A THESIS ON THE RATIONALES OF IMPORT SUBSTITUTION INDUSTRIALIZATION STRATEGY

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A THESIS ON THE RATIONALES OF IMPORT SUBSTITUTION INDUSTRIALIZATION STRATEGY

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ABSTRACT

The purpose of this research paper is to try to clarify and evaluate the major issues and arguments in the debate on Import Substitution Industrialization Strategy (ISI) between the neoclassical economists and the development economists. In particular, it will focus on some basic underlying models employed by the two schools of thought, rather than on specific policy recommendations given by either school. It will conclude that the critiques against ISI from the neoclassical economists are based on a static equilibrium model, which can not fully comprehend the dynamic relationship between growth and ISI at a macroeconomic level.

This paper starts by examining the historical background and formative influences of ISI, then goes on to compare and contrast the structuralist rationales for ISI and neoclassical rationales against it. The conclusion I reached is that the fundamental rationales behind ISI-- the infant industry argument, external economies and linkages effects--remain intellectually valid. The issue of terms of trade has important relevance to development economics but should be studied

in a different context.

The general conclusion of this paper is that import substitution as an industrialization strategy remains viable and may be of great importance for less developed countries that want to catch up economically with industrialized countries.

Chapter 1

Introduction

> "Once upon a time there was a field called development economics--a branch of economics concerned with explaining why some countries are so much poorer than others and prescribing ways for poor countries to become rich....
> That field no longer exists." (Krugman, 1992)

Gone with that field is also the popularity of Import Substitution Industrialization Strategy (ISI).

However, the debate on interventionist versus free-market approach to economic development has not been ended in practice or in academic circles. It has not been a debate on protectionism versus free trade, as interpreted by some economists, but a debate on two fundamentally different development strategies.

In the 1950s and 60s, import substitution, involving the development of domestic industry through varying forms of protection, was fairly advanced in almost every less developed country (LDC). The recorded rates of growth in many LDCs far exceeded what had been expected as possible in the three decades before the 1980s. However, it became evident in the 1980s that something had gone wrong in many countries that had practiced ISI, especially Latin American countries where ISI was first introduced. Country after country was confronted with falling real incomes and heavy debt-servicing obligations, and therefore was forced to undergo reform programs.

The striking differences in performance between the NICs and Latin American countries and others that had adopted similar ISI strategy, have also cast serious doubts on the validity of some theories of development economics. "In effect, a counterrevolution has swept development economics away."(Krugman, 1992) The neoclassical resurgence was most striking in the field of international economics, providing a powerful critique of the 1950s arguments for import substitution. Starting from the assumption of superior market mechanisms, neoclassical economists have vigorously attempted to explain the persistence of underdevelopment as the result largely of distorted and inefficient factor and goods markets in the LDCs (Little, Scitovsky and Scott, 1970). Based on a neoclassical approach, the International Monetary Fund and World Bank became actively involved in reorienting economic policies and directing "Structural Adjustment Programs" in less developed countries.

However, the disappointing results of many reform programs in Latin America have generated resentment from the people and theoretic attacks from many economists. In the western sphere, the relative decline of the United States and the rise of Japan and NICs have given rise to new thinking about trade and industrial policy. The debate in academic circles is highly heated, whereas policy makers are under increasing protectionist pressures. Under such a political and economic background, a "counter-counterrevolution in development theory" is called for (Krugman, 1992). The axis of the debates is whether there is validity in arguing for an active role for government in forming industrial policy, or whether free markets are always the best.

The renewed interest lately on the issue of free market versus government intervention, merits a review of the evolution of the ISI strategy, including its concept, origin, the form of its general practice, and the theoretical arguments behind it. This review will help to clarify the major issues in the debate between economists who advocate ISI and those who do not.

I. The Evolution of ISI

A. The Concept of ISI and Its Origin

A.1. The Concept of ISI

There has been little attention devoted to a critical examination of the concept of ISI in the existing literature. A clear distinction should be made between ISI as a historical phenomenon (an *ex post* concept) and as a deliberate policy (an *ex ante* concept). As a historical phenomenon, ISI refers to the general practice of many LDCs, especially Latin American countries, which responded to external disruption of trade by domestically producing substitutes for those previously imported. As a deliberate policy, import substitution is one of the tools that the governments in LDCs may use to undertake industrialization and structural changes.

Although most of the existing literature has treated ISI as an *ex ante* concept, some writers confine ISI to an unnecessarily narrow framework. ISI is usually treated as a trade and tariff theory, which is essentially a micro-level concept. It is true that there is a crucial link between the nature and extent of a country's foreign trade and the rate and pattern of its general economic development. However, the theory of economic development is much broader than the theory of trade. (I will come back to this point very often later in the paper.)

This paper focuses on the connection between growth and import substitution at a macro-economic level. In this study, import substitution is defined as a deliberate industrial policy adopted by governments to establish domestic industries to produce goods that previously were not produced domestically. It will include both previous imports and non-imports. Hence, whether a product is suitable for domestic production or not does not depend on whether it was/is imported. This broader macro-level definition has particular relevance to less developed countries that have a rather narrow range of products and limited imports.

A.2. Origins of ISI

ISI was initiated in many Latin American countries as a passive response to the disruption of trade during the war periods. It was rather a spontaneous process, not based on existing well-established economic theories, but because of either unavailability of imports or insufficient foreign exchange caused by World War I, the economic depression of the 1930s and/or World War II. The historical impulses underlying the practice of ISI, especially the pessimistic view on trade, have had a great impact on how the general process was carried out, what kind of policies were adopted, and how the rationales for ISI were formed.

ISI became more wide spread in the post-1945 world. During the 1950s and 1960s, centuries of colonial domination were reversed. The popular morale combined with nationalist ideas of self-assertion and self-reliance in the newly independent countries led to drive for development. But how is development to be achieved?

Most newly independent developing countries were at a time under colonial rules. Political independence does not automatically bring about economic independence. The inherited particular structures of production and trade from colonial period have given rise to special social-economic difficulties to development, notable among which were highly skewed income distributions and exports of primary commodities (raw materials and foodstuffs) to developed countries.

The process of development could not simply be willed by nationalism. Import substitution came to light at this period as a promising industrialization strategy advocated by many development economists.

B. ISI in the 1950s and 60s

B.1. Development Economics in the 1950s

One legacy of the Great Depression was a strong distrust of the market. On the other hand, the experiences of the Soviet Union and western countries during the war period gave rise to the optimism for national planning. Development economics emerged at that time as a new branch of economics, concerned with the development problems in developing countries.

It was frequently said in the 1950s that the orthodox neoclassical economic theory had little relevance for developing countries.[1] The criticism of the neoclassical economics was of two main types. First, it was said that neoclassical economics was static and was concerned only with the efficient allocation of the given resources, whereas the problem of generating economic growth was dynamic and was concerned with increasing the supply of resources. Second, it was argued that developing countries were suffering from various structural rigidities, thus the

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See, for example, Gunnar Myrdal, *Economic Theory and Underdeveloped Regions* (London: Duckworth, 1957).

neoclassical model of a perfectly flexible and adjustable economy did not apply to the problems in developing countries. (Myint, 1989)

B.2. The General Practice of ISI

ISI generated high rates of growth in developing countries in the 1950s, 1960s and 1970s. Real growth rates of six, seven and eight percent were being achieved on a reasonably sustained basis (Krueger, 1978). However, the potential of ISI seemed to have been exhausted during the early 1980s, and stagflation and severe foreign exchange shortages became dominant problems.

A series of studies support a negative view of ISI performance in the 1960s and early 1970s in most developing countries. Balassa (1971), Bhagwati and Krueger (1973-1976) quantified the welfare effects of a host of Third World trade barriers, which then provided evidence that the barriers imposed significant costs on Argentina, Chile, Colombia, Egypt, Ghana, India, Israel, Mexico, Pakistan, the Philippines, South Korea, Taiwan, and Turkey. Such calculations, however, did not take into consideration the indirect dynamic gains that might have been generated by protection. Another kind of test compares the growth rate that a country experienced in a period of ISI with that in a period of export promotion. However, these comparisons fail to explain clearly the impetus behind a country's improved growth rate. The question remains whether a country's growth rate is depended upon its liberalized trade policy or its import substitution from a previous period which had paved the way for an increased rate of growth in the later period. In 1983, the World Bank conducted a study to investigate the trade polices of the 1970s in 31 countries. The Bank found that GDP growth per person was lower in countries where government policies supported greater price distortions. But there are clear outliers in this study that do not fit the alleged pattern, and the price-distortion variable explains less than half the observed variation in growth rates.

Instead of focusing on the growth rates, some economists carried out studies to analyze the incentive structures of ISI in LDCs. Thus, attention has also been paid to the sectoral and market orientations of a country.

a. Sectoral Orientation

Sectoral orientation refers to a country's choice of a "leading sector" or "strategic sector" which acts as the "engine of growth". Preferential treatment (credit and tax) and protective measures (tariff and non-tariff measures) are provided to these sectors.

Most developing countries gave their priorities to the development of manufacturing industries through ISI. However, as Ray and Sen (1961) stated, there are a number of options open to them:

> (a). They can import investment goods and raw materials to produce consumer goods.
>
> (b). They can import capital goods to make both investment goods which in turn produce consumer goods, and to make intermediate goods and develop domestic raw material supplies.
>
> (c). They can import capital goods to make capital goods.

The great majority of LDCs have pursued option (a). Only a limited number of LDCs (Brazil, India, South Korea) have made significant progress in the establishment of capital goods industries. The typical structure of tariff protection is high for consumer goods, low or zero for capital and intermediate goods. By importing components and engaging in the final assembling process, the less developed countries hoped to industrialize from the top-downward through the ultimate production of the intermediate products and capital goods, i.e., moving on to stage (b) and eventually to stage (c).

Import substitution was seen as crucial in Brazil's industrialization, and its experience was typical of LDCs. (Balassa, 1971) Table I demonstrates the nature of industrial growth, while Table II illustrates the evolution of import substitution in manufacturing industries. Before 1949, manufacturing in Brazil concentrated heavily on food products and textiles. In the first half of the fifties, import substitution focused on consumer durables. As imports of consumer goods were almost completely eliminated, the substitution shifted to producer goods. In the second half of the fifties, domestic production of capital goods, as well as intermediate products grew rapidly. As GDP grew over time, the value of total imports decreased from 16 percent of GDP in 1947-49, to 10 percent in 1948-50, and to 8 percent in 1960-62. (Balassa, 1971)

b. Market Orientation

Market orientation concerns for which market domestic firms produce. It also indicates the scope of competition that domestic firms are facing. Most developing countries encouraged the replacement of imports at the domestic markets at their first stages of ISI. Domestic production was supported by imports of machinery, equipment and raw materials, especially fuels. Thus the economies of LDCs became more dependent on foreign exchange receipts from trade. However, export earnings grew more slowly than GDP, both because new resources were increasingly allocated to import substitution, and because overvalued exchange rates directly discouraged them. Moreover, the limited competition in the domestic markets resulted in inefficiency and lack of international competitiveness.

In the example of Brazil, primary commodities continued to be very important in Brazil's exports, although their share in total exports declined gradually. Table III shows the principal exports of Brazil as a percentage of total exports from 1950-67. Until 1967 primary commodities still accounted for 65.9 percent of total exports.

The composition of LDCs' exports has been clearly changed since the late 1960s. Manufactures accounted for 53 percent of the LDCs' exports of non-oil products in 1982. (UNIDO, 1985:p.38) However, a large proportion (more than 50%) of the total exports of manufactures were accounted for by a relatively few major LDC exporters (about 13).

In summary, import substitution in most developing countries in the 1950s and 1960s took the form of a sectoral orientation toward manufacturing industries and market orientation toward domestic markets. Domestic production was shielded from international competition by high protection barriers, and it was supported by imports of intermediate goods and capital goods.

C. The Neoclassical Resurgence

The alleged failure of policies based on Keynesian economics to alleviate the dominant problems of the 1970s--the simultaneous existence of excess inflation and excess unemployment--has given credence to the neoclassical resurgence. In the mean time, a "counter-revolution" has also taken place in the field of development economics. The economic problems facing most LDCs, especially Latin American countries, combined with the growth of neoclassical economic theories, have indeed swept away many once very popular ideas about development, and, consequently, the Import Substitution Industrialization Strategy which was based on such ideas.

Neoclassical economists have made notable improvements in theoretical analysis since the 1960s. They tried to incorporate various rigidities or market imperfections into their models. The distinction between domestic distortions and foreign trade distortions was made (Bhagwati and Ramaswami, 1963), and the concepts of the effective rate of protection and domestic resource costs (Krueger, 1965) were introduced.

An impressive body of empirical research has also been compiled by neoclassical economists to examine the nature of ISI regimes in LDCs. Some of the most influential studies were done by Little, Scitovsky and Scott (1970), and Balassa and associates (1971). The main message is that protection was excessive and led to an inefficient allocation of resources due to distortions in factor and product markets.

Until now, most of the attacks on ISI from neoclassical economists concentrated on various policy problems and consequent distortions. It is, however, unclear in many studies whether the various policy problems associated with past ISI practice are inherent in the ISI strategy itself or they were only malpractices in individual countries.

The performances of ISI regimes have often been compared with that of so-called EOI (export-oriented industrialization) countries. The successful stories of South Korea, Taiwan, Hong Kong and Singapore, which are generally referred to as Newly Industrialized Countries (NICs), are impressive by any standards. However, which factor. One aspect of the controversy is the very meaning of an EOI strategy. Some scholars maintain that EOI simply means mere absence of anti-export bias (Bhagwati, 1988; Lal and Rajapatirana, 1987), while others see EOI as a conscious export policy, which grants preferential treatment to exporters (Krueger, 1978; Ocampo, 1986). In this paper, EOI is regarded as a strategy that systematically promotes exports. It differs from the IS strategy in most LDCs by its strong outward-looking market orientation. A more detailed analysis of country experiences, as well as the alternative explanations for them, will be given in Chapter 4.

II. Focus and Arrangement of the Paper

As I mentioned at the beginning of this chapter, the debate on ISI has remained controversial even today. Neoclassical economists claimed to have provided a devastating critique, both theoretical and empirical, of the 1950s arguments for protection and import substitution. Advocates of ISI, on the other hand, contended that much of the neoclassical attack on ISI was unjustified, and often times concentrated on the wrong issues. Therefore, there is a need to clarify the main issues in this debate and evaluate both sides' arguments.

This research paper will try to clarify and evaluate the major issues and arguments in the debate on ISI between neoclassical economists and development economists. In particular, it will focus on the different underlying models employed by the two schools of thought, rather than on specific policy recommendations given by either school. It will attempt to show that the critiques against ISI from the neoclassical economists are based on a static equilibrium model, which can not fully comprehend the dynamic relationship between growth and ISI at a macroeconomic level.

Chapters 2 and 3 will summarize the arguments on the three major issues in the debate on ISI advanced by the two schools of thought. Chapter 2 will analyze the argument of the terms of trade, with a brief discussion on the subject of export pessimism. Chapter 3 will expound the other two issues in the debate: infant-industry and external economies arguments for ISI.

In Chapter 4, a re-evaluation of the theories is given, with a brief discussion of the industrialization experiences of Japan and NICs. Chapter 5 will contain the summary of this research paper

Chapter 2

The Terms of Trade

The practice of ISI was closely associated with high protectionist methods and constant efforts of LDCs to diversify their export compositions. The rationale for such a policy partly went back to the export pessimism originated from the experiences in the early part of this century. A more formal theoretical argument centers around the assertion of secular declining terms of trade against primary products.

While being two distinct arguments, the terms of trade argument and export pessimism form a related attack on the neoclassical theory of comparative costs and the free trade policies for LDCs. Some structuralists argue that, unlike the nineteenth century, international trade has no longer been able to function as an engine of growth for LDCs in the postwar period. On the other hand, neoclassical economists contend that the structuralist argument is empirically unjustified.

I. Export Pessimism

ISI was first practiced in Latin American countries as a passive response to the disruption of trade. One of the rationales for such a strategy at that time was wide spread pessimism about the potential for export earnings in the future, especially export earnings of primary commodities. Nurkse (1953), when arguing for "balanced growth", which is a inward-looking development strategy, said:

> "[Balanced growth] is a means of getting out of the nut, a means of stepping up the rate of growth when the external forces of advance through trade expansion and foreign capital are sluggish or inoperative." (p. 15)

Expectation about export prospects is an important factor in the debate on export-led vs import substitution trade strategy. However, a distinction should be made between expectation about exports of primary commodities and expectation about exports of manufactures.

A. Expectations about Primary Exports

The primary producing countries suffered deterioration in their commodity terms of trade and a loss of foreign exchange in the period of the 1930's Great Depression. The decline in export prices, the low price elasticities and income elasticities of demand for primary products led to pessimistic views of future primary product exports. One of the important goals of ISI was to diversify the composition of exports in order to decrease their vulnerability to fluctuations in export markets.

The dependence of most developing countries on commodities for their export earnings is substantially higher than that of most developed countries. Since most LDCs' domestic production relies heavily on imports of essential intermediate and capital goods, a study of primary product exports can throw light on the broader area of development process as a whole.

In a neoclassical framework, products are believed to be identical in the sense that there is nothing inherent in a product that can generate different growth prospects over time. It does not matter whether a country produces primary commodities or manufacturing products, since resources are optimally allocated by perfectly competitive markets. On the contrary, an important aspect of the argument for ISI is that the kinds of products a country produces does matter.

Export Pessimism, however, is not a comprehensive or well-developed formal theory, but rather a popular belief based on general observations of past experience. It is not a justifiable concept to explain standard linkages between primary exports and development. Instead, the question is how primary exports operate to stimulate or retard the development process. Therefore, it is more productive to study the subject of primary commodities in the broader theme of development, i.e., in the terms of trade, linkage effects and capital accumulation, all of which will be analyzed later in the paper.

B. Expectation about Manufacturing Export

The stereotypical picture of trade, with LDC's exporting primary agricultural and mineral commodities to the DCs in exchange for manufactured goods, has changed rapidly in the past two decades. However, the developing countries as a whole are experiencing difficulties and obstacles in expanding industrial export markets. It is argued that the industrial countries have used various measures including tariff and non-tariff barriers to discriminate against the exports of processed industrial goods from developing countries. For example, many developed countries employ an "escalating" system of import tariffs in which the rate of tariff increases with the degree of processing a product has undergone (UNCTAD, 1981).

The speed with which Japan and the NICs have succeeded in penetrating certain markets in the DCs has given rise to increasing protectionist sentiment in western industrial countries. The chances are slim for most developing countries to duplicate the successful stories of the Asian Four (Hong Kong, Taiwan, Singapore, and South Korea) by dramatically increasing their exports to DCs.

However, there is great potential for an expansion of trade among the LDCs themselves. The share of developing countries' imports originating within LDCs rose from an average of 19.4% in 1962 to 30.3% in 1983 (IMF,1985). On various occasions, LDCs sought to join forces in regional custom unions such as the Central American Common Market. Although such experiments have fallen somewhat short of expectations, it is evident that the trend of increasing South-South trade will continue and be of greater importance in the future.

Import demand and export content are greatly influenced by changes in industrial structure and activity. The economic growth of developing countries will create a continuously expanding market for manufacturing products. Therefore, there is no convincing reason to believe that the future of inter-

LDC manufacturing exports is gloomy.

In summary, export pessimism does not form a convincing argument for import substitution. The volume of world trade had been expanding at an unprecedented rate until the first oil shock in the mid-1970s. However, the issue of primary exports has raised many interesting questions in the study of economic development, including the terms of trade argument for protection.

II. The Terms of Trade

Terms of trade is represented by the ratio of export prices over import prices. It reflects the income distribution effect of international trade between countries. There are two sets of issues related to the terms of trade argument for taxes on trade. One is to increase the gains from trade by putting optimal restrictions on trade. The other rests on the pessimistic views of primary export earnings.

A. Increasing the Gains From Trade.

This argument assumes that a country has some monopoly power in the market. If the elasticity of demand for exports is less than infinite, or if the elasticity of import supply is less than infinite, restricting export supply or import demand will improve the terms of trade in a country's favor. There is an optimum degree of trade restriction at which the national welfare is maximized. The theoretical idea that a tariff can turn the terms of trade in a country's favor, and that this may provide a case for a tariff, can be found in writings by Torrens, Mill and Bickerdike.

However, the orthodox optimum tariff or export tax is still a micro-level concept. It may only provide static short-term distributional gains to less developed countries without any sizable changes in their production functions or economic structures. Furthermore, although a tariff or export tax may improve national welfare, it will end up in a zero-sum game from the world point of view, if no dynamic benefits can be generated from the redistribution of the gains from trade. It can not justify promoting domestic production of import-competing goods. Therefore, in general, rationales for ISI do not rest on this line of argument about terms of trade. Instead, attention has been devoted to the subject of terms of trade for primary commodities.

B. Declining Terms of Trade Against Primary Exports

B.1. The Case Presented by The Dependency School

Contrasting to the orthodox economic theories, the assertion that trade leads to development was questioned by many structuralists, among which the dependency school is very influential. They tried to study the relationship between trade, especially primary product exports, and the nature and pattern of economic development and structural changes from a national point of view. Although the dependency school offered a vigorous attack on the ISI practice in Latin American countries, the argument that the main benefits from trade accrue to the DCs justified the practice of trade restriction for domestic industrialization.

The name of Raul Prebisch is most commonly associated with the idea that there is a secular tendency for the terms of trade to turn against the LDCs . Prebisch (1950) argued that increased productivity will lead to reduced export prices at the periphery, but higher wages and higher prices at the center due to monopolistic forces operating in the latter's labor and product markets. Hence, the differences in competitive structure result in depressed prices of primary exports relative to imported manufactured goods.

The theory of "unequal exchange" advanced by Emmanuel (1972) argues that the wage differences between rich and poor countries are the cause of inequality which lead trade to be exploitative of low-wage economies.

Dependency theory has been increasingly criticized since the 1970s. The success of NICs can not be explained by it. The meaning of "unequal exchange" is unclear itself and there is no coherent theoretical foundation for asserting that the exchange is unequal (Brewer, 1990). It is undoubtedly true, however, that the dependency theories have provided many important insights into the relationship between trade and development. There are several sustainable arguments about terms of trade which have important policy implications for LDCs.

First, primary commodities suffer from a downward demand bias, the measure of which is their lower income elasticity compared with manufactures. It is generally agreed that income elasticities of demand for agricultural products are very low so that the demand for them grows more slowly than that for manufactured products. It follows that the prices of agricultural commodities will decline relatively if the productivity in LDCs' agriculture and mining rises more rapidly than demand. In addition, agricultural commodities which are industrial raw materials need to continuously compete with synthetics, which has placed a powerful constraint upon the prices and demand of natural raw materials. Moreover, the rate of growth of demand for inputs (raw materials) tends to be slower than that for the end product because of the tendency for technological advance to reduce the weight of input per unit of manufactured goods.

A downward demand bias is a more sophisticated and convincing argument than the export pessimism. For LDCs, the implications for development strategies are: (1) It is unlikely that primary export earnings can keep pace with the desired growth rate of the economy. Thus (2) primary export production can not act as the "engine of growth", unless its linkages with the rest of the domestic economy are developed. (3) If the linkages with the rest of the economy can not be developed, government policy therefore should not target the commodity production sector as the leading sector. Non-promotion policy, however, is different from discrimination policy against primary exports, which was practiced in many LDCs.

Secondly, primary commodities suffer from an upward supply bias partly because there is excess labor supply in the less skilled sectors in LDCs. The increase in production will lead to reduction in prices due to the competitive nature of the market. The policy implication for LDCs from this argument is to explore their monopoly power by restricting the amount of exports.

Thirdly, primary commodity terms of trade show a secular tendency to decline in the post-1950 era (Colman and Nixson, 1986). Export dependence upon primary products creates economic vulnerability. It has been shown by Bhagwati (1958) in the case of *immizerizing growth* that a country's export growth may actually lower its real income. The loss from worsening terms of trade could more than offset the gain from expanded production possibilities.

Fourthly, the export earnings of underdeveloped countries exhibit a high degree of short-run instability. Since the demand for primary commodities as industrial inputs shifts over the business cycles in DCs, the large fluctuations in foreign exchange earnings are beyond the control of the LDCs and dependent mainly upon the economic activities in the