the conclusions derived from them, to critical examination in the light of modern thinking on economic development. The view of the majority of international trade theorists, it was seen, is that the traditional theory, properly modified and applied, but not radically altered, can provide a framework for the analysis of the commercial policy of underdeveloped countries. There are others, however, who disagree strongly with this view and consider the traditional theory thoroughly inadequate, unrealistic, and biased against the underdeveloped countries. They consider that a free trade policy, given the set of conditions which distinguishes the underdeveloped from the advanced countries, will work continuously to the disadvantage of the underdeveloped countries.

This debate is not over. In any case, questions remain whether the underdeveloped countries did obtain their share of gains from

trade and why the growth of exports which they have experienced has failed to bring about economic development. These issues are largely historical. The interpretation of historical evidence has great influence on the type of policy which the advanced and underdeveloped countries will adopt towards each other. The influence of the thinking of the critics of the traditional view, coupled with the fear of "neo-colonialism", has resulted in a widespread drive for deliberate industrialization and in policies of import substitution in underdeveloped countries. It has also led to requests for trade preferences for these countries, that is, relatively free access to the markets of the advanced countries for the finished and semi-finished products of underdeveloped countries without reciprocity on their part. The interpretation of historical evidence will undoubtedly also influence the willingness or non-willingness of the industrial countries to grant these preferences. It is my purpose here to examine the most important contributions to the thinking of both sides.

1. Trade as an Engine of Growth

One of the first significant inquiries into the preformance and prospects of international trade with respect to its effects on stimulating development was made by D.H.Robertson.[1] He reached a pessimistic view of the role that world trade would play in the

[1] D.H.Robertson,"The Future of International Trade," Economic Journal, XLVIII (March,1938), pp.1-14. It was in this article that he coined the phrase "engine of growth" with reference to the role of international trade in development.

future economic intercourse of nations. He derived these pessimistic impressions from the following considerations. First, he believed that the dissemination of industrial skills throughout the countries which now were lacking them, that is mainly underdeveloped countries, would tend to reduce the scope of comparative advantage in the exports of industrial products in the industrial countries of Europe and North America . These countries would find their gains from trade diminished, would lose interest in promoting free trade, and therefore the volume of world trade would fall. Contrary forces, tending towards increasing the volume of world trade, are improvements in the breeds of animals and strains of seeds as well as the mechanization of agriculture. These have the effect of increasing productive efficiency in the new regions and, hence, tend to increase the volume and gains from trade. On the other hand, advances in technology, such as the development of synthetic products, have brought into play forces that reduce trade between the industrial countries and countries specializing in primary production. The depletion of exhaustible natural resources also tends to limit the advantages in primary production, tending thereby to reduce trade in these products. From technological considerations, then, Robertson saw some factors tending to increase the volume and scope of trade while others led toward reducing its importance. A further factor which tended to reduce the volume of trade was labelled by Robertson the "reduction of population pressures".[1] He thought that, as time goes by, the rate of growth of

[1] Ibid., p.5

population in all countries will decrease. The reduction in the expansion of population will dampen the demand for the type of goods which provided the impetus to development in the nineteenth century, such as capital goods, as well as foodstuffs. Trade between industrial nations and primary producers will grow at a slower rate than domestic production. Finally, as populations become stationary, imports will be "confined to what they can pay for the amount of their current output",[1] ceasing the practice of borrowing for development purposes.

It is easy to dismiss Robertson's fear about the reduction of population pressures. If the underdeveloped countries and the world in general have any population problems, it is in the direction of increasing pressures, with the result that on this ground trade has expanded and will do so in the future. Professor Viner, in his own appraisal of the role of international trade some fifteen years later, disagreed sharply with the rest of Robertson's conclusions.[2] Professor Viner seriously doubts that the diffusion of industrial capital, skills, and technology throughout the world is sufficient to narrow down significantly the differences in comparative advantage. Great gaps in costs will persist, according to him, as is evidenced by the drive for substantial protection from outside competition in underdeveloped countries. The transfer

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1 Ibid., pp. 6-7.

2 J.Viner, International Trade and Economic Development; (Glencoe: Illinois Free Press,1952). Also, his "International Trade Theory and Its Present-Day Relevance," in Economics and Public Policy, (Brookings Lectures, 1954).

of skills does take place, but the growth of technical and scientific knowledge is growing still faster in advanced countries. Viner rejects the idea that the development of mechanical power as a whole will tend to lessen cost differentials in different countries. The sources of mechanical power are more widely distributed than man-power and animal power. Furthermore, historically the application of mechanical power has vastly increased both the world's productive power and the possibility of profitable specialization by region and country. As for the development of cheap substitute goods of equal utility, there is no law which says that this factor always reduces imports; the innovation may involve substitution of cheaper imported goods for costly domestic items. It is only in manufacturing, Professor Viner believes, that one may suspect a tendency towards narrowing national differences and costs; and even here, statistical analysis reveals no evidence of a tendency for the volume of trade in manufactures to diminish in proportion to total trade or in exchange for primary products. The exchange of manufactures for primary products remains an important feature of trade. During the past century, with the notable exception of the United States, no net exporter of primary products has ceased to be so because of industrialization; in addition, there are still large areas which could greatly expand primary production if they could mobilize the capital and know-how necessary. Finally, Viner does not believe that trade will decrease as average per capita income will rise, even though the rise in income will mean that people will devote a greater

proportion of their income towards such non-tradeable items as housing, personal services, and other such "local amenities". The absolute amount spent on imports is likely to increase, even if the proportion of income spent on these imports is likely to decrease. Viner expresses the belief that any decrease in the volume of trade relative to gross national product which may have been experienced in the past, or may ensue in the future, is traceable mainly to artificial impediments which have been imposed upon the flow of trade as a deliberate policy, and not to natural economic forces.

J.R.Hicks has also expressed the belief that the case for comparative advantage is as valid when it is a question of growth as in the static situation, although he has also expressed some reservations about the role of trade with respect to the problem of development.[1] He observes that, although each country endeavours to manufacture its own consumption goods, even the greatest economic giant imports and exports capital goods to a quite remarkable extent "relying on trade to provide it with the variety of materials that it needs, and with the capital goods which it could not make for itself in the quantities it requires except at prohibitive costs".[2] According to him, this is the pattern towards which trade seems to be tending. This means that "the new capital goods, in-

[1] J.R.Hicks, Essays in World Economics; (Oxford: Clarendon Press, 1959),pp.180-188. Reprinted in G.M.Meier,ed., Leading Issues in Economic Development; (New York: Oxford University Press,1964), pp.348-352.

[2] Ibid., p.351.

stead of being wholly employed in direct production for the home market, will be partly such as will assist the production for export," thereby increasing trade and growth.[1] This, however, "is decidedly detrimental to the interests of underdeveloped countries, For it perpetuates the distinction between the developed and the underdeveloped". The former would export mainly capital goods and the latter raw materials, thus inhibiting the efforts of the underdeveloped countries to diversify their economy especially in the direction of highly productive, capital intensive industries.[2] The danger is that the underdeveloped countries might attempt to achieve this aim by widespread protection.

Probably the most outspoken critic of the role of international trade in the development process is Gunnar Myrdal.[3] Much of his work concentrates on the claim that traditional economic theory is irrelevant to the development of poor societies. He condemns the "strange isolation of the theory of international trade from the facts of economic life".[4] His criticism takes place on a broad methodological level; that is, he does not single out any particular theory for attack but rather disputes the validity of certain basic assumptions or "predilections " of economic theory

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1 Ibid.

2 Ibid., p. 352.

3 G.Myrdal, An International Economy; (New York: Harper & Row, 1956). Also, Economic Theory and Underdeveloped Regions; (London: G.Duckworth,1957); (References made to this book refer to the University Paperback Edition, Methuen & Co., 1963). Also, his Rich Lands and Poor; (New York: Harper & Row, 1957).

4 Myrdal, An International Economy, op.cit., p. 222.

in general. Examples of these are the "Harmony of Interests",[1] "Laissez-faire",[2] the "Free Trade Doctrine",[3] and the "Equilibrium Concept".[4] Such criticism is particularly related to his contention that the gap between rich and poor countries is forever becoming wider. His own message, he states, finds a "perfect expression" in the Gospel: "For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath". Traditional economic theory, he says, is incapable of explaining this growing inequality between the developed and the underdeveloped countries. Stable equilibrium is a false analogy when applied to social reality. "The system is by itself not moving towards any sort of balance between forces, but is constantly on the move away from such a situation."[5] An analysis set in the framework of static equilibrium and laissez-faire leads to an inherent "social fatalism" as far as policy is concerned.[6] Traditional theory has also "disregarded...non-economic factors and kept them outside the analysis...This represents one of the principal short-comings of economic theory".[7] Myrdal,

1 Myrdal, Economic Theory and Underdeveloped Regions, op.cit., p.136.

2 Ibid., p. 138.

3 Ibid., p. 140.

4 Ibid., p. 142.

5 Ibid., p. 13.

6 Ibid., p. 14.

7 Ibid., p. 30.

therefore, suggests that the traditional theory be abandoned in favor of what he calls a theory of "circular or cumulative causation". This theory, he claims, is valid "over the entire field of social relations",[1] and he believes to have experienced a "vision of the general theory of underdevelopment and development which we are all yearning for".[2] Myrdal argues that market forces will tend cumulatively to accentuate international inequalities and that "a quite normal result of unhampered trade between two countries, of which one is industrial and the other underdeveloped, is the initiation of a cumulative process towards impoverishment and stagnation in the latter".[3]

Briefly put, the theory of circular causation falls into two separate parts, the one dominated mainly by "backwash effects" applying mainly to underdeveloped countries; the other dominated mostly by "spread effects" valid mainly for advanced industrial countries. Myrdal speaks of backwash effects when an initial change for the worse sets in motion a cumulative downward process. Such an initial change may be found in migration, capital movements, or trade. These initial changes are assumed to have positive results for advanced countries, but negative results for underdeveloped ones. Migration is selective to the disadvantage of underdeveloped countries as it "tends to favour the rapidly growing

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1 Ibid., p. 23.

2 Ibid., p. 12.

3 Myrdal, An International Economy, op.cit., p. 95.

communities and disfavor the others.... at least with respect to the migrant's age".[1] Capital movements also tend to increase inequalities by being directed towards the center of expansion, which in turn will increase income and demand in areas of concentration. Finally, trade operates with the same "fundamental bias" in favor of the rich and progressive regions or countries. The influx of goods from a growing region may, for example, destroy handicrafts in the poor regions, thus inducing emigration from the latter. What is a disadvantage to an underdeveloped region becomes an advantage to a developed country by means of spread effects. Myrdal calls these spread effects centrifugal powers which carry the expansionary momentum from the centers of economic development to adjacent regions. The momentum of spread effects increases with the standard of the country's performance.

> A high average level of development is accompanied by improved transportation and communications, higher levels of education, and a more dynamic communion of ideas and values - all of which tends to strengthen the forces for the centrifugal spread of economic expansion or to remove the obstacles for its operation.[1]

The traditional theory of international trade claims that any two countries trading with each other would gain by their mutual trade even if one were economically developed and the other underdeveloped. The classical theory thus concludes that the growth rates of real per capita income will increase in both countries after trade relations have been established. Myrdal's theory of

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[1] Myrdal, Economic Theory....., op.cit., p. 27.

[2] Ibid., p. 34.

cumulative effects, however, arrives at a completely different conclusion. After the establishment of mutual trade relations, the process of cumulative causation becomes operational in both countries. As a result of the backwash effects, real per capita income will decline in the underdeveloped country until it reaches the floor of subsistence income. On the other hand, spread effects in the developed country cause per capita income to rise until a ceiling results from the fact that the prosperous country will eventually experience difficulties in replacing its obsolete capital equipment and a decline in the desire for risk-taking and enterprise.[1]

This is Myrdal's challenge. He doubts whether the usual conclusions of economic theory, particularly international trade theory, portray the real world correctly. International trade theory of the Ricardian type is equilibrating. Myrdal claims that just the opposite is true. The orthodox theory concludes that the international market mechanism makes it possible for each member of the world economy to share in the gains from trade and tends to contribute to each country's economic development and welfare. Myrdal states that "The main idea I want to convey is that the play of the forces in the market normally tends to increase, rather than decrease, the inequalities between regions".[2]

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1 Ibid., pp. 35-37.

2 Ibid., p. 26.

The opinions expressed by Myrdal's reviewers range from outright rejection of his hypotheses to enthusiastic acceptance. Bauer, for example, feels disappointed because Myrdal's books "provide so little in the way of new knowledge or new insights"[1] and "are concerned with the promotion of policy rather than the promotion of knowledge"[2]. H.Makover observes that "the high importance of the cause he is sponsoring makes one wish all the more that the stimulating ideas could have found their place in a less diffuse and a more systematic treatment".[3] Formal reproaches of "exaggeration" and "careless use of words" are made by Knox[4]. Reviewers such as Easterlin,[5] Mikesell,[6] and G.M.Meier, however, regard Myrdal's work as the "most provocative, and in some respects the most provoking book(s) yet written on the development problem of poor countries".[7] Myrdal's claim that the general

[1] P.T.Bauer, "International Economic Development," Economic Journal, LXIX (March, 1959), p. 105.

[2] Ibid., p. 123.

[3] H.Makover, "An International Economy," Economica, XXIV (Aug.,1957) p.262. One would agree heartily with this statement.

[4] A.D.Knox, "Economic Theory and Underdeveloped Regions," Economica, XVII (Aug., 1960), p. 280

[5] R.A.Easterlin, "Rich Lands and Poor Lands: The Road to World Prosperity," American Economic Review, XLVIII (Sept.,1958),pp.678-681

[6] R.F.Mikesell, "International Economics," American Economic Review, XLVI (Dec.,1956), pp.1011-1016.

[7] G.M.Meier, "Rich Lands and Poor Lands," Journal of Political Economy, LXVII (Dec., 1959), p. 636.

laws of economics do not apply to the problems of the development of poor countries is contrasted with the view of Bauer and Yamey who write that "Although many of the differences between the different parts of the underdeveloped world are very deep seated, some of the basic tools and concepts of economics apply widely to underdeveloped countries".[1] This according to these writers, is true at least with respect to the basic elements of demand and supply analysis, the concept of substitution at the margin, the theory of inflation, the concept of complementarity and the competitive relationship between factors of production. It is Myrdal's contention that if market forces were allowed to work freely in underdeveloped countries, such countries would fall cumulatively behind their developed rivals. Market forces, in Myrdal's theory, work as amplifiers of international inequalities. One may also claim the opposite, however, namely that it is because market forces are absent or weak that it is so difficult to narrow the gap with the advanced countries and that the solution lies in making these forces more effective.

Using a more dispassionate approach, Hla Myint has also pointed out some detrimental effects of foreign penetration into the economies of underdeveloped countries.[2] He argues that the penetration

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[1] P.T.Bauer and B.S.Yamey, The Economics of Underdeveloped Countries (Chicago: University of Chicago Press, 1957), p.8.

[2] H.Myint, "An Interpretation of Economic Backwardness," Oxford Economic Papers, VI (June,1954),pp.132-163. Also,his "The 'Classical Theory' of International Trade and the Underdeveloped Countries," Economic Journal, LXVIII (June,1958),pp.317-337. Also,his The Economics of Developing Countries; (London: Hutchison University Library, 1964).

by foreign capital into the underdeveloped economies, being an extremely risky and costly undertaking, has been possible largely through the inducement of monopolistic and monopsonistic opportunities granted to it. The exploitation of these opportunities has resulted in the domination of foreign enterprise in terms of market strategy. This domination expresses itself in three forms: (i) as a dominant employer of unskilled labor puts it in a position to dictate the level of wages; (ii) as a dominant buyer of peasant export produce enables it to pay low prices; (iii) finally, as a dominant wholesale dealer in imported commodities enables it to charge relatively high prices. Because of these factors, the gains from trade and from development accrue to foreign enterprises in a greater proportion than to natives, and this situation tends to accentuate international inequalities.[1]

Myint observes, furthermore, that the international specialization which occurred in the primary exporting countries was not really conducive to cumulative improvements in skills and productivity, 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] According to Myint, these once-for-all improvements were 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

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[1] Myint, "An Interpretation of Economic Backwardness," op.cit., pp.154-162.

[2] Myint, "The 'Classical Theory'....," op.cit., p. 320.

of 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 from immigration. Moreover, the commodity booms usually came suddenly, were short-lived, and allowed no time to introduce and absorb innovations. In the case of traditional crops, 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 financial resources 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 <u>continuous</u> innovation after the initial increase in productivity. The source of growth power was exhausted rather quickly.

Myint's theory, however, explains only one aspect of the whole story, namely 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 whole domestic sector. Such spread could have resulted from the increase in national income which did take place following the increase in productivity of the export sector. The inefficacy of overall increases in income to stimulate home production is due to the weak forward and backward linkages between industries and in the pronounced imperfections of the market in underdeveloped

countries.

Ragnar Nurkse, on the other hand, does not doubt at all that international trade played a crucial role in the development of new areas and in transmission of growth from the center, that is Western Europe, especially Britain, towards the new areas, especially the so-called areas of recent settlement like North America and Australia.[1] Adducing relevant data to support his contentions, Nurkse argues that the world's situation has changed in such a manner that trade no longer serves as an engine of growth ready to be harnessed by the present-day underdeveloped countries.

In the 19th century trade was accompanied by a parallel movement of capital and labor which worked towards reinforcing the effects of trade. The new areas received considerable numbers of skilled workers as well as large amounts of capital. In the 20th century, instead, the flow of trade and the movement of capital and labor are not mutually reinforcing. There is a frustrating lack of synchronization between export development, capital inflow, and labor mobility. Capital now moves as a substitute for labor mobility rather than as a complement to it, and tends to go to economies already developed. The capital that does find its way towards underdeveloped countries, moreover, has the characteristic of creating "not only a dual economy, but also a dual society, in

[1] R.Nurkse, Patterns of Trade and Development,1953.(References made here to this book allude to the Galaxy Book Edition; New York: Oxford University Press,1967). See also his "The Problems of Investment Today in the Light of the 19th Century Experience," Economic Journal, LXIV (Dec.,1954), pp.744-758.

which conditions for the diffusion of western technology may actually be the reverse of the favourable".[1] This is because foreign investment in general tends to be concentrated in the extraction of raw materials for export. This pattern of foreign investment leads to a high degree of dependence on foreign demand for one or two main exports. This induces a high degree of instability with respect to export earnings with detrimental effects on the overall development.

In the 19th century the tremendous expansion of demand for raw materials and foodstuffs in Western Europe, especially in Britain, produced in the newly settled countries an added inducement to invest particularly in those lines of production which were growing at a faster pace and which were designed to meet this increased foreign demand. Growth at the periphery was thus induced by growth in the industrial centre.[2] Economic growth in the periphery was due not only to international specialization as such, but more particularly to the fact that the rapid growth at the center was such that it was easily transmitted to the periphery. The newly settled areas were all, or nearly all, in temperate latitudes and could supply the foodstuffs which could have been produced at the center only at a much higher cost. The new countries were in a real sense the "frontiers" of the older economies.

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1 Nurkse, "Problems of Investment...." op.cit., p. 752.

2 Nurkse, Patterns of Trade and Development, pp. 173-178.

In the 20th century, however, the primary producing underdeveloped countries must sell their products in sluggish international markets and face an inelastic demand, with the result that the share of trade from underdeveloped countries in total world trade has fallen from 33.8% in 1928 to 31.3% in 1957.[1] Excepting oil-exporting economies the corresponding figures are 32.3% and 24.4%. The great bulk of world trade takes place among the advanced countries themselves. Nurkse attributes this decline to six factors: (1) a shift in the industrial structure of advanced economies in favor of capital intensive industries with a low content of imported raw materials; (2) the rising share of services in the total output of advanced economies; (3) the low income elasticity of demand for many agricultural products; (4) agricultural protectionism in developed countries; (5) the tendency to economize in the use of raw materials; (6) the introduction of synthetic materials in the advanced countries.[2]

From this analysis Nurkse concludes that the doctrine of comparative costsis in fact applicable to underdeveloped countries, but it is because of the world conditions that the growth of world trade has been slower. Since this trade has not been reinforced by adequate movements in capital and labor, the result has been to render the role of trade ineffective in stimulating economic development. Since specialization along the lines of comparative advantage

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1 Ibid., p. 180.

2 Ibid., pp. 182-183.

does not look very promising, he sees as an alternative the development of the domestic market by simultaneous investment in many industries, as well as in agriculture and social overhead capital, that is, balanced growth.[1]

It is questionable, however, to characterize without qualification the underdeveloped countries as producers and sources of raw materials and foodstuffs and the industrial countries as the importers of these items. Estimates have shown that underdeveloped countries import only about one third of their consumption of manufactures and that this proportion is falling.[2] Moreover, they consume at home about nine tenths of their output of foodstuffs. Also, the industrial countries as a group produce more raw materials and foodstuffs than the underdeveloped countries. A.K.Cairncross disagrees with Nurske's contention that in the present century international trade has failed to generate economic development in the pattern of the 19th century because of a sluggishness in the export performance of the underdeveloped countries. Using the findings of P.L.Yates, he shows that the underdeveloped countries of Africa, Asia, and Latin America enjoyed a rising share of world's exports between 1913 and 1953.[3] Also, although the emergence of oil exports from some of these countries boosted the overall rise

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[1] This idea of balanced growth was discussed in the preceeding chapter.

[2] Figures quoted in A.K.Cairncross, "International Trade and Economic Development," Economica, XXVIII (Aug., 1961), pp.235-251. Reprinted in F.B.Jensen and I.Walter, eds., Readings in International Economic Relations; (New York: The Ronald Press, 1966), pp.431-432.

[3] Ibid., pp.418-434. Also his "International Trade and Economic Development," Kyklos, (1960), pp. 545-558.

in their share of exports, yet the exclusion of all exports of fuel "still leaves a total which increases faster for the three poor continents than for the richer continents between 1913 and 1953".[1] According to him, "there is nothing necessarily regrettable about dependence on foreign trade," and "nothing particularly surprising when external demand bears on a narrow sector of the economy,"[2] adding, however, that "the risks of specializing on a narrow front are very real".[3] He admits that the dominant pattern of trade in the twentieth century has not followed that of the nineteenth and that, given the facts, "It is possible to put a pessimistic construction on these facts.... This evidence, however, is not conclusive and a quite different interpretation of the facts is possible".[4] He finds, further, that "exports from the underdeveloped countries are governed less closely by the level of world demand than is usually supposed",[5] and that international trade could remove one of the principal obstacles to a more rapid industrialization of underdeveloped countries, namely that of providing markets which will expand the now limited scale of operation of manufacturing plants in underdeveloped countries.

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1 A.K. Cairncross, Kyklos article, p.548.

2 Cairncross, Economica article, p. 423.

3 Ibid., p. 425.

4 Ibid., p. 430.

5 Ibid., p. 433.

The most persistent and outspoken defender of the view that free trade is the policy most conducive to growth and development is Professor Haberler. In his Cairo Lectures he states that "my conclusion is that substantially free trade with marginal, insubstantial corrections and deviations, is the best policy from the point of view of economic development",[1] and that "international trade has made a tremendous contribution to the development of less developed countries in the 19th and 20th centuries and can be expected to make an equally big contribution in the future, if it is allowed to proceed freely".[2] He maintains that if international trade enables a country to produce cheaper goods and exchange them for the products that other countries can produce at a lower cost, such an exchange raises the level of income and promotes economic development.[3] He argues that economic growth can be transmitted from one country to another both directly and indirectly. Trade, he says, does more than provide a market and encourage the growth and reallocation of resources. It also transmits ideas and experience, helps change attitudes and institutions, thus paving the road to further development. He points out four such indirect benefits which are intimately related to the volume of trade. They include the provision of capital through international investment;

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1 G.Haberler, International Trade and Economic Development; (Cairo: National Bank of Egypt, 1959), p.5.

2 Ibid..

3 Ibid., pp. 10-11.

the access to material means indispensable for economic development, such as capital goods, machinery, and raw and semifinished materials; the dissemination of knowledge, skills, managerial ability, and the like; and finally, the beneficial effects of a healthy degree of free competition.[1] The indirect benefits are likely to be of an even greater importance to the less developed countries than to the advanced industrial ones. In the light of these indirect benefits, the growth of exports is not a reliable measure of economic development. Even if the growth of exports remains modest, it may have a magnified effect on national income, especially if the indirect benefits of trade manifest themselves in the form of a general rise in productivity.

Haberler opposes the contentions of the critics with strong and unambiguous statements. He states that the "relationship between developed and underdeveloped countries is one from which the latter gain much and lose little, if anything, and talk of backsetting effects is vague and usually without real substance".[2] He questions the existence of a systematic trend for the terms of trade to move against (or in favor) of primary producing countries. He dismisses as "entirely unrealistic" the contention that "there are large masses of unused resources free for the asking and ready to put to work".[3] Finally, he denies that government action can be

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1 Ibid.

2 Ibid., p. 33.

3 Ibid., p. 22.

expected to improve upon the international market mechanism with respect to allocative efficiency. He is prepared to accept, however, a uniform tariff on manufactured goods on infant industry grounds.

Haberler's assertions are corroborated to a great extent by G.M.Meier. He states that much of the criticism of the traditional view is misplaced

> Once it is recognized that the relevant comparison is not between the pattern of resource utilization that actually occurred with international factor movements and some other ideal pattern, but between the actual pattern and the pattern that would have occurred in the absence of capital and labor inflow.[1]

One may ask, however, why the development drive of the underdeveloped countries has not met with more success than can be observed if they had access to so many benefits. Why has the significant expansion in export trade, a substantial proportion of the national product of most underdeveloped countries, failed to transform the domestic economy to a greater extent? Meier, while defending the basic tenets and conclusions of the traditional position, concedes that the growth of exports has not been a satisfactory propeller of development. He ascribes this failure to two factors, namely the "differential effects of different exports, and... the domestic market conditions of the poor country".[2]

With respect to the first factor, the effectiveness of exports as an agent of growth depends on the production functions, since

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[1] G.M.Meier, The International Economics of Development; (New York: Harper & Row, 1968), p. 233.

[2] Ibid., p. 240.

the relative shares of factor earnings in total output will vary according to the prevailing form of organization of production. In general, exports will provide a stronger stimulus to economic development

> the higher is the growth rate of the export sector; the greater is the direct effect in the export sector on employment and personal income; the less the distribution of export income favors those with a higher marginal propensity to import; the more productive is the investment resulting from any saving of export income; the more exports expand through a change in production functions, rather than by a simple widening process; the more extensive are the externalities and linkages connected with export sector and the more stable are the export receipts retained at home.[1]

With respect to the second factor, Meier sees the lack of intersectoral relationships, pervasive market imperfections, ignorance of technological possibilities, and deficiency of entrepreneurship as the principal impediments which impair the penetrating power of foreign trade. One may equate this situation to the Rostovian stage where the preconditions for sustained development are still absent. The object of policy in underdeveloped countries, then, should be the elimination of these obstacles within the domestic economy while allowing foreign trade to fulfill its role of stimulant of the process of change.

Thus the debate continues. The advocates of free trade policy as a tool of development believe that even though the world conditions have altered in such a way as to make trade a less powerful engine of growth and allow for exceptions to the general rule, yet they see the role of trade as being practically

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1 Ibid., p. 245.

the same as that expounded by the traditional view. In underdeveloped countries, they argue, foreign trade opens up many possibilities and helps to transform subsistence into monetary economies. They do not believe, however, that free trade will cure all the ills and solve all the problems of development. Development may be frustrated by the traditional social and economic organization of the underdeveloped societies. On the other hand the critics have asked disturbing questions to which traditional theory and historical evidence have provided somewhat less than completely satisfactory answers. It is important in view of the magnitude and importance of the problems involved, that such satisfactory answers be provided.

2. The Terms of Trade

Traditionally, the theory of international trade has been mainly concerned with the maximization of world income, emphasizing the optimum allocation of world resources. Recently, however, international trade has come under close scrutiny with regard to its role in distributing world income. We have seen in the preceeding section that some economists, notably Myrdal, believe that the process of international trade is biased against the underdeveloped countries and that a free trade policy would have detrimental results on the economic development of poor countries. They recommend instead a policy of all-out industrialization for the underdeveloped countries, preferably behind a tariff wall. There is another group of economists who reach the same conclusions,

but who base their conviction on a rather different argument: an alleged secular deterioration of the international terms of trade against the underdeveloped countries or, as they are commonly identified, the primary producing countries. We will proceed now to examine this argument.

Let us begin by stating that this argument has aroused a real and acute concern in underdeveloped countries and by emphasizing that this concern is quite understandable, even if it has not conclusively or even convincingly been shown to be justified. In most underdeveloped countries the volume of international trade is very large in relation to national product. In this context, it must be noted that the allegation of secular deterioration of terms of trade becomes important in view of the fact that most underdeveloped countries have become biased towards their export sector. There is nothing wrong with this in the light of the traditional theory which states that a sizable part of the resources of the underdeveloped economy should be allocated in export industries where productive efficiency is comparatively greater. If the allegation of secular decline of terms of trade were true, however, the export bias of underdeveloped countries becomes a matter of great concern and the prospects of "developing through trade" would look bleak indeed. Specialization in exports under these conditions would lead to growing inequality between the advanced and the underdeveloped countries. This would suggest that industrialization behind a tariff wall would be the best

policy in the long run. On this basis, moreover, the less developed countries find support for demands for special arrangements and preferential tariff treatment without reciprocity for their exports. The settlement of this issue, therefore, becomes extremely important in view of the policy implications.

It is also useful to distinguish the different contexts in which the terms of trade concept has been used. Traditionally, the concept has been used in the static and comparative static theory of international trade to establish the relative prices of internationally traded goods and as part of the adjustment to shifts in any of the parameters. In this role it was used, for example, to analyze the effects of tariff adjustments, changes in exchange rates, income transfers, and so forth. In a quite different context, however, the terms of trade concept has been used to examine the effect of secular changes in the price of different sets of commodities on the long-run economic development of different sets of countries. In this context it has served to explain the nature and conditions of growth transmission through the international market mechanism. It is with this latter aspect that we are mainly concerned here.

The argument about the secular deterioration of the terms of trade is associated mainly with the name of Raul Prebisch.[1] In

[1] R.Prebisch, The Economic Development of Latin America and its Principal Problems; (United Nations, Economic Commission for Latin America, 1950).Also his "Commercial Policy in the Underdeveloped Countries," American Economic Review, XLIX(May,1959),pp.251-273.Reprinted in F.B. Jensen and I.Walter,eds.,Readings in International Economic Relations (New York: The Ronald Press,1966),pp.435-453.Also,his Towards a New Trade Policy for Development; (United Nations,Report to the Secretary General of UNCTAD, 1964).

his various writings, Prebisch has sought to support his views with statistical evidence as well as with theoretical arguments. The statistical basis for the argument originated with a United Nations study about the commodity terms of trade for the United Kingdom from the latter part of the nineteenth century to the late 1930's.[1] During this period, it was claimed, the terms of trade had improved to such an extent for Britain that "On an average, a given quantity of primary exports would pay, at the end of this period, for only 60% of the quantity of manufactured goods which it could buy at the beginning of the period".[2] A second study carried out by the ECLA and bearing Prebisch's name confirmed the trend.[3] Prebisch's figures are reproduced in Table 1.

With respect to the theoretical explanation, Prebisch has based his thesis on a number of hypotheses which unfortunately are not rigorously formulated and do not form a coherent body of doctrine. We will attempt here to present his views as collected from his various writings.

According to traditional theory, he says, the benefits of technical progress are spread over the entire world community, either by lowering prices or by raising incomes. Since it is commonly acknowledged that technical progress has been greater in

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[1] United Nations, Department of Economic Affairs, Relative Prices of Exports and Imports of Underdeveloped Countries, (1949).

[2] Ibid., p. 72.

[3] R. Prebisch, The Economic Development of Latin America, op.cit.

TABLE 1

Peripheral Terms of Trade (1876/80=100)

Period	Amount of finished product obtainable for a given quantity of primary commodities
1876-1880	100.0
1881-1885	102.4
1886-1890	96.3
1891-1895	90.1
1896-1900	87.1
1901-1905	84.1
1906-1910	85.8
1911-1913	85.8
.....	.....
1921-1925	67.3
1926-1930	73.3
1931-1935	62.0
1936-1938	64.1
.....	.....
1946-1947	68.7

Source: R.Prebisch, The Economic Development of Latin America, op.cit., p.9. The figures are index numbers of the terms of trade of Great Britain viewed from the standpoint of the primary producers, i.e., the inverse of the British terms of trade.

manufacturing than in primary production, if prices fell in proportion to the increase in productivity throughout the whole world it would follow that prices in industrial countries would fall more than in primary producing countries; therefore, the terms of trade would shift in favor of the primary producing countries. Thus, by this mechanism, the peripheral countries who are the primary producers, would share the benefits of technical progress in the industrial center through international exchange. This, we must note, is precisely the classical view. Prebisch's thesis,

however, is that exactly the opposite has occurred.

Prebisch views shifts in the terms of trade as affecting an economy's capacity to import, that is, he is concerned with the given volume of imports obtainable in exchange for a given volume of goods a less developed economy can manage to sell abroad.[1] This approach puts the problem in a rather appropriate light since it puts the significance of the exports of a developing country in its proper place, namely in increasing its capacity to obtain the goods which are essential to its development. Far from being a leakage in the flow of national income, for a developing economy imports are an indispensable tool of economic development. Not only import competing goods could be produced in many cases only at prohibitive costs, but in many cases they could not be produced at all, especially sophisticated capital equipment and machinery.

Prebisch repeats the charge made by others that the traditional theory of international trade is inadequate for explaining the problems of development at the periphery since it is essentially static. Moreover, he charges that the assumption of perfect competition is quite unfounded, especially at the center.

One of the reasons for the adverse behavior of the terms of trade, according to Prebisch, is the difference in the effects of

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[1] This contrasts, for example, with the view that movements in the terms of trade indicate the total gains from trade, presuming equality between exports and imports. This concept is used by A.H. Imlah, Economic Elements in the Pax Britannica; (Cambridge: Harvard University Press, 1958).

the business cycle in advanced and underdeveloped countries. Given a more or less equal number of upswings and downturns, if the economic structure were similar in both the center and the periphery, the net effect of the cycle would be neutral, that is, it would not cause either deterioration or improvement in the terms of trade. Why does it cause a movement of the terms of trade against underdeveloped countries, then? The answer is to be found in the far greater rigidity of the economic structure of the advanced countries which prevents prices and wages to be fully reversible in the downswing. Due to a number of factors, particularly the active operation of trade unions and monopolistic power, the downward price adjustments expected in the downswing fail to occur to any significant extent. By contrast, the lack of organization of workers in the peripheral countries prevents them on one hand from obtaining significant increases in wages during an upswing and on the other forces them to accept lower wages during a downswing. The result of this divergence in structural flexibility in the two sets of economies forces the greater part of the burden of price adjustment on the peripheral countries. The latter experience rising prices during an upswing, but even greater falls in prices during the downswing. Thus, given a more or less equal number of cycles, prices will rise to a much greater extent in advanced countries and the terms of trade will move against the underdeveloped countries.

Moreover, Prebisch reasons that economic activity in the peri-

pheral countries is entirely dominated by the intensity of industrial activity at the center. The capacity of prices in the underdeveloped countries to influence the demand of industrial countries is strictly limited; it is the latter's level of income and their rates of industrial growth that determines their demand for imports. When this demand rises, prices of primary products rise also. Far from being negatively correlated, prices and demand are thus positively correlated due to the overwhelming influence of income.

Primary production, furthermore, lacks the dynamic power to make industry increase its demand for primary products, while industry possesses the power to induce primary producing economies to increase their demand for industrial goods. This follows from the fact that primary production, as its very name implies, covers the initial phases of the productive process, while industry accounts for subsequent stages. An expansion in rubber exports, for example, will not cause an increase in the manufacture of motor cars, but an increase in the production and exports of the latter will cause an increase in the production and exports of rubber.

Demographic pressure also exerts an influence to keep down wages. A state of direct unemployment or underemployment exerts a downward pressure on wages. It is not possible to sustain wages at a higher level in the peripheral countries, first because there is the fear of a fall in the volume of exports due to a country

being "priced out" by other peripheral countries and, second, because organized trade unions are either absent or too poorly organized to be effective.

Prebisch's thesis also rests partly on the operation of Engel's Law which states that, as income rises, the proportion of income spent on food falls with respect to manufactures, thereby causing a decline in the price of foodstuffs relative to manufactures. Prebisch claims that the center's income elasticity of demand for imports of primary products is less than unity, while the periphery's income elasticity of demand for industrial goods is greater than unity. Another factor is the increase in the use of raw materials and the increased competition of synthetic substitutes. All this makes possible the production of increasing quantities of manufactures with a given quantity of raw materials. Hence, if the output of manufactures and raw materials grow at the same rate, the terms of trade will turn against raw materials.

Prebisch cites evidence that the import coefficient in the center has fallen, that of the United States by one half and that of Britain by one third during the period from 1925 to 1949.[1] The decline in the import coefficient means that the export quantities of the peripheral countries have deteriorated relatively. This has been due partly to protective policies in the advanced countries and partly to the factors cited above. This decline has

[1] United Nations, Economic Commission for Latin America, Economic Survey of Latin America, 1949, (1951), pp.27-30. The import coefficient is the ratio of national imports over national income.

of course been relative, the absolute export value having in fact risen. In any case, the rate of growth of exports has lagged behind the rate of growth of population with the result that the export sector has been unable to provide a dynamic stimulus to the rest of the economy of peripheral countries.

Prebisch also considers the effects of technical progress. An increase in productivity can express itself either as a reduction in prices following the reduction in costs or as increases in income by raising wages and profits. If the assumption of perfect competition were valid both at the center and at the periphery, one could expect productivity increases to result in a decline in prices, with the factors of production receiving more or less the same incomes, or higher incomes but still less than the increase in productivity. If these competitive forces worked only in the product market, productivity increases would bring a rise in wages and returns to other factors, with prices left unchanged. The real income increase brought about by increased productivity could thus result either in a constant level of money income with a fall in prices or in a rise of money income with a proportionately smaller rise in prices. Now, according to Prebisch, the presence of monopolistic forces and strong labor unions at the center has resulted in the industrial countries distributing increases in productivity in the form of higher incomes, even higher than higher prices. Tariffs, subsidies, and the like are used by these countries to insure that even particular industries that might be forced to lower their prices by conditions in that industry, share

evenly the rising income. The result is that productivity gains are not passed on to the primary producing countries in the form of lower export prices. On the other hand, the absence of monopolistic elements and strong labor unions in the countries at the periphery has resulted in productivity increases taking the form of lower prices, especially lower export prices. Hence, the resulting deterioration in the terms of trade.

H.W.Singer agrees with Prebisch on this score and makes two further points which strengthen this line of analysis.[1] First, underdeveloped countries tend to produce commodities in which entry is easy and exit difficult. This limits their power to raise prices in periods of strong demand and to maintain them in depression. On the other hand, advanced countries have a high elasticity of substitution between their foreign trade products, that is exports and imports, and import competing goods. Second, Singer argues that the ownership of large areas of the export sector of the underdeveloped countries by foreign firms prevents them from boosting up their export prices when their exports face an inelastic foreign demand, whereas the underdeveloped countries cannot evade high import prices when their own demand for foreign goods is inelastic.

The result of the process is that the terms of trade turn against primary producing countries, in which case not only they do not receive the gains from advances in productivity in indust-

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[1] H.W.Singer, "The Distribution of Gains between Investing and Borrowing Countries," American Economic Review, XL (May, 1950), pp.473-485.

rial countries, but actually surrender part of their own productivity gains. The fact that the terms of trade have favored industrial goods against primary products in the last seventy years in spite of vastly greater advances in productivity in manufacturing than in agriculture, according to Singer, shows that

> The industrialized countries have had the best of both worlds, both as consumers of primary commodities and as producers of manufactured articles, whereas the underdeveloped countries have had the worst of both worlds, as consumers of manufactures and as producers of raw materials.[1]

Various lines of action are advocated from this analysis; these could be carried out separately or, even better, concurrently. First, the advanced countries must lend more capital abroad. Or, alternately, they must receive as immigrants the surplus population of the primary producing countries. In this way, the advanced countries can on the one hand relieve the demographic pressure in the peripheral countries and on the other render possible the application of methods which maximize productivity in the primary producing countries without the fear of creating unbearable unemployment. More important still, the underdeveloped countries should adopt a policy of all-out industrialization. In pursuing this aim, Prebisch argues, the underdeveloped countries will undoubtedly run into problems, especially balance-of-payments problems. Industrialization, however, will increase the productivity of the economy as a whole and will render possible

[1] Ibid., p. 479.

the diversion of the labor force from occupations in low-productivity production into industries of higher productivity. This drive for industrialization takes the form of import substitution.

Prebisch does not advocate the neglect of primary production. He sees industrialization and technical advances in primary production as complementary. But he clearly feels that industry plays a more dynamic role and that it can provide a desirable stimulus to the backward sector. Given a growing industrial base, labor displaced from primary production can move into domestic industry without driving wages down. He claims that higher industrial costs in the peripheral countries does not mean that industry is not economic. He states that

> The problem has to be considered from another angle. It is not really a question of comparing industrial costs with import prices, but of comparing the increment in income obtained in the expansion of industry with that which would have been obtained in export activities had the same productive resources been employed there.[1]

The policy implication here is that the governments of the peripheral countries should employ substantial and long run protection to establish new industries and to replace imports even if import substitutes might not be produced at a comparative advantage in the foreseable future, so long as the real loss involved in such production is less than that involved in future output of primary exports, the market value of which declines secularly. The appropriate degree of tariff protection, according to him, is that

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[1] Prebisch, "Commercial Policies and Underdeveloped Countries," op.cit., p. 439.

which increases the value product of the marginal worker in each firm in industries producing for domestic markets to the point at which it is equal to the value product of the marginal worker in the export industry as a whole.[1]

According to Prebisch, protection has different meanings at the periphery and at the center. The periphery can use it to correct the disparity in income elasticities of demand and other factors mentioned above, and this will not hamper the rate of growth of trade. If the center were to resort to protective measures, on the other hand, this would tend to depress peripheral development and to decrease total world trade. The traditional form of reciprocity under which the peripheral countries are asked to grant duty concessions similar to those introduced by the center does not allow for an implicit element of reciprocity already extended. The increased exports from the periphery will soon be followed by a corresponding increase in its imports of industrial goods due to the periphery's high income elasticity of demand. Hence, there is no need for a reduction or elimination of the periphery's duties. The notion here is that protectionism at the periphery will merely alter the composition of imports, whereas at the center it would decrease imports. The same point has also been stressed by Singer and Myrdal.[2]

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1 Ibid., pp. 438-444.

2 Singer, op.cit., G.Myrdal, An International Economy; (New York: Harper & Row, 1956), pp. 288-289.

The debate which has followed the publication of the views of Prebisch and Singer has centered on three main items of contention, namely the statistical evidence supporting the alleged tendency of the terms of trade to move in any particular direction, the theoretical explanation of the alleged tendency, and the significance of movements in the terms of trade. Let us examine each item in that order.

Several writers have produced quantitative estimates of the behavior of the terms of trade. While some studies indicate that the trend has been unmistakably for the terms of trade to move against primary products, others deny that such a trend is noticeable. A.H.Imlah produced a series on the British terms of trade spanning from 1796 to 1913.[1] This series shows a declining trend in the commodity terms of trade of the United Kingdom from 1798 to about the middle of the nineteenth century. After that, there is no easily discernible trend until the early 1880s when a favorable movement began which lasted to the end of the series in 1913. The series calculated by Colin Clark for the period 1800 to 1940 shows broadly the same directional trend as the Imlah series and further shows that the favorable trend for the British exports which began around the last quarter of the nineteenth century continued up to the eve of the Second World War.[2] The series compiled by W.A.Lewis also shows a favorable trend for the

[1] Imlah, op.cit., pp. 94-98.

[2] C.Clark, The Conditions of Economic Progress; (London: Macmillan, 1951).

British terms of trade from about 1883 down to the eve of the Second World War.[1] W.Baer has produced evidence tending to show a similar movement for the interwar years and for several years after 1950.[2] From his extensive study of Europe's terms of trade, however, Kindleberger concludes that "no series is completely representative of the world's terms of trade between primary products and manufactures,"[3] and that, on the face of the evidence, "it may be fair to conclude that there is no long-run tendency for the terms of trade to move against primary products in favor of manufactures".[4] Table 2 is reproduced from his study. Paradoxically, he finds that the terms of trade favor the developed and run against the underdeveloped countries because of the latter's lack of flexibility in making economic adjustments.[5] Similarly, T.Morgan, examining data for six countries - the United States, India, Japan, New Zealand, South Africa, and Brazil -

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1 W.A.Lewis, "World Production, Prices and Trade, 1870-1960," Manchester School of Economics and Social Studies, 20, May 1952, pp. 105-138.

2 W.Baer, "The Economics of Prebisch and ECLA," Economic Development and Cultural Change, X (Jan. 1962),pp. 169-182.

3 C.P.Kindleberger, The Terms of Trade: A European Case Study; (New York: John Wiley, 1956), p. 263.

4 Ibid.

5 Ibid.,pp.239,263-64.It must be noted that the failure to make the distinction between primary producers and underdeveloped countries is quite common in this context. Notably, it characterizes the writings of Prebisch and Singer. It is clear,however,that many advanced countries are important producers and exporters of primary products (e.g.,Canada),while the majority of underdeveloped countries produce the great bulk of their manufactured consumption goods and may also import considerable quantities of primary products.

finds no general worsening of the price position of primary producers.[1] Elsewhere, Morgan examines data from numerous sources and concludes that there is no support for any generalization.[2] What he actually finds remarkable is the variety of the price experience. Part of his findings are summarized in Table 3. He feels that the behavior of the terms of trade is better explained by particular circumstances for each particular country, product, or period than by any generalization.[3] Finally, R.E.Lipsey concludes from his study of data for the United States for the period from 1879 to 1960 that "comparisons with exports of U.S. manufactures strongly contradict the belief in declining relative primary product prices; comparison with manufactures imported into the U.S. mildly confirm it. On the whole, there seem to be more instances of primary products relatively gaining than losing."[4]

On the face of this evidence, it is clear that no conclusive statistical trend showing an unfavorable movement of the terms of trade against primary producers has been established. Even if one were to discard all the evidence which contradicts the alleged

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[1] T.Morgan, "The Long-run Terms of Trade between Agriculture and Manufacturing," Economic Development and Cultural Change, VIII (Oct., 1959), pp. 1-23.

[2] T.Morgan, "Terms of Trade and their Repercussions on Primary Producers," in R.F.Harrod and D.C.Hague, eds., International Trade Theory in a Developing World; (London: MacMillan, 1963), pp.52-95.

[3] Ibid., pp. 58-59.

[4] R.E.Lipsey, Price and Quantity Trends in the Foreign Trade of the U.S.; (National Bureau of Economic Research: Princeton University Press, 1963), p. 23.

TABLE 2

Industrial European Merchandise Terms of Trade
(1913=100)

Year	Terms of Trade	Year	Terms of Trade	Year	Terms of Trade	Year	Terms of Trade
1900	113	1910	100	1926	109	1936	130
1901	113	1911	101	1927	109	1937	124
1902	109	1912	100	1928	108	1938	134
1903	109	1913	100	1929	109	1947	125
1904	108	1920	96	1930	119	1948	118
1905	107	1921	108	1931	139	1949	118
1906	107	1922	110	1932	136	1950	106
1907	106	1923	114	1933	138	1951	102
1908	108	1924	113	1934	137	1952	109
1909	103	1925	108	1935	135		

Source: Kindleberger, A European Case Study, op.cit., p.12, Table 2-1.

TABLE 3

Median Value of Terms of Trade

Year	Developed Countries	Underdeveloped Countries	Developed Countries	Underdeveloped Countries
	(1953=100)		(1937=100)	
1948	-	-	102	108
1950	-	-	96	130
1951	-	-	98	160
1952	-	-	100	126
1953	-	-	102	125
1954	100	108	102	128
1955	99	106	100	135
1956	99	110	97	131
1957	96	98	97	127
1958	100	90	99	117
1959	100	88	101	123
1960	101	89	102	119

Source: Morgan, "Terms of Trade and Their Repercussions on Primary Products," op.cit., p. 59.

deterioration, however, the statistical basis for such claim would still be open to heavy criticism.

To begin with, it must be remembered that since the terms of trade series represent ratios of price indexes, they are subject to the usual difficulties and limitations of price index number construction. The use of different commodities, weights, and base periods can result in price indexes which give widely different results. In the case of the commodity terms of trade the problem is aggravated by the prevalence in many countries of multiple exchange rates. Moreover, the net barter terms of trade have included only prices of the merchandise items in the current account. Changes in the price of services, however, affect the welfare of trading countries just as much as changes in the prices of commodities. The underdeveloped countries have been, on balance, heavy importers of services from the advanced countries. Now, there is evidence that the terms of trade for services have clearly favored the underdeveloped countries.[1]

Probably the single most serious defect of such price indexes is that they can take account only imperfectly, if at all, for changes in the quality of the products over time and for the introduction of new products. The price of new products typically tends to decline during the years immediately following their introduction. This may give an upward bias to the price index. Similarly, if

[1] C.P.Kindleberger, "Terms of Trade for Primary Products," in M.Clawson, ed., Natural Resources and International Development; (Baltimore: John Hopkins Press, 1964), p. 342.

quality changes are more concentrated in manufactures than in primary production as it is commonly believed, then the failure to take these changes into account results in a strong upward bias in the price index of manufactures. Consequently, evidence of adverse movements of terms of trade against primary products may be deceptive. Kindleberger has suggested that allowance for quality changes may not only reinforce his conclusion that the terms of trade have not deteriorated for primary producers, but

> On the contrary, if allowance is made for the unprovable but generally accepted fact that the improvement in the quality of manufactures over the past eighty years has been greater than that of primary products, the terms of trade may have turned against manufactures and in favor of raw materials per unit of equal quality, however that may be defined.[1]

Moreover, in most of the studies which support the deterioration hypothesis the terms of trade were derived by inverting the British terms of trade. This was done mostly because data for the underdeveloped countries was not available. This method, however, has serious weaknesses. One of these is that British import prices were c.i.f. while export prices were f.o.b., so that import prices included transportation costs but export prices did not. Since transportation costs have declined a great deal, the price of the British imports could have fallen even if the price received for these products by the exporters would have remained unchanged, or even risen. Similarly, the prices paid for British

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1 Kindleberger, A European Case Study, op.cit., p. 263.

exports could have fallen, even though the British f.o.b. price had risen. Several writers believe that this factor is of crucial importance. Morgan estimates that while transport costs accounted for only 10% of the value of world trade on the eve of the Second World War, they might have accounted for as much as 30 to 70 percent a century earlier.[1] P.T.Ellsworth examines Prebisch's and other data and distinguishes three periods in which there is a noticeable trend for the terms of trade to move against primary producers, that is 1876-1905, 1913-1921, and 1929-1933.[2] The explanation of these movements, according to him, lies in declining transport costs during these periods. He states that "a large proportion, and perhaps all, of the decline in the British prices of primary products can be attributed to the great decline in inward freight rates,"[3] adding that, after taking factors such as these into account, "relatively little remains to be accounted by any all-encompassing theory such as that advanced by Prebisch".[4]

A further weakness is the excessive aggregative effect of such a method. The aggregation of all primary commodities in a single group hides divergent movements in the terms of trade of sub-groups

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1 Morgan, "The Terms of Trade between Agriculture and Manufacturing, op.cit., p. 6.

2 P.T.Ellsworth, "The Terms of Trade between Primary and Industrial Countries," Inter-American Economic Affairs, X (Summer, 1956), pp. 47-65.

3 Ibid., p. 55.

4 Ibid., p. 51.

and individual commodities within such a group. Interesting examples may be found in the United Nations publication World Economic Survey.[1] In the period from 1927-29 to 1955-57, the "real unit value"[2] of various commodities improved in varying measures ranging from more than 60% for copper and lead, 40% for coffee and cocoa, to 14% for tea. Rubber, however, declined by 31%, butter 34%, wheat 15%, and cotton 6%. Since 1946-48, instead, the entire food group declined from 24-32%, and lead by 17%. Copper, however, gained by 71%, rubber 47%, coffee 104%, and tea 21%. In the same manner the aggregation of nations into two groups, either developed and underdeveloped, or industrial and primary producers, masks divergences in the behavior of the terms of trade of individual countries. Individual underdeveloped countries export widely different products to different advanced countries. It is quite probable, therefore, that the behavior of the terms of trade of various countries would show considerable divergences even with respect to Britain alone. As Haberler puts it, "can anyone seriously maintain that the long-run change in the terms of trade is the same for a) agricultural exports (Argentina, Uruguay), b) mining countries (Bolivia), c) coffee exporters (Brazil), d) petroleum exporters (Venezuela)."[3] Yet, as Cairncross

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1 United Nations, World Economic Survey, (1958), Table 7.

2 Real unit value is the import value deflated by a world manufacturing unit value.

3 G.Haberler, "Critical Observations on Some Current Notions in the Theory of Economic Development," L'Industria, II (1957), p.8. Reprinted in T.Morgan, G.W.Betz, and N.K.Choudhry, eds., Readings in Economic Development; (Belmont: Wadsworth Publishing House, 1963), p.234.

has said, "the terms of trade of a group of countries are of little interest to individual members of that group unless they are all affected in roughly the same way - an assumption far removed from everyday experience".[1] Kindleberger's study, moreover, indicates that the terms of trade of other European industrial countries have behaved somewhat differently from Britain's; the British terms of trade seem to have improved considerably more than those of other countries.[2]

On the basis of all this evidence, therefore, it is quite clear that the statistical basis which supports the hypothesis of secular deterioration of the terms of trade of primary producers or underdeveloped countries is far from convincing. Future empirical investigation in this field must devise better indexes and take a less aggregative approach if it is to provide at least a simple statistical consensus as to how the terms of trade have really behaved.

In the light of these statistical difficulties it is fitting at this stage to comment upon the various attempts which have been made to predict the future course of terms of trade movements. The principal attempts in this direction have been made by Colin Clark, W.A.Lewis, M.K.Atallah, and H.G.Aubrey. Colin Clark, writing in 1944, attempted to predict the terms of trade in 1960.[3]

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1 A.K.Cairncross, "International Trade and Economic Development," Economica, XXVIII (Aug.,1961), p. 240.

2 Kindleberger, A European Case Study, op.cit., pp.53-57,72-85, 225-232.

3 C.Clark, The Economics of 1960; (London: MacMillan, 1944).

His calculations, based on the expected industrialization of China and Japan with consequent expansion in the supply of manufactures and in the demand for primary produce, indicated that the terms of trade of primary producers would improve by 90% over the 1925-34 average. W.A.Lewis, assuming different rates of growth for the agricultural and industrial sectors, expected that the terms of trade for agricultural produce would show in 1960 an improvement over the 1924-35 level ranging from 22% to 39% depending on whether one made "lower" or "higher" assumptions.[1] According to Lerdau, both these writers underestimated the post-war growth in the supply of primary commodities, while Clark's study also overestimated the demand for them.[2] The result has been that both writers, especially Clark, have overestimated the terms of trade movement in favor of primary products.

Aubrey has boldly attempted to predict the 1975 terms of trade of the United States.[3] He projects the import values of about thirty commodities, which account for nearly two thirds of U.S. imports, by recording numerous appraisals of experts in industry and government about long-term cost trends. For the remaining one third he uses extrapolations of post-war import series. Making

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1 W.A.Lewis, "World Production, Prices and Trade,1870-1960,"op.cit.

2 E.Lerdau, "Stabilization and the Terms of Trade," Kyklos, XII (1959), pp. 362-374,

3 H.G.Aubrey, United States Imports and World Trade;(London: Oxford University Press,1957). Also, "The Long-Term Future of U.S. Imports and its Implications for Primary Producing Countries," American Economic Review, XLV (May, 1955), pp. 270-287.

similar projections for American export prices he reaches the conclusion that the ratio of prices of American imports to American exports will move substantially in favor of imports between the periods 1937/40 to 1975 and 1948 to 1975.[1] From this work, Aubrey concludes that "the danger of secular deterioration of the terms of trade of primary products..... appears no longer as the inexorable threat envisaged by the interpretation of earlier data".[2]

On the other hand, Atallah, basing his forecasts on three mathematical models, has predicted different movements in the terms of trade.[3] Only one of these models, however, according to him describes "in a more explicit way the interplay of factors which influence the terms of trade",[4] the others being based on highly restrictive assumptions. This "realistic" model predicts that the terms of trade will move by about 30% against primary production in the decade after 1952-54.

A casual examination of this evidence would convince one that the attempts to predict future movements in the terms of trade present even greater statistical difficulties than attempts to measure past movements because the predictions depend on the accuracy of the assumptions made about the variables involved.

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1 Aubrey, United States Imports, op.cit., p. 26.

2 Aubrey, "The Long-Term Future...." op.cit., p. 285.

3 M.K.Atallah, The Terms of Trade between Agricultural and Industrial Products; (Rotterdam: Netherland Economic Institute,1958).

4 Ibid., p. 74.

Moreover, the results of the various attempts made have resulted in at least as contradictory predictions as attempts to measure past terms of trade movements. We must conclude, therefore, that such forecasts do not provide at present any conclusive or even solid evidence about movements in terms of trade either way.

If the statistical basis for the adverse terms of trade hypothesis is weak, what about the theoretical explanation?

Part of Prebisch's hypothesis rests on the conviction that the demand for primary products is and is likely to remain sluggish mainly because of the operation of Engel's law and because of the trend to adopt raw material saving technology and to introduce synthetic substitutes in the advanced countries. Now, nobody questions the validity of Engel's law. Even Haberler says that "Engel's law is certainly one of the best established empirical generalizations in economics."[1] But it must be remembered that the law applies only to food and not to minerals and other raw materials. Moreover, it applies to food, but not every kind of food. According to Haberler, "The main objection, however, is that the operation of Engel's law is only one factor among many others",[2] Its impact, then, must not be so great, especially if one remembers that the absolute amount spent on a given import might increase even if the percentage of income spent upon it decreases if income rises fast enough.

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1 Haberler, op.cit., p. 236.

2 Ibid.

As noted in the previous chapter, the adoption of techniques which economize raw materials and the introduction of substitutes has been discussed by Nurkse. It has also been stressed by Singer who sees this trend accelerated during periods of booming demand such as during the business cycle upswing.[1] The impact of this factor, however, is limited by the effects of depletion in industrial countries, the likelihood of increased trade with the Soviet block, and the industrialization of some of the underdeveloped countries.[2] All these factors tend to stimulate world demand for primary products.

It could be concluded, then, that while possibly there are factors which tend to slow down the growth in demand for primary products, the overall effect of these factors does not necessarily and is not likely to result in marked downward pressures on the prices of primary products in general.

What about Prebisch's argument that in underdeveloped countries there is strong competition among factor suppliers and primary producers, so that any technical progress in production results in lower prices but does not change wages and profits, while monopolistic elements in the factor market in advanced countries cause wages and profits to rise as a result of technical progress without falls in prices? Most economists would accept the assertion

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1 H.W.Singer, Comment of the Paper by C.P.Kindleberger, "The Terms of Trade and Economic Development," op.cit., p. 86.

2 A.Maizels, "Recent Trends in World Trade," in R.F.Harrod and D.C.Hague,eds., International Trade Theory in a Developing World; (London: MacMillan, 1963), pp. 42-43.

that in advanced countries technical progress has resulted in higher returns to productive factors. As pointed out by Kindleberger, however, this does not mean that as a result the terms of trade will necessarily move against primary producing countries. Such a result would follow only if monopolistic elements were existent not only at the factor level but also at the product level in the world market, so that the increasing productivity could be distributed in the form of rising money wages and profits, without (or with smaller) rises in prices.[1] Whether firms and trade unions had in fact this power is difficult to say. Haberler maintains that "there is much more competition between manufactures and producers of capital goods now than there used to be one hundred years ago"[2] because there are now more firms and particularly many countries exporting capital goods, machinery, and industrial technology than formerly. Haberler believes that the manner in which gains in productivity are distributed in advanced countries may be bad from the point of view of stability and may have been unjust to fixed-income receivers in the developed countries, but that it did not affect relative prices and hurt "the farmers and other primary producers who know very well how to protect their interests".[3] The contrary view, he maintains,

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1 Kindleberger, A European Case Study, op.cit., p. 247.

2 G.Haberler, "Terms of Trade and Economic Development," in R.F. Harrod and D.C.Hague, eds., International Trade Theory in a Developing World; (London: MacMillan, 1963), p. 284.

3 Ibid., p. 283.

"rests on a confusion of absolute and relative prices".[1] Even if firms and trade unions had this alleged power, however, as G.M.Meier puts it

> the existence of such monopoly elements would at most explain movements in the absolute domestic price level and not changes in relative world prices of manufactures and primary products. World price levels depend on world condition of supply and demand, and a country with a relative high domestic price level may simply find itself priced out of international markets unless it makes some adjustment in its domestic prices or exchange rate.[2]

The same objections can be raised with respect to the alleged differential effects of the business cycle on the countries at the center and at the periphery since much of the contention rests on the presence of different degrees of monopolistic elements in the factor markets.

One can also question the association of higher prices with higher degrees of monopoly. This association is derived from comparative-static price theory which concludes that the monopolist will restrict his output in order to maintain a higher price relative to free competitive producers. Such theory is valid under static conditions, but is not applicable in the context of long-run economic development and growth. To be meaningful in this context such a theory would have to be able to explain how different market forms affect productivity. No well established theory which could give such an explanation exists, however.

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[1] Haberler, "Some Critical Notions...." op.cit., p. 235.

[2] G.M.Meier, The International Economics of Development; (New York: Harper & Row, 1968), p. 62.

Baumol, Galbraith, and Sylos-Labini have asserted that technical progress is a positive function of the size of the firm.[1] Since the size of the firm is greater under monopoly than under perfect competition, technical progress, if they were right, would also be higher under monopolistic competition. Under these circumstances, even the assumption of short-run profit maximization behavior does not permit a definite conclusion as to the level of prices between the two situations since the cost curves would be different. Some writers have stressed these factors as being capable of reversing the Prebisch conclusions about the effect of monopoly on the terms of trade.[2] It must be noted, however, that no conclusive evidence to this effect exists and that, therefore, one could not prove Prebisch wrong on this basis. Nevertheless, whatever evidence there is, it does not seem to support Prebisch's thesis.

It can be concluded, then, that Prebisch's thesis does not rest on solid theoretical foundations. His contentions rest on many loose and disconnected hypotheses which are not rigorously formulated and do not always follow a consistent line of reasoning. Some writers have stressed that it is quite possible to make a case for the deterioration of terms of trade against underdeveloped countries while remaining within the boundaries of established

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1 W.J.Baumol, Business Behavior, Value and Growth; (New York: MacMillan,1959). J.K.Galbraith, American Capitalism: The Concept of Counteravailing Power, (rev. ed.; Cambridge: Boston Riverside Press,1959). P.Sylos-Labini, Oligopoly and Technical Progress; (Cambridge: Harvard University Press, 1962).

2 For example, B.Södersten, A Study of Economic Growth and International Trade; (Stockholm: Almqvist-Wiksell, 1954).

economic theory.[1] Such an approach would be based on the growth and trade models developed by Professors Hicks, Johnson, and Bhagwati, among others.[2] These models show the effects of changes in the fundamental demand conditions, factor proportions, and technology on the comparative advantage of an economy and its terms of trade. Changes in these variables cause shifts in production possibility curves and produce two groups of effects, production effects and consumption effects. The resultant of these effects causes shifts in the economy's offer curve; the amount and direction of such shifts depend on the strength of the production and consumption effects. The ultimate result is changes in the volume, composition, and terms of trade.

A relatively simplified model showing the effects of economic growth on the terms of trade is presented here.[3] The model is set in the usual two countries, two commodities framework. Other assumptions are the absence of transport costs, incomplete specia-

1 For example, Södersten, Ibid.

2 J.R.Hicks, "An Inaugural Lecture," Oxford Economic Papers, V (June,1953),pp.117-135. H.G.Johnson, "Economic Expansion and International Trade," and "Equilibrium Growth in an International Economy," in his International Trade and Economic Growth; (Cambridge: Harvard University Press,1965), chaps. 3 and 5 respectively. J.Bhagwati, "International Trade and Economic Expansion," American Economic Review, XLVIII (Dec.,1958),pp.941-953. Also, "Immiserizing Growth: A Geometrical Note," Review of Economic Studies, XXV (June,1958),pp.201-205. Also, "Growth, Terms of Trade and Comparative Advantage," Economia Internazionale, XII (Aug., 1959),pp.393-418.

3 This model is a simpler version of the model presented in B.Södersten, op.cit., chap. 2.

lization, the occurence of growth in both countries for unspecified reasons, the operation of Say's law, and that everything produced is consumed. The output of the import good in country I and of the export good in country II is seen as a function of time(t) and of the terms of trade (P). Demand is seen as a function of national income (Y) and of the terms of trade (P).

The following symbols are used:

Y_1 and Y_2 = national income in country I and country II respectively.

M = production in country I of the good which that country imports.

X = production in country II of that same good.

C = consumption of the import good in country I.

D = consumption of that same good in country II.

$P = \frac{P_x}{P_m}$ = terms of trade, where P_x denotes the price of country I's export good and P_m the price of that country's import good.

t = time.

Given these symbols and from the assumptions above, it is possible to set the following functions:

$$M = M\ (t, P(t)\ ) \qquad (1)$$

$$C = C\ (Y_1(t),\ P(t)\ ) \qquad (2)$$

$$X = X\ (t,\ P(t)\ ) \qquad (3)$$

$$D = D\ (Y_2(t),\ P(t)\ ) \qquad (4)$$

The market equilibrium for country I's import good (and therefore country II's export good) is given by

$$M + X = C + D \qquad (5)$$

When the market equilibrium for one good is insured, there must be equilibrium in the market for the other good as well; hence, there is equilibrium in the entire economy.

Now, differentiating (5) with respect to time, we get

$$\frac{d(M + X)}{dt} = \frac{d(C + D)}{dt} \qquad (6)$$

And expanding this expression, we obtain

$$\frac{\partial M}{\partial t} + \frac{\partial M}{\partial P}\frac{dP}{dt} + \frac{\partial X}{\partial t} + \frac{\partial X}{\partial P}\frac{dP}{dt} = \frac{\partial C}{\partial Y_1}\frac{dY_1}{dt} + \frac{\partial C}{\partial P}\frac{dP}{dt} + \frac{\partial D}{\partial Y_2}\frac{dY_2}{dt} + \frac{\partial D}{\partial P}\frac{dP}{dt} \qquad (7)$$

Solving (7) with respect to $\frac{dP}{dt}$, we obtain

$$\frac{dP}{dt} = \frac{\left[\frac{\partial M}{\partial t} - \frac{\partial C}{\partial Y}\frac{dY_1}{dt}\right] - \left[\frac{\partial D}{\partial Y_2}\frac{dY_2}{dt} - \frac{\partial X}{\partial t}\right]}{\frac{\partial C}{\partial P} + \frac{\partial D}{\partial P} - \frac{\partial M}{\partial P} - \frac{\partial X}{\partial P}} \qquad (8)$$

Expressing (8) in the form of an elasticity, we get

$$\frac{dP}{dt} = \frac{(R_m M - R_1 E_m C) - (R_2 E_x D - R_x X)}{\frac{C}{P} e_1 + \frac{D}{P} e_2 + \frac{}{P} s_1 + \frac{X}{P} s_2} \qquad (9)$$

where

R_m = the relative rate of growth of country I's import competing sector with constant terms of trade, $\frac{1}{M}\frac{\partial M}{\partial t}$

R_1 = the relative rate of growth of national income in country I, $\frac{1}{Y_1}\frac{dY_1}{dt}$

E_m = the income elasticity of demand for the import good in country I, $\frac{Y_1}{C}\frac{\partial C}{\partial Y_1}$

R_2 = the relative rate of growth of national income in country II, $\frac{1}{Y_2}\frac{dY_2}{dt}$

E_x = the income elasticity of demand for the export good in country II, $\frac{Y_2}{D}\frac{\partial D}{\partial Y_2}$

R_x = the relative rate of growth of country II's production of its export good with constant terms of trade, $\frac{1}{X}\frac{\partial X}{\partial t}$

e_1 = country I's elasticity of demand for the import good with respect to the terms of trade, $\frac{P}{C}\frac{\partial C}{\partial P}$

e_2 = country II's elasticity of demand for its export good with respect to the terms of trade, $\frac{P}{D}\frac{D}{P}$

S_1 = country I's elasticity of supply for its import good with respect to the terms of trade, $-\frac{P}{M}\frac{\partial M}{\partial P}$

S_2 = country II's elasticity of supply of its export good with respect to the terms of trade, $-\frac{P}{X}\frac{\partial X}{\partial P}$

Under ordinary circumstances the denominator of equation (9) can be expected to be positive. The value of e_1 and e_2 is positive unless the imports are inferior goods. The value of S_1 and S_2

might be negative but their sum, if negative, is unlikely to exceed the sum of e_1 and e_2. Hence, the denominator should be positive and the greater its value, the smaller the change in terms of trade required to restore equilibrium after a given change.[1] This is true because a large value for the denominator denotes high values of the elasticities which in turn denotes a high value of adaptability in the trading economies, the two goods being easily substitutable in consumption or in production. If the denominator of (9) is positive the direction of change in the terms of trade will depend on whether

$$R_m M - R_1 E_m C \gtrless R_2 E_x D - R_x X_1.$$

The terms of trade would improve for country I if the left-hand side of the expression were greater than the right-hand side, improve for country II if the contrary were true, and remain unchanged if the equality were to hold. It is easy to see that under these circumstances the important factors are the income elasticities, the rates of growth in the two countries, and whether in each country growth is neutral, import-biased, or export-biased (that is, the rate of growth is the same, greater or smaller in the import-competing than in the export sector).

Now, to go back to Prebisch's thesis, suppose that country I is an underdeveloped country and country II an advanced country,

[1] For a more detailed analysis of the model see Södersten, op.cit. Also, "Foreign Trade and Economic Growth: the Marginal Aspect," International Economic Papers, XI (1959), pp. 184-195.

both countries having a large export sector. According to Prebisch, the income elasticity of demand for primary products is less than unity in industrial countries, while the income elasticity of demand for industrial goods is greater than unity in underdeveloped countries. This is equivalent to saying that, in the above model, $\frac{E_m + E_x}{2} < 1$. Under these circumstances, even in the case of neutral growth the terms of trade would move against country I, the underdeveloped country, if the two countries were to grow at the same rate. The terms of trade would deteriorate even faster for the underdeveloped country if its rate of growth was greater than the advanced country or if its growth was export-biased. Supposing, for example, that the income elasticity of demand for industrial goods is 1.5 in the underdeveloped country and that for primary products in the advanced country is 0.5, the export sector accounting in both cases for 50% of national product, then the terms of trade would start deteriorating for the underdeveloped country as soon as its rate of growth exceeded one third of that of the advanced country. It is this type of growth which has been called "immiserizing growth".[1]

This model, then, permits the formulation of the Singer-Prebisch argument in a methodologically acceptable context. In this context the argument would rest on well established economic theory and its claims would follow from a few plausible assumptions. This method dispenses the advocates of the terms of trade deterioration

[1] J.Bhagwati, "Immiserizing Growth....." op.cit.

argument to have recourse to the multitude of nebulous, unsubstantiated hypotheses about the effects of the business cycle and different market forms on the terms of trade, about the interrelation between factor rewards and the terms of trade, and the rest.

The limitations of this approach must be noted, however. To begin with, the model is set in the familiar two countries, two commodities framework. What would be the result of an extension of the model to the multicountry, multicommodity case is not evident. The alternative is to lump together all industrial and primary products and all advanced and underdeveloped countries into single groups. We have seen, however, that the terms of trade experience of various individual countries and products can be quite varied. The model, furthermore, is of a comparative-static nature. It is quite possible to doubt the validity of extending the conclusions which can be drawn from a model of this type to the long-run, secular case.

Aside from the statistical and analytical weaknesses underlying the Prebisch thesis, the question arises as to the significance of any real or imaginary movements in the terms of trade and the policy implications.

The alleged secular terms of trade deterioration thesis has referred exclusively to the net barter or commodity terms of trade. This, however, is not the only measure of terms of trade. There are several other measures, each representing a different concept.

These are the gross barter, income, single factoral, double factoral, and utility terms of trade.[1] The net barter terms of trade is simply an export price index divided by an import price index. A change in this measure of terms of trade does not indicate what happens to the physical volume of commodities traded, nor can it account for productivity changes. The gross barter terms of trade takes account of unilateral transfers such as reparations or immigrant remittances. The income terms of trade accounts for changes in export volumes; the single factoral terms of trade adjusts the commodity terms of trade for changes in the export industries, while the double factoral terms of trade takes account of changes in productivity in export industries of foreign countries as well. The utility terms of trade is the single factoral terms of trade multiplied by an index of disutility per unit of productive resources used in producing exports and an index of relative average utility per unit of imports and of foregone domestic commodities.[2]

Among these measures, only the net barter, income, and single factoral terms of trade concepts have any significant claim to be practical indicators of the income position of an economy. Now, it is quite conceivable and possible for a country's net barter terms of trade to deteriorate while the income or single factoral terms of trade improve. Haberler and others have cited specific

[1] J.Viner, Studies in the Theory of International Trade; (New York: Harper & Row, 1937), pp. 558-64.

[2] Ibid., pp. 560-61.

examples where the commodity terms of trade would misrepresent the shifts in the real income of an economy.[1] W.A.Lewis claims that the sugar industry is one in which productivity has increased greatly.[2] Output per acre has trebled over the last 75 years. Here is a case where the single factoral terms of trade may have risen while the net barter terms of trade has fallen. Viner says that "systematic discussion of the qualifications which are necessary, or the nature of the connection between the commodity terms of trade and the amount of gain from trade seems almost totally lacking in the literature".[3] From this it is evident that there is need for caution in making welfare inferences from movements in the terms of trade. Unfortunately, this is easy to forget and the temptation to equate changes in terms of trade with changes in a country's welfare and its gains from trade is strong. Yet the welfare effects of changes in the terms of trade must be inferred indirectly and depend upon the character of the forces which cause any given change in the terms of trade. An adverse movement in the net barter terms of trade of a country will in fact indicate a decrease in welfare if, other things remaining unchanged, the adverse change is caused by a decline in the foreign demand for its

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1 G.Haberler, A Survey of International Trade Theory, (rev. ed.; Princeton: International Finance Section, Princeton University,1961), pp.24-29. Also "Terms of Trade and Economic Development"op.cit.,p.286

2 W.A.Lewis, "Economic Development with Unlimited Supplies of Labour Manchester School of Economic and Social Studies,XXII(May,1954),p.183

3 Viner, op.cit., p. 555.

exports. If, however, the decline in export prices results because of increases in productivity of even greater magnitude than the decrease in export prices, then the country's welfare is increased notwithstanding the deterioration in its terms of trade because the country will be able to obtain more imports per unit of productive factors employed in producing exports than it could previously; that is, its single factoral terms of trade have improved. Similarly, changes in the income terms of trade do not always reflect similar changes in welfare because it is not possible to determine whether any changes in the income terms of trade are caused by changes in the price or the volume of exports. The income terms of trade could be taken as a rough index of net gains from trade per unit of export, providing a rough measure of the total gain from trade, other things remaining equal. Imlah, who takes this view, refers to the income terms of trade as the "export gains from trade".[1] Alternatively, it could be thought of as the volume of imports obtainable from an actual volume of exports. This interpretation has been stressed by Prebisch and is identified with the "capacity to import".[2] Whichever one uses, however, movements in the income terms of trade cannot be equated with changes in welfare. Suppose, for instance, that export volume and import price indexes were to fall proportionately. Despite the fact that a smaller amount of exports could exchange for the same amount of im-

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1 Imlah, op.cit.

2 Prebisch, The Economic Development of Latin America, op.cit.

ports, no change in the income terms of trade would occur. The single factoral terms of trade is undoubtedly the best measure of changes in the gains from trade in a world of changing cost structures. Nevertheless, its usefulness is undermined by the calculation difficulties inherent in the index. Productivity indexes are difficult to derive with respect to labor and almost impossible with respect to other factors of production.

The difficulties encountered in the use of the other measures of terms of trade have prompted economists to revert to the net barter terms of trade. Despite its relative simplicity, the limitations of drawing welfare conclusions from such a measure should now be evident. Baldwin says that "It is bad enough that the real income significance of changes in the commodity terms of trade is frequently misinterpreted, but it is even worse that the data on which these conclusions are drawn may not even indicate the true directional change".[1]

Another objection to the adverse terms of trade thesis is that the importance of such movements has been greatly exaggerated. After all, the terms of trade are only one of the factors in the development process, many other factors having a bearing on national income. Smithies, for example, states that "one rarely hears an international economic discussion that does not involve the net terms of trade.....and changes in the net terms of trade are coming

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[1] R.E.Baldwin, "Secular Movements in the Terms of Trade," American Economic Review, XLV (May, 1955), p. 269.

to be regarded by economists as a satisfactory and unambiguous measure of changes in the gains from trade".[1] He finds this fashion "offensive to theory, history, and common sense".[2] Kindleberger finds that continuous attention from underdeveloped countries to their terms of trade is a "form of economic hypochondria".[3] Even H.W.Singer, one of the foremost advocates of the adverse terms of trade thesis, believes that the concern for the terms of trade is somewhat exaggerated. He states that "The whole issue of the terms of trade is perhaps much less important in determining the pattern of economic development than many economists think".[4] He does not subscribe to the view that concern over the terms of trade by underdeveloped countries adds up to "economic hypochondria", however. Some of the concern is very real since "economic development requires increased investment, increased investment requires foreign exchange, foreign exchange is 95 percent export proceeds, and export proceeds are at least 50 percent export prices. And here we are back to the terms of trade!"[5] Elsewhere he states that the "Terms of trade are only one determinant of

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1 A.Smithies, "Modern International Trade Theory and International Policy," American Economic Review, XLII (May,1952), p. 170.

2 Ibid.

3 Kindleberger, "The Terms of Trade and Economic Development," op.cit., p. 85.

4 H.W.Singer, Comment on Kindleberger's paper, Review of Economics and Statistics, XL (Feb., 1958), p. 86.

5 Ibid., p. 85.

national income. They become important only where many of the other determinants are fairly constant",[1] that is, other things equal. He adds, however, that unfortunately this is often the case in underdeveloped countries.[2]

The final question with respect to the whole issue is whether the policies advocated by the proponents of the adverse terms of trade thesis are really the best ones to implement, even if their claims about the behavior of the terms of trade were granted. Kindleberger, for instance, feels that the Prebisch-Singer thesis has been "inadequately demonstrated" but still may not be far off the mark.[3] Elsewhere he says that, recognizing some substance to the claim that the terms of trade have turned against underdeveloped countries, it is not evident what remedies should be taken.[4] He sees any interference with the international price mechanism with a view of distributing income as resulting in "distorting it as an allocative mechanism".[5] Singer, however, in reply to his paper, states that any allocative distortion is likely to be minimal because all the circumstances which put the price mechanism out of

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1 H.W.Singer, Comment on a paper by A.N.McLeod, "Trade and Investment in Underdeveloped Areas: A Comment," American Economic Review, XLI (June,1951), p. 421.

2 Ibid.

3 C.P.Kindleberger, Comment on the paper by R.E.Baldwin, op.cit., p.29

4 Kindleberger, "The Terms of Trade and Economic Development," op. cit., p. 85.

5 Ibid.

action as an allocative force are present in the underdeveloped countries in any case. Among these he mentions widespread unemployment, underutilization of resources, rigidities, immobilities, and non-competing groups.[1] W.Baer, on the other hand, sees governmental intervention at the periphery in the form of protection or subsidization as an attempt to introduce a degree of "counteravailance" to the monopolistic power in the centre, in order to protect the income of the periphery.[2] M. June Flanders rejects this argument and argues pointedly that policies to encourage exports rather than import substitution might be preferable, especially since protection of imports does not expand import capacity as is required for development.[3] Other economists see the problem as being one demanding measures to increase the internal flexibility of the economic structure of the poor economies. Kindleberger, for example, says that "In the long run countries should pay attention rather to the adaptability of their resources than to their terms of trade".[4] More specifically, G.M.Meier sees the fundamental problem centering around the periphery's exports sector's failure to stimulate the rest of the economy.[5] The remedy,

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1 Singer, Comment on Kindleberger's paper, op.cit., p. 86.

2 W.Baer, "The Economics of Prebisch and ECLA," Economic Development and Cultural Change, X (Jan., 1962), pp. 169-182.

3 M.J.Flanders, "Prebisch on Protectionism," Economic Journal, LXXIV (June, 1964), pp. 305-326.

4 Kindleberger, op.cit., p. 85.

5 G.M.Meier, "International Trade and International Inequality," Oxford Economic Papers, X (Oct., 1958), p. 288.

then must lie in development programs which attempt to remove those obstacles that have prevented advances in the export sector from being diffused throughout the periphery's entire economy. Attempts to overcome these internal obstacles are entirely compatible with a general free trade policy.

Given all this evidence, it is difficult not to come to view with skepticism the whole terms of trade issue and the policies advocated by the proponents of the adverse terms of trade thesis. One must conclude that, appealing as such thesis might sound to some economists in explaining why the underdeveloped countries have not developed at a faster rate, it is clear that the thesis has not been convincingly demonstrated and that the failure of the underdeveloped countries to develop at a more satisfactory rate can be ascribed as easily to other factors, such as to the unfavorable characteristics of their internal market, as to any factor concerning their foreign trade, including the behavior of the terms of trade. If the difficulties are purely internal, restrictive trade policies will aggravate rather than help overcome the present difficulties.

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