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The Role of Import-Substitution in Underdeveloped Countries

Farouk M. Bitar
Eastern Illinois University

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THE ROLE OF IMPORT-SUBSTITUTION

IN UNDERDEVELOPED COUNTRIES

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FAROUK M. BITAR

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I. INTRODUCTION

The authorities and people of the underdeveloped areas of the world have been, for a number of years, becoming more and more concerned about and aware of their economic situation. This concern and awareness have been expressed in the form of social unrest and political instability at times and with uneasy internal tension all the time. This situation has not passed unnoticed, however, by the outside world. The developed countries of the world have shown their willingness to assist. The assistance of the developed countries has taken various forms, and it has ranged from economic and technical assistance to educational and health help. Good as it may be, this assistance of the developed countries, it would have been in vain if the underdeveloped countries had not responded positively. At times, they have tried to expand their exports of primary-products. This effort of expanding exports, tremendous as it may have been, failed to radically change the economic position of the underdeveloped countries of the world. As a matter of fact, and for various reasons beyond the underdeveloped countries' control, specialization in primary-products has worked against the interest of the underdeveloped countries. For example, the deterioration of the terms of trade has been beyond the control of primary-products producers. The replacement of primary-products by synthetics and the interruption of international trade for political reasons which are both uncontrollable and, to a large extent, unpredictable to underdeveloped countries.

The above-mentioned causes have motivated the underdeveloped countries, government and businessmen, to look inward to establish local industries. This step has marked the birth of import-substitution.

Historically, however, and as quoted by Professor Albert O. Hirschman in his article, "The Political Economy of Import-Substituting Industrialization in Latin America," the external causes in the late nineteenth century played a major role in motivating industrialization by means of substituting imports in Argentina: "There is no ill wind that does not blow some good...the crisis the country is going through is tremendous —and yet this is a perfect wind for national industry. Many of our industries have had a more or less vigorous protection through custom duties. But all of this would not have been enough had it not been for the crisis of 1875 which gave the impulse to industry and for that of 1890 which strengthened it..."[1]

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[1]Albert O. Hirschman, "The Political Economy of Import-Substituting Industrialization in Latin America," Latin America, Problems in Economic Development, ed. by Charles T. Nisbet (New York: The Free Press, 1969), p. 240.

Import-substitutions have met obstacles and bottlenecks, and taken different forms in the experience of various countries. The theme of this study is concerned with evaluating the role of the import-substitution policy in underdeveloped countries.

The first part will define import-substitution and how it has been developed and the characteristics of this policy in general.

The next section focuses on the essential conditions for successful import-substitution concentrating on the political and social, and on protection and world cooperation as prerequisites for substitutions.

The third part is an attempt to expound on the causes and drives for import-substitution in underdeveloped countries.

The fourth section is devoted to case studies of Brazil, Nigeria, and India, and a discussion of their experience in implementing the import-substitution policy.

The conclusion is a brief summary of with a brief discussion concerning the importance of industrialization by means of import-substitution.

II. DEFINITION AND CHARACTERISTICS OF IMPORT-SUBSTITUTION

Import-substitution is merely the act of a government or individual businessmen in a given country to produce for the home market those manufactured goods which are at present being imported from foreign countries and have a ready national market. Theoretically speaking, this act could be either comprehensive to include all the substitution of all imported manufactured goods, or a country may apply a partial substitution policy. The latter policy, however, has been the policy adopted in most underdeveloped countries and this study is wholly devoted to its discussion.

Import-substitutions have special characteristics which accompanied their creation. (a) They are known as light industries which are produced for the home market consumption. The market is often small and cannot allow full economy of scale. (b) The national markets have been previously supplied with imported manufactured goods from foreign markets. (c) Some of these import-substitution policies take the form of processing primary-products available or engaged in locally assembled commodities of components imported, as in the case of Brazil and Chile in their automobile industries. (d) Most of these substitutions require highly protective policy from foreign competing goods. (e) Industrialization through import-substitution has been the outcome of external pressure, such as the Great Depression and World War II.[2]

[2]*Ibid.*, pp. 242-243.

III. ESSENTIAL CONDITIONS FOR SUCCESSFUL IMPORT-SUBSTITUTION POLICY

This section of the paper is devoted to the discussion of some conditions which are essential to a given underdeveloped country in order to facilitate the implementation of an import-substitution policy. The conditions to be explored are not all economic conditions. However, they have interrelated economic impacts and implications that should be given some attention. These conditions are: (a) the political and social atmosphere in a given underdeveloped country; (b) protectionism and its implications on the import-substitution policy; and (c) the effects of world co-operation and assistance on the advancement of industrialization and hence import-substitution.

A. The Importance of a Suitable Political and Social Atmosphere in a Given Underdeveloped Country

A certain political, social and economic climate should exist before an import-substitution or any other economic development can be successfully employed in an underdeveloped country. It is extremely difficult, however, to set up a common formula of the desired climate which fits all underdeveloped countries. Nevertheless, most development economists stress the importance of changes in the existing political and social institutions of underdeveloped countries of today to achieve economic development and hence import-substitution policies.

To secure the success of an import-substitution policy, the political authorities should be in a sufficiently strong position to carry out the proposed economic program. The political authority should be honest and have the support of the people; and also should have knowledge of the country's ability to cope with the suggested economic policies. These authorities should also be careful not to burden the country with unreasonable and impossible economic targets. It is not enough for a country to have an impressive economic program. The important point is that the political organization should have the power and the ability to translate the figures and the written content of the economic policies into functioning economic projects. Therefore, the existence of a political authority which has the desired qualification is of utmost necessity to make it possible for an economic development policy to survive and bear useful results.

Unfortunately, the crucial problem is that most political authorities in underdeveloped areas of the world suffer from political instability and social and economic backwardness. Actually, some of these authorities are serious obstacles for any kind of economic development, as in some countries of Latin America, Africa, and Asia. Under these circumstances, the need for political change is a prerequisite for a successful import-substitution policy.

In the process of this discussion, a question arises as to the intensity of the political change. Should it be an abrupt change or a gradual change? Sociologists, economists and anthropologists are divided in choosing between the two extremes.[3] They all agree, however, that enough change should occur in the political and social institutions of the underdeveloped countries to enable those countries to march on a paved road to economic development. As mentioned above, there could be no common formula for all underdeveloped countries to adopt because different countries have their own political and social circumstances which are different from the others. Any change must result from taking these circumstances into account and tailoring economic programs accordingly. For instance, some of these countries suffer from semi-feudal political situations as in some parts of the Middle East and Africa, where people live in sordid poverty, lacking education, food, and shelter. Other countries are undergoing dictatorship where political freedom is suppressed as in some countries of Latin America. There is little chance for any economic program to flourish under such conditions.

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[3] Cole Balsier (ed), Constructive Change In Latin America. (Pittsburgh: University of Pittsburgh Press, 1968), pp. 49-53.

The political change argument is meaningless if one does not elaborate on the social conditions. It is curious how one can hardly discuss political realms without probing into the social problems. A glance at the underdeveloped countries of today gives an idea concerning how much social change is needed. The countries of Asia, especially India, suffer from rigid caste systems. Some of the Middle Eastern countries follow tribal customs. The Latin American countries are struggling through chronic social unrest, and all underdeveloped countries of the world lack political stability. It is evident from the course of events in underdeveloped countries that social change does not match the political change. An example is India which has, to some extent, a sophisticated political system while their social caste system is a serious hindrance to economic development.

It is clear that, unless there is a social change accompanied with persistent political effort, it is unlikely to achieve important economic development within the country. Taking into consideration the circumstances of the underdeveloped countries, rapid social change is badly needed.[4]

B. Protectionism

Protectionism has caused continuous controversy. It

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[4]Margaret Mead, "From the Stone Age To the Twentieth Century," Development and Social Change, ed. by David Novack and Robert Lekachman (New York: St. Martin's Press, 1964), pp. 203-205.

has been applied throughout history to achieve different economic purposes in most countries which are now highly industrialized countries. Nevertheless, protectionism is recommended in the early stages of economic development in order to give an opportunity to the various infant industries in the countries to flourish. This is needed because these industries are not in a position to compete with the production of foreign goods. Protectionism may bid the local prices up and give a chance for the local businessmen to gain wind-fall profits. But the government which is ready to apply restrictions on import should be ready to control prices internally. One might claim, however, that protectionism discourages efficiency, both quantitatively and qualitatively. This claim may be theoretically sound, but practically it does not have any credibility. Competition should be among equals to be fair. The countries of the world are too unequal in many respects to have fair competition among them. Under the circumstances, competition tends to favor the strong countries (i.e., the industrialized countries of the world and hurt the underdeveloped countries). Therefore, protectionism is a necessary method to secure the usually small markets of the underdeveloped countries of the world for their local manufactured goods.[5]

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[5]Hla Myint, Economics of the Developing Countries. (New York: Frederick A. Praeger, 1965), pp. 159-164.

There are two ways to achieve the protectionist policy. The first is through imposing tariffs on foreign competing goods by the government concerned. By applying this method, foreign goods will be sold in local markets at very high prices. The natives will not be able to afford those prices, so they will be, in a way, forced to consume the locally made products. This will encourage the domestic industry which presumably will increase employment of both physical resources and manpower. The other method is subsidizing the local industries without imposing tariffs on foreign made goods.[6] The aim of the subsidy is to enable the local industry's goods to be sold at low prices so they can compete with foreign goods. The tariff method is more widely accepted by the nations of the world than the subsidy method.

Generally, protection in any reasonable form will stimulate new investments in a country. The investors will feel that they are secure in their investments and that they will not become victims of competitive foreign goods.

C. World Cooperation and Import-Substitution

An added condition for a climate suitable for import-substitution is the existence of sincere intention on the part of the developed countries to help the poor nations to

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[6] C. A. Cooper and F. B. Massell, "Towards a General Theory of Customs Unions for Developing Countries," Expansion of World Trade and the Growth of National Economics, ed. by Richard S. Weckstein, (New York: Harper & Row, 1968), pp. 276-279.

industrialize. Of course, the principal responsibility of industrialization in the underdeveloped countries is from the people of those countries. But without outside cooperation, industrialization through import-substitution could be an elusive dream. For example, a 1951 report of the United Nations claimed that 19 billion dollars must be invested annually in the underdeveloped countries if per capita income is to raise by a mere two per cent annually.[7] This amount of investment is beyond the means of poor countries; reliance upon international cooperation is, therefore, necessary.

There are two basic reasons for the necessity of world cooperation. First, as implied above, the inadequate amount of savings generated in underdeveloped nations results in the inability to provide internally the capital and the foreign exchange which are need for economic development. Because of the near-subsistence levels of income, saving can hardly come from reduced consumption and, although some new saving can be derived from increases in GNP, this amount is seldom adequate.[8] As Professor Higgins states, "The most obvious thing that foreign aid does is to fill the gap between capital

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[7] United Nations, Measures for Economic Development of Under-Developed Countries, (New York, 1951), p. 76.

[8] Charles P. Kindleberger, Economic Development, (New York: McGraw Hill, 1965), pp. 322-324.

requirements for take-off into sustained growth and domestic capacity for savings and investment."[9] Without the help of foreign capital it would be very difficult for many underdeveloped countries to import the capital goods necessary for import-substitution.

Second, many countries lack the ability to profitably use capital even if it could be provided in adequate quantities. The ability of a country to use a given amount of capital is termed the "absortive capacity."[10]

Capital absortive capacity is limited by the degree a country is able to organize, manage, implement and use capital productively in economic projects. Foreign technical assistance may enhance such limit, especially in those projects which are technologically complicated. It is hazardous, however, to try to estimate the technical absortive capacity since different countries have different states of economic development.[11]

International help can take two forms: private or governmental. Private foreign investment can be encouraged by the richer nations through such methods as direct

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[9]Benjamin Higgins, Economic Development, (New York: W. W. Norton and Company, 1968), pp. 579-580.

[10]Ibid., pp. 57 -580.

[11]Max F. Millikan and W. W. Rostow, A Proposal: Key to an Effective Foreign Policy, (New York: Harper & Brother, 1957), p. 96.

subsidies, guarantees, and tax credits for types of foreign investment which contribute to the development of poor nations. If firms could have tax exemptions on income left in underdeveloped countries, private foreign investment would increase; this type of scheme might be useful in encouraging private investment in import-substitution industries. The idea of foreign investment, however, is suspect in many underdeveloped nations because a large portion of such capital has been in export-oriented extractive industries rather than in projects which make a greater contribution to development.[12] World cooperation by means of governments has been used extensively in the period following World War II. This method may take the form of financial or technical aid or both. Underdeveloped countries could borrow from other countries, especially from the advanced countries of the world which have a capital surplus. These loans could be in the form of either financial or technical aid or both.

[12] Walter Krause, International Economics, (Geneva: Houghton Mifflin Company, 1965), p. 476.

IV. REASONS FOR IMPORT-SUBSTITUTION IN UNDERDEVELOPED COUNTRIES

There are many reasons to justify the movement of underdeveloped countries toward an import-substitution policy. Three main reasons, however, will be discussed below: (a) the advancement of technology in the advanced countries and its impact on the economic policies in the underdeveloped countries; (b) the deterioration of the terms of trade of primary products; (c) the law of comparative advantage of primary-products producing countries.

A. The Advancement of Technology in Advanced Countries and Its Impact on the Economic Policies in Underdeveloped Countries

Technology has widely spread and has been fully utilized in all aspects of economic life in the advanced nations of the world. Ironically enough, the spread of technology has left many nations in the underdeveloped areas with a wider economic gap than ever before. It has played a major role in deteriorating the terms of trade for primary-products. Hence, the spread of technology has had the effect of hurting those countries instead of helping them. Due to advancement of technology, synthetics have been substituted for primary-products, which means less usage of primary-products in the world market. As a result of this situation, exports of primary-products have been retarded. The adverse effects of such advancement have been so alarming that this subject was one of the major topics discussed at the United Nations conference on trade and development which was held in Geneva in 1964.[13]

Regarding the outcome of the United Nations Conference on Trade and Development, there was disagreement on many subjects. Concerning the problems of primary-products, the solution to the problem of l w prices ranged between improving market access and market stabilization by means of international agreement. The 'market access' proposal had been advanced by the United States of America and Britian. The 'market organization' scheme had been supported by France and the European Common Market states. No conclusive policy proposals resulted; the choice of methods was left to the choice of individual nations.[14] There were also different various views about the way the underdeveloped countries should industrialize. "While the Conference was in general agreement as to the role of industrial development as a means for accelerating economic growth, there were however expressed very divergent

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[13]Raul Prebisch, Towards A New Trade Policy for Development, (New York: United Nations, 1964), pp. 11-12.

[14]Harry G. Johnson, Economic Policies Toward Less Developed Countries, (Washington, D.C.: The Brookings Institution, 1967), p. 35.

views...as to which industries constitute the nucleus of industrialization and which industries should first be developed."[15]

True, that the industrialized countries of the world, which are simultaneously primary-products producing countries, have also been affected by the world-wide spread of technology. But the blow has been the hardest for the countries whose economy depends on producing one or two primary-products, such as Venezuela, where ninety per cent of its annual exports is of petroleum.[16]

However, emphasis is made that technology per se is not harmful. It is the inequality of its international usage which is destructive for underdeveloped countries. Even in the event of introducing technology, the country is expected to go through a period of readjustment in the structure of the economy. The process could be tedious, severe, and lengthy in nature.

The discussion of the advancement of technology leads us to the discussion of another important aspect of economic complication from which the nderdeveloped countries suffer, namely, the deterioration of their terms of trade.

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[15]United Nations, Proceedings of United Nations Conference on Trade and Development, Trade in Manufactures (E/CONF. 46/141, Vol. IV, 1964) (New York: 1964), p. 137.

[16]Benjamin Higgins, op. cit., pp. 284-286.

B. The Deterioration of the Terms of Trade

The subject of the advancement of technology and the terms of trade are so interrelated that they could be discussed together. The terms of trade are the ratio of export prices to import prices.

The serious problem is that the terms of trade for primary-products tends to deteriorate proportionately to manufactured goods. The cause of this deterioration, in addition to that of the advancement of technology which has been discussed above and which reduced the demand for primary-products in the world market, is twofold. A first case is the inelasticity of international demand for primary-products. This means that the quantity demanded for primary-products is insensitive to the fluctuation of the prices. Secondly, the quality of primary-products does not usually improve much over time, while the production of manufactured goods improves tremendously. For example, two units of manufactured goods could have been traded for one unit of primary-products ten years ago. Currently, the trader of the manufactured goods would ask for three units of primary-products for each unit of his manufactured goods. Yet this may not be a deterioration of the terms of trade because the primary-producer is paying for a better manufactured good.

Nevertheless, the problems of the terms of trade have preoccupied many economists. Professor Nicholas Kaldor of King's College, Cambridge, in his article, "Stabilizing The Terms of Trade in Underdeveloped Countries," has stated some startling figures about the alarming situation of the terms of trade in those countries:

> While the quantum of exports of under-developed countries increased by some thirty per cent, from 1955 to 1961 the value of their exports has risen by only sixteen per cent, and much of this reflects the rise of petroleum exports which only benefited Venezuela and a limited group of countries in the Middle East.[17]

Elaborating on the same point, another economist, Raul Prebisch, referring to Latin America, has dramatically described the situation of the terms of trade as follows:

> If the average terms of trade for the period 1950-1954 are selected as a yardstick, the effect of the deterioration in 1955-1960 can be estimated at 7,400 million dollars. In other words, more than 60 per cent of the annual increment in exports was wiped out by the deterioration.[18]

Regarding the same problem of deterioration of the terms of trade, a group of "distinct economists," as quoted by Professor Morgan, warns that a slight cut in the prices of primary-products would have the effect of "a cut of

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[17]Nicholas Kaldor, Economic Bulletin For Latin America, (United Nations: New York, 1963), Vol. III, No. 1, March, 1963.

[18]Raul Prebisch, Towards Of Dynamic Development Policy For Latin America, (New York: United Nations, 1963), p. 78.

billions of dollars in aid to underdeveloped countries"[19] because of the loss of income.

The above quotations indicate that deterioration in the terms of trade have had an adverse effect on the economy of the underdeveloped countries of the world. The prices of primary-products have not been rising as fast as the prices of the manufactured goods. These countries are giving up more units of exports of primary-products in order to have a unit of import in manufactured goods. It is important to notice that the prices of primary-products do not fall per se, but those prices do not rise as quickly as the prices of manufactured goods. In other words, the demand for those products does not rise as quickly as the demand of manufactured goods in the world market, which makes it extremely difficult for underdeveloped countries to finance their economic development projects by means of international trade.

The information in Table (1) illustrates the deterioration in the terms of trade of primary-products. Reading the Table indicates that by using the period of 1876-1880 as a base, equal to one hundred per cent, the terms of trade tend to decline for raw materials in relation to manufactured goods. In the period 1946-1947 the raw

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[19] Theodor Morgan, "Trends of Trade and Their Repercussions on Primary Producers," International Trade Theory in a Developing World, ed. by Roy Harrod and Douglas Hague (New York: St. Martin Press, Inc., 1963), pp. 54-55.

materials lost about one third, percentage-wise, of their original prices.

TABLE 1: RATIO OF PRICES OF RAW MATERIALS TO THOSE OF MANUFACTURED GOODS[a] (BASE: 1876-80 = 100)[20]

PERIOD	AMOUNT OF MANUFACTURED GOODS OBTAINABLE FOR A GIVEN QUANTITY OF RAW MATERIALS
1876-1880	100.00
1881-1885	102.4
1886-1890	96.3
1891-1895	90.1
1896-1900	87.1
1901-1905	84.6
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

[a]Average import and export prices, according to Board of Trade data.

*The missing years are war years.

Source: UN, Post War Price Relations in Trade Between Underdeveloped and Industrialized Countries, Lake Success, 1949; cited in UN, The Economic Development of Latin America, Lake Success, 1950, Table L, p. 9.

[20]Walter Krause, Economic Development, (San Francisco: Wadsworth Publishing Company, Inc., 1961), p. 39.

C. The Law of Comparative Advantage and Underdeveloped Countries

The concept of comparative advantage, or as some economists may call it, "international specialization of production," rests on the classical assumption which says that, "A country will gain economically if it concentrates its productive effort along those lines in which it has the greatest comparative advantage or the least comparative disadvantage and, then trades with other countries."[21]

This concept has been adhered to in the case of underdeveloped countries of the world. The supporters of this principle advocate that it is in the best interest of the countries concerned to specialize in the products which yield the most gains for them. This concept has been continuously criticized in recent years and the criticism is still growing.

The rest of this section is devoted to the views of the group of economists who advocate that international specialization has historically worked against the interests of the underdeveloped countries, and that leaving the situation as it is will worsen their lot and weaken their economies rather than improve them.

Although these economists realize that logically the law of comparative advantage allows for the development of new enterprises, they believe that in

[21] Walter Krause, op. cit., pp. 11-12.

reality specialization is equivalent to keeping countries as they are (i.e., primary-product producers with a majority of the population living off agriculture). If specialization is left to the world market, primary producers will have a very difficult time developing any type of manufacturing industry. According to Walter Krause, given the present pattern of trade between the developed and underdeveloped countries, "The raw materials producers are handicapped in any attempt to make or acquire new industry..."[22] Many economists believe that the continued reliance upon primary-products has been the cause of a widening gap between underdeveloped nations and the advanced, industrial nations of the world. This gap causes "discrepancies between their respective abilities to accumulate capital...Thus there exists an obvious disequilibrium of the Internal Division of Labor."[23]

Specialization theoretically suggests, "that trade starts a movement toward income equalization." Yet, in a dynamic world situation, "a quite normal result of unhampered trade between the two countries, of which one is industrial and the other underdeveloped, is the initiation of a cumulative process toward the impoverishment

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[22]Ibid., pp. 132-133.

[23]Gunnar Myrdal, Rich Lands and Poor, (New York: Harper and Brothers, 1957), pp. 51-53, 55, 101.

and stagnation of the latter."[24] The causes of the economic disadvantage of reliance upon primary-products have been discussed in depth in the section on declining terms of trade in this paper.

Proponents of the theory of comparative advantage often argue that it should be interpreted in such a way as to include development of industries in which an underdeveloped country will have a future comparative advantage. However, this defense of the comparative advantage theory is weak because the knowledge required to project a future comparative advantage is too difficult to gather, especially when one considers that there are often a lack of well organized markets and other economic statistics which are necessary when making projections.

The theorists who favor development by comparative advantage generally assume free international trade. But, in reality, the primary producers face tariffs, particularly on agricultural products. Thus, in many cases primary-producers cannot take full advantage of those goods which they produce comparatively cheaper. Likewise, the theory of comparative advantage fails to consider non-market factors such as national pride which comes to underdeveloped countries upon the building of factories.

Another contributing factor which discredits the

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[24] Walter Krause, op. cit., p. 311.

theory of comparative advantage is that this law assumes full employment, when in fact, most underdeveloped countries suffer either from underemployment of their resources or mass unemployment of their labor force. Thus, the social opportunity cost of any number of new enterprises will be near zero, even though the cost to an individual entrepreneur may be comparatively high.

Economists who take a historical approach to development have a further criticism of development by comparative advantage: the present developed countries did not rely heavily on comparative advantage to develop. The United States, for example, relied on protective tariffs in its early stages of development. Why then, should not underdeveloped countries follow the historically successful strategy of development via protection?

The impact of technology, the long-run decline in the terms of trade for primary-products, and the short-comings in the law of comparative advantage could be presented, independently, as reasons for the desirability of an import-substitution policy. The combination of these three arguments builds a strong case for import-substitution policies which could change the present structure of international trade between the rich lands and the poor.

V. PROBLEMS AND CASE STUDIES OF IMPORT-SUBSTITUTION IN UNDERDEVELOPED COUNTRIES

An import-substitution policy, as any other industrialization program in an underdeveloped country, helps to remove some of the "disguised unemployment" from agriculture to the import-substitution producing sectors of the economy. This tends to increase productivity of the economy as a whole.

There are several shortcomings, however, which undermine the policy of import-substitution. Some of these shortcomings are discussed below.[25]

(a) One of the difficulties is that industrialization through import-substituion has its own limits, because the import-substitution sector is a light industry sector in nature. In other words, this method of industrialization has a point of saturation beyond which it cannot go any further; if heavy industry is deemed desirable, more capital and more technology will be required for the next stage. Furthermore, the more a country expands its industrialization through substitution, the more its imports will be of either raw materials or intermediate

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[25] James D. Theberge, Economics of Trade and Development, (New York: John Wiley & Sons, Inc., 1968), pp. 511-512 and Maria Conceicao Tavares, "The Growth and Decline of Import Substitution Brazil," Economic Bulletin for Latin America, Vol. IX, No. 1, March, 1964, pp. 6-7.

goods or both. This, by itself, is an economic burden.

(b) Industrialization through import-substitution has been a result of outside pressures which are beyond the control of the country, as well as the result of import restrictions or ban of imports. The policy of import-substitution has been the outcome of major historical events, such as the Great Depression of the nineteen thirties or the Second World War. These and similar events have interrupted the importation of goods to underdeveloped countries and have given the opportunity for spontaneous import-substitution policy to develop. Thus, some import-substitution units have been producing goods that are not essential for the country's economy, regardless of the cost. To illustrate this last point consider the following hypothetical case. Assume that Country A has been importing cosmetics from Country B for a number of years; suddenly a major historical event has occurred that interrupted international trade and, hence, the import of cosmetics to Country A. In Country A a case for import-substitution has developed; cosmetics can be produced internally with a ready market to absorb the production. This illustrates what economists James D. Theberge and Maria Conceicao Tavares claim of non-essential goods.[26]

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[26] *Ibid.*, Theberge, pp. 511-512 and Conceicao Tavares, pp. 6-7.

(c) Though protectionism is a necessary tool for the implementation of a successful import-substitution policy, excessive protectionism may prove harmful. Excessive protectionism will adversely affect competition and efficiency. In the particular absence of governmental price wage control, harmful inflation occurs.

(d) The size of the market is a very decisive element. Most often, underdeveloped countries are producing on a large scale, while they have small markets to absorb the production which the import-substitution sector may produce. In other words, the situation of most markets in underdeveloped countries does not allow the economies of scale to function properly. Also, these countries are primarily producing for a domestic market and they cannot depend on international markets. These circumstances may favor single-product markets where one firm dominates. Since the whole idea behind the import-substitution policy is to give the underdeveloped countries some independence from the international market, this independence fails to improve because those countries are becoming more and more dependent on the advanced countries for capital goods. A vicious circle exists.

Infrastructure also is a crucial element which severely limits the markets of underdeveloped countries. For example, it is typically in underdeveloped countries that the citizens of major cities in those countries enjoy consumer goods which are unknown to the people of the remote areas of those countries. An important reason for this is the lack of adequate transportation.

(e) Most of the import-substitution sector is financed by foreign capital. Investors who are accustomed to the use of modern technology which suits most communities in advanced foreign countries do not take into account the social and economic circumstances which prevail in the underdeveloped countries.

(f) Another defect which is related to the last one is the problems of a lack of skilled labor and scarce capital faced by technological application. This problem is a tremendous one because of the time required to develop an army of skilled laborers to meet the demand the import-substitution sector requires.

The scarcity of capital is an unsolved problem in underdeveloped countries. Some economists suggest that underdeveloped countries should implement the labor intensive method wherever labor is abundant. However, the argument about which method to be used is beyond the scope of the present study. Suffice it to point out that the problem of the scarcity of capital is crucial. This will be briefly discussed later.

For specific examples, three case-studies for three different countries are described below. These countries are Brazil, India, and Nigeria. The choice of these particular countries is only due to the availability of sources.

A. BRAZIL:

The cause for the flourishing import-substitution sector in Brazil has been due to the decline in export earnings;[27] and is also due to external crises, such as war, which had the effect of limiting imports from industrialized countries. Moreover, the government of Brazil has played a major role in encouraging the import-substitution sector.

In 1955, the Brazilian government established some rules to allow foreign investors in Brazil to import capital goods if the investment proved to be of vital interest to the economy of Brazil. Hence, investment in some basic industries took place as in the case of the steel and the automobile industries which grew particularly after World War II. Furthermore, the Brazilian government protected local industries by the means of a tariff and extended this protection to newly manufactured goods produced in Brazil, regardless of whether or not these manufactured goods were financed by foreign or

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[27]Werner Baer and Isaac Kerstentetzky, "Import Substitution and Industrialization in Brazil," American Economic Review, May, 1964, Vol. LIV, pp. 411-436, and Werner Baer, Industrialization and Economic Development in Brazil, (Homewood: Richard D. Irwin, Inc., 1965), pp. 138-44.

national capital. This procedure was called the "Law of Similars," and had been used as a criterion in protecting Brazilian produced goods from foreign competing goods.

In summary, the Brazilian government has been offering protection for any needed industry in Brazil by closing the door on imports from foreign competing goods.

The effect of industrialization through import-substitution on economic life in Brazil was spectacular. Economic growth has been achieving a very impressive rate which could be legitimately attributed to industrialization through import-substitution. The information in Table (2) indicates an idea about the situation of economic growth of Brazil.

The rate of real growth in Brazil during the period 1962-1966 fluctuates. The rates of real growth for the period were five and one-tenth percent in 1962, two percent in 1963, three percent in 1964, three and eight-tenths percent in 1965, and four and six-tenths percent in 1966. No reason has been given for these fluctuations. However, they could be attributed to the fact that in the early stages of economic development, countries achieve a higher rate of growth than in later stages, as happened in the USSR after the 1917 revolution, and in West Germany after World War II.[28]

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[28]The rates of growth for the periods 1963-1966 were calculated from the 1968 <u>United Nations Statistical Yearbook</u>, p. 550.

TABLE 2: INDICATORS OF BRAZIL'S GROWTH AND FOREIGN POSITION[29]

	FIXED INVESTMENTS GNP (PERCENTAGES)	RATE OF REAL GROWTH	TERMS OF TRADE (1953=100)	EXPORT QUANTUM (1953=100)	BALANCE OF PAYMENTS: CURRENT ACCOUNT BALANCE (MILLIONS OF U.S. DOLLARS)	FOREIGN DIRECT INVESTMENT (MILLIONS OF U.S. DOLLARS)
1947	... 17	1.8	45	127	n.a.	n.a.
1948	... 16	9.5	44	131	n.a.	n.a.
1949	... 15	5.6	53	117	n.a.	n.a.
1950	... 13	5.0	93	102	+104	28
1951	... 16	5.1	95	109	-470	70
1952	... 16	5.6	90	90	-709	118
1953	... 13	3.2	100	100	+ 17	109
1954	... 17	7.7	134	86	-235	75
1955	... 14	6.8	118	100	- 34	109
1956	... 13	1.9	113	108	+ 7	248
1957	... 13	6.9	117	100	-299	356
1958	... 14	6.6	119	96	-266	230
1959	... 16	7.3	109	117	-311	214
1960	... 15	6.3	101	118	-509	137
1961	... n.a.	7.7	97	128	-241	169

Sources: Fundacao Getulio, Vargas, Conjuntura Economica and Revista Brasileira de Economia, Marco, 1962; AUMOC, Boletin, Maio, 1963.

One problem of industrialization, however, is that it is capital intensive and not labor intensive. However, this is not an immediate danger because industrailization in underdeveloped countries will eliminate "disguised unemployment" and increase the general productivity of the

[29] Werner Baer and Isaac Kerstenetzky, "Import Substitution in Brazil," American Economic Review, LIV (May, 1964), p. 415.

country as a whole. For example, the Volkswagon auto factory has increased its labor forces thirty-two times in the last thirteen years. In 1957, Volkswagon was employing seven hundred and fifty-six and now twenty-three thousand employees in 1970.[30] Industrialization would be expected to attract workers from the agriculture sector.

The purchasing power in the Brazilian market is expanding. One may argue, however, that there are too many automobile firms, taking into account the size of the market, to secure profitable business for all of them. Furthermore, an element which could be alarming for the Brazilian economy, is the fact that a large share of private foreign investment is financing the import-substitution sector. This situation will increase the dependence of Brazil's industry on foreign investment instead of building its own capital. However, Brazil's economic problems have not completely been solved "since lags occurred in such sectors as agriculture, infrastructure facilities, and there still exists little effort to diversity exports."[31]

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[30] The Christian Science Monitor, July 23, 1970, Boston, p. 10.

[31] Werner Baer and Isaac Kerstenetzky, op. cit., p. 424.

B. NIGERIA:

The Nigerian experience is different from that of Brazil. Nigeria's industrialization efforts are highly connected with the country's primary products. Nigeria concentrates in the field of processing, but the motives behind the development of the import-substitution are similar to those of Brazil's. Nigeria has a good system of transportation which ties the country together. This system has helped in expanding industrialization through import-substitution. Also, protection for local products is high in the form of tariffs on imported goods. These tariffs are as high as fifty-five per cent of import competing goods.[32] Nevertheless, the size of market is decisive in Nigeria because of its relative smallness.

Private foreign investment in Nigeria is at the same level as in Brazil, if not higher, but in Nigeria "foreign managers and technicalities account for thirty per cent of the total labor cost."[33] The experience of import-substitution in Nigeria is remarkably different than that of Brazil. Nigeria is more engaged in light industries. Examples are the cigarette and the beer industries.[34]

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[32] Ibid., p. 28.

[33] Peter Kilby, Industrialization In An Open Economy: Nigeria, 1965-1966, (Cambridge: The University Press, 1969), p. 29.

[34] Ibid., pp. 82-100.

In the case of cigarette production, the data in Table (3) indicates the tremendous growth in the industry for the period 1939-1965. In 1939, it was 173 million cigarettes, while in 1965 it was 4,783 million. This was at the expense of a severe decline in imported cigarettes. Imported cigarettes were about 285 million in 1939 and declined to 54 million cigarettes in 1965.

TABLE 3: THE GROWTH OF DOMESTIC CIGARETTE PRODUCTIO IN NIGERIA[35]

	(Millions of Cigarettes) Domestic Production*	Imports
1939	173	285
1940	...	145
1941	271	224
1942	303	219
1943	411	172
1944	459	160
1945	522	178
1946	559	282
1947	697	430
1948	729	363
1949	739	454
1950	901	494
1951	1,397	267
1952	1,932	75
1953	2,126	92
1954	2,250	64
1955	2,506	79
1956	2,650	44
1957	2,188	64
1958	2,953	78
1959	2,749	61
1960	2,871	104
1961	3,353	108
1962	3,488	73

*Excludes home-made and smuggled cigarettes.

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[35] *Ibid.*, p. 82.

TABLE 3--Continued

	(Millions of Cigarettes)	
	Domestic Production*	Imports
1963	4,040	104
1964	4,124	74
1965	4,783	54

*Excludes home-made and smuggled cigarettes.

Sources: United Nations, Statistical Yearbook, various years; and Federal Office of Statistics Trade Report, various years.

However, taxation on imported cigarettes is extremely high. It is eighty per cent of the value of imported cigarettes.[36]

The development of the cigarette industry, however, is flourishing by the imposition of protective tariffs. One point against this situation is that, although the tobacco industry helps the country by saving foreign exchange and possibly helping to decrease unemployment on a small scale, the fact remains that the cigarette industry in Nigeria is legitimately considered a consumption good. The capital could have been invested on industry of a more basic nature. This question, moreover, could lead to fruitless debates about the availability of such

[36] Ibid., p. 26.

possibilities and capability of building more basic industries in Nigeria.

The situation in the beer industry almost is the same as that in the cigarette industry, except that the beer industry has lower tariffs imposed on it. The brewing industry, however, is financed by foreign capital with little effect on unemployment, since the industry is "of highly automated, capital-intensive technology."[37]

The Nigerian case can be summarized by noting that the large part of the import-substitution industrialization sector was initiated by individual firms which already had commercial interest in the Nigerian Market. Shielded by protection, these firms have had the market ready for them to start substituting and producing local products. The import-substitution procedure in Nigeria is engaged mainly in the consumer-goods industry, rather than durable goods industry, as in the case of Brazil and India. Nevertheless, according to Professor Gerald K. Helleiner some heavy industries, such as iron and steel factories, are being considered.[38]

Nigeria has experienced concentration on light industries which may adversely affect the economy in

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[37] *Ibid*., p. 97.

[38] Gerald K. Helleiner, *Peasant Agriculture, Government, and Economic Growth in Nigeria*, (Homewood: Richard D. Irwin, Inc., 1966), p. 330.

the long run. In spite of this, Nigeria has increased its economic status and successfully attracted a host of foreign investors.

C. INDIA:

Though the situation of import-substitution of India is basically similar to that of Brazil and Nigeria, the experience of its import-substitution policy is unique. In both Nigeria and Brazil, governments have interfered only to protect private enterprise from foreign goods, while in India the situation is described best as India's industrialization is neither planned nor left completely to free enterprise, in the sense that there are some major economic projects which are adopted by the government and others by private firms. Nevertheless, the dilemma in India is that it is extremely difficult to create some sort of coordination between the government sector and the private sector which makes it hard to substantially carry out the economic programs.

The Indian authorities, realizing the desperate economic situation of their country, have tried to introduce industrialization to India. The Indian government stresses that industrialization should be rapid in order to create more jobs and eliminate poverty. To achieve this, India emphasizes the importance of building heavy industry:

> Rapid industrialization is the core of development. But if industrialization

> is to be rapid enough, the country must aim developing industries which make the machines needed for the larger number of industries in the field of consumer goods and intermediate products. This is possible only if substantial expansion is undertaken in iron and steel, non-ferrous metals, coal, cement, heavy chemicals and other industries of basic importance.[39]

But, industrialization takes more than impressive and enthusiastic statements to be realized. The problems of the India import-substitution differ completely from the other two case-studies. India's problem is not the size of the market per se. On one hand India has a physically large market since its population ranks second only to China. But this huge population is poverty-stricken and the purchasing power is deplorably ineffective, which limits the size of the market.

> Many of these industries are surprisingly tiny. There are four units that produce passenger cars, but the total annual production is not over 25,000. Domestic refrigerators, washing machines, dryers, vacuum cleaners, cameras, watches, clocks, motorcycles, etc...are produced a few thousand articles annually and by numerous small plants.[40]

In the case in which the Indian government has attempted to plan substitution through planning, it has been hindered by many obstacles. For example, data for

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[39]S. Chandrasekhar, American Aid and India's Economic Development, (Frederick A. Praeger, Publishers, 1965), pp. 104.

[40]V. S. Varticar, Commercial Policy and Economic Development in India, (New York: Frederick A. Praeger, Publishers, 1969), p. 110.

adequate planning have not been available for prediction of the economic situation. "Thus, imports during 1956-1961 totaled more than eleven billion dollars, some twenty per cent above the plan projection."[41] This situation has been due to an underestimation of imports of both capital and consumer goods.[42]

Another problem facing the development of the planned import-substitution policy is the high cost of the substitutes. "...tires made by a foreign company which always imported rayon fibres have now substituted domestic fibres. For comparable quantities, rayon costs have increased by thirty-five to fifty per cent."[43] High cost products will delay the time when India could compete in the international market. However, the high cost problem is a characteristic which accompanies the development of import-substitution products in most underdeveloped countries.

Transportation is another factor which limits the size of the market. India has a good system of railroads and some main highways. Aside from this, India's regions are isolated.

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[41]Wilfred Malenbaum, "Comparative Cost and Economic Development: The Experience of India," __American Economic Review__, May, 1964, Vol. LIV, p. 395.

[42]__Ibid__., p. 395.

[43]__Ibid__., p. 396.

Ironically enough, India's natural resources are abundant, but India does not have the capital, the know-how, or the entrepreneurship to extract and develop them. This is the reason the Indian government does not act like a "supervisor" as in Brazil and Nigeria but as an actual partner or as a sole owner of economic projects, to help in financing major industries.

Studying the three cases, one can notice that there are some similarities and differences. The similarities are in the procedure used to protect the import-substitution sector from foreign competing goods in each country. Businessmen, as well as governments, seem to be fully aware of the fact that unless a certain protectionist policy takes place, the import-substitution products are not going to survive. In all three cases the market factor is a determining element in deciding whether to establish an industry. In India, however, the market in terms of size and population is not small. But, the poverty stricken Indian population, large as it is, has too limited of a purchasing power to spend on anything other than the necessities of life.

India differs somewhat from Brazil and Nigeria. The market is physically limited in the latter two countries due to their smaller populations. However the per capita income in Brazil and Nigeria is higher than in India. The differences among these case studies are in the decision-making of the individuals or the government agencies. Brazil has made its way to vertical industrialization and achieved a high economic growth rate. Nigeria has invested in light industry built on its primary-products. India has tried to diversify its industrialization. All three countries have achieved varying degrees of success through the application of import-substitution policy.

V. CONCLUSION AND OBSERVATIONS

The results of this paper indicate that the underdeveloped countries are desperately fighting their way for a better life and a higher standard of living. For different reasons, industrialization by means of import-substitution has been heavily emphasized. By applying this method, different countries have gone through different experiences, depending on the availability of capital, natural and human resources, entrepreneurship, technological know-how, and the political and social environment of the countries concerned. The theory of comparative advantage has been working in favor of underdeveloped countries, especially in those countries which are primary-product producers. Protectionism is an effective tool to protect the import-substitution sector of the economy. It has helped in enlarging the foreign exchange savings which can be used now in purchasing capital goods and machinery needed for advancing the import-substitution sector. Protectionism can be a successful instrument, if applied correctly, to protect the import-substitution sector from foreign competing goods and to give a chance for national industries to grow without outside disturbances, such as harmful competition from foreign competing goods. However, excessive protectionism is harmful; it invites inflation and encourages inefficiency. But, authorities in underdeveloped countries can always resort to wage and price control and set a quality standard for products.

It has been pointed out too that the size of the market is an important factor in deciding what to produce. We have seen that in the case of India, the automobile industry is uneconomical, not because of the population size of the market, but because of other factors which limit market size, such as low per capita income of the people and an ineffective transportation system in the country. For smaller markets, as those in Nigeria and Brazil, the market has been helped because of the effective purchasing power of the people. However, in the long run the small size of the market in both Brazil and Nigeria will be a hindrance for the import-substitution sector. The industries in these two countries should look for an outside market to survive.

Although the evidence from the case studies varies in its degree of success in various countries, import-substitution can be an effective tool for industrialization in underdeveloped countries. The success of an import-substitution policy depends on the conditions under which the import-substitution operates. As the conditions discussed in section II are approached, the probability of a successful import-substitution policy is enhanced. However, the process of development is arduous and the social, political and economic conditions differ from one country to another. In conclusion, any attempt to develop a universal formula for the import-substitution policy will be difficult.

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