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by

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I. INTRODUCTION

With the exception of a few nations in North America, Western Europe, and Japan, most nations of the world are classified as economically less developed. These less developed countries (LDCs) may be characterized relative to the developed countries (DCs) by a number of common features, the most important being a low average real per capita income. The patterns of foreign trade are among the most important of the external forces affecting the constraints on development. An LDC can pursue an inward looking development strategy, concentrating on replacing imports with domestic production, or an outward looking development strategy, concentrating on promoting and expanding exports. It is with the latter approach to development that I am concerned.

A prominent theme in economics since the time of Adam Smith has been the belief that foreign trade has a positive effect on a country's development. For several reasons developed in the literature the gains from trade are viewed to be continually merging with the gains from development.[1] Theory tells us that countries with above-average export growth should tend to have above-average output growth. A stronger statement is that countries that have at least neutral if not pro-export trade regimes tend to grow faster than countries with trade regimes that favor import substitution. This is partly because exports and thus import

capacity grow faster, but also for other reasons related to efficiency and technological change.

Empirically there is substantial evidence in the form of both cross-section studies and time-series studies showing significant positive correlation between the growth of exports and the growth of national income.[2] Frequently the conclusion is drawn that the promotion of exports, any and all, is going to be beneficial. In an age of tapering development assistance, and more restrictive international agency lending, this may seem particularly attractive to countries that have undertaken an ambitious development plan and are faced with a growing need for foreign exchange to finance it.

Despite this support, however, there has been criticism of the theory.[3] While there is widespread agreement that a country benefits most from free trade, the emphasis should be on free rather than on trade. There is nothing inherently desirable about trade if that trade is not motivated by market forces. There is nothing in the theory of the gains from trade to justify the general use of policies of export promotion (Bhagwati [3, 1967]). Export promotion can be justified only to the extent that there exists some market distortion or externality that drives a wedge between the socially optimal level of exports and the private level of exports, resulting in either a general underinvestment or a sectional mismatching of financial resources devoted to exports. Thus the conclusion should be that promotion of exports is beneficial to the extent that there exists some

discrepancy in the aggregate between the socially optimal level of exports and the private level of exports and that the particular industries to be promoted are indeed those industries that are underinvested.

Many of the existing empirical studies deal with relatively large numbers of LDCs as a group, as though they were somehow homogeneous rather than unique cases. And/or, they concentrate on LDCs which a priori display all of the implicit characteristics necessary to make the theoretical argument hold.[4] The problem is that there are many individual LDCs that do not display all of these characteristics. And, as such, the policy prescriptions of many of the existing studies may not be optimal for them. The neglect of such countries constitutes a serious gap in the literature on exports and economic development.

In this work an attempt is made to begin to fill the gap by undertaking a case study of Sri Lanka, one of the world's poorest countries which has had a very long history of being export sector oriented in its policies. The objectives of the study are to demonstrate that exports have not been an engine of growth in Sri Lanka and that this failure may be explained in part by an examination of the industry/market characteristics of Sri Lanka's traditional major exports. The objective thus is not to refute the theory that export growth can lead to national income growth, but to introduce the caveat that it will not necessarily do so depending on the nature of the exports.

Sri Lanka (formerly known as Ceylon) is an island nation of about 66,000 square kilometers, located 29 kilometers off India's southern coast in the Indian Ocean. With a population of approximately 15.2 million in 1982 it had a per capita Gross National Product (GNP) of $320 U.S. and a growth rate of GNP/capita of only 2.5% per annum over the period 1960-82. The country was a British colony from 1796 until 1948 when it became an independent republic within the British Commonwealth of Nations.

Other than its farmlands Sri Lanka has few natural resources. The chief consumption crop has always been rice. Historically self-sufficient in its production, within sixty years of the British control over half of the rice had to be imported, as more and more land was turned into plantations for the production of export crops. By the mid-1960's continuing food shortages forced the government to begin land reforms and to refocus long-standing import-substitution programs toward agriculture. Despite this move toward self-sufficiency in food stuffs (which has largely been successful) Sri Lanka's government has taken steps to improve the world market competitive position of its plantations. Government assistance to the plantation industry included replanting schemes based on cash subsidies and fertilizer subsidies to the producers. In addition, the tea industry was further assisted by a factory modernization plan begun in 1966 and by tax rebates.

Major export crops are tea, rubber and coconut products.

Tea is the largest crop in terms of volume of produce, value of produce and land area cultivated. During and after the Korean War Sri Lanka experienced a major tea boom that greatly contributed to a domestic economic boom. In the long run this may have hurt Sri Lanka as it was short lived and when it lasted tended to create a false sense of security. Since the end of the boom Sri Lanka has had to face stiff competition in all three areas. Sri Lanka has always lagged behind the rest of the world in replanting its plantations. The percentage of gross capital formation devoted to land improvement has always been small and it declined steadily throughout the decade of the 1960's. Foreign competitors have made considerable improvements in techniques of cultivation and have raised productivity while Sri Lanka lagged far behind. At approximately the same time the government also began a stepped up program of industrialization aimed at the creation and development of a "new export sector".[5]

II. EXPORTS AS AN ENGINE OF GROWTH?

The question is have exports propelled growth in Sri Lanka? To answer this question a series of tests were applied to data from the 1957-1978 time period. As stated, it is the hypothesis of this study that exports had not done so. Kravis [22,1970] in attempting to develop a test to see if exports were an engine of growth felt that certain characteristics should be present if this was the case. The two primary

characteristics are a high export to Gross National Product (GNP) ratio and that the growth of GNP in one period should be a positive function of the growth of exports in the preceeding period, i.e., Δreal GNP_t = f(Δreal exports $_{t-1}$).

Consider the real export to GNP ratio.[6] Although the average value over the time period was quite high, 20%, the ratio steadily declined over the time period considered (the average annual rate of charge in the ratio was -2.18%) to near 14%. (see table I)

Not only did Sri Lanka seemingly not display the first characteristic neither did it display the second characteristic. Once again using the data for 1957-1978 (first observation 1957-58, last observation 1977-78) the regression equation was found to be

$$\Delta GNP_t = 373.35 - 0.57\,\Delta X_{t-1}$$
$$\qquad\qquad (201.68) \quad (0.32)$$

with an r^2 = .15 which is not significant. Somewhat perplexing is that the correlation is negative. Certainly there exists no theory to predict this and indeed Kravis's approach has been critized for having problems with auto correlation due to the fact that exports are counted in GNP as a positive input.

Due to these potential problems with auto correlation it may be argued that it is preferable to look at the correlation between (x - p) and (f - p), where x represents the per annum growth rate of real exports, p represents the per annum growth rate of population, and f represents the per annum growth rate

of real domestically produced internal final demand (Heller and Porter [15, 1978, p.192]). Thus, in addition to the above, the correlation between the annual growth rates of per capita real exports and real domestically produced internal final demand was examined using the Spearman rank correlation test. Over the total time period considered (1957-78) the coefficient of the Spearman rank correlation between (x-p) and (f-p) is -.336, which is not significant. Surprising, however, was that the observed correlation was once again negative despite substantial theoretical arguments that it should be positive.

When various sub-periods of time were considered some additional surprising results were found. These sub-periods were chosen in regard to significant changes in Sri Lanka's international trade policies. According to Gunasekera [14,1977], the period up to 1965 was characterized by increasing import substitution policies with little attention paid to exports. Although Peiris [29,1977] does note there were some significant changes in the plantation agriculture during this time period. On-the-other-hand, the period from 1965-78 was characterized by a relaxing and refocusing of import substitution programs and in increasing emphasis on export diversification. Karunaratne [18,1979,pp.55-56] notes that there was a "Volte Face in Industrial Policy in 1965." A part of the new development strategy in relation to industrialization was an emphasis on industries with export potential. To promote exports several incentives were offered

to investors including special treatment with regards to: (1) a number of different business taxes, (2) imports of intermediate and raw materials, and (3) foreign exchange. These themes being given more definite emphasis in the Five-Year Plan of 1972-76 (Balakrishnan, [1,1977]. For 1957-64 the coefficient was +.29, which although insignificant was of the predicted sign. For 1965-78 the correlation was negative, with a coefficient of -.47, which is significant at the 10% level. And, for 1973-78 the correlation was again negative, with a coefficient of -.89, which is significant at the 5% level. Thus, it appears that not only can we conclude that exports have not been an engine of growth in Sri Lanka, but that perhaps over time they may actually have begun to inhibited it.

III. THE EXPORT SECTOR

Since exports were not found to be an engine of growth in Sri Lanka, it is both interesting and important to ask why. The studies by Michaely [26,1977], and Heller and Porter [15,1978] both suggest that there is a minimum threshold of development needed before export growth and economic growth are associated. Indeed, Balassa [2,1978] looks only at countries which have already established an industrial base. While this is a possibility, I believe that the reason for this lack of correlation may well be found by examining the export sector of Sri Lanka.

Since tea, rubber, and coconut products annually constitute about 88% of the value of all exports, an examination of these products is a good place to start. One possible reason for the failure could be that the country has failed to substitute products exported in response to changes in demand. Love [25,1982, p.52] found "that the demand factor is the single most important determinant of developing countries' export performance..." Due to the unique nature of Sri Lanka's three major exports this is a strong possibility. Tea, rubber, and coconuts all have long lead times and are geographically sensitive. Long lead times can best be defined by example. If the price of rubber goes up one year, you cannot plant a tree and expect to start harvesting it the next year. Instead, you must wait a long time before you can increase the quantity of rubber available for export. Tea is a classic example of geographic sensitivity. The location of the crop is determined purely by elevation and climate conditions to which the crop displays a remarkable sensitivity. However, once a rubber or coconut tree, or a tea bush is planted it will live for decades with little care. Hence the yield of the three products is fairly constant over long periods of time, with increases in output the result of long range planning and new technology (improved fertilizer, irrigation, harvesting methods, and the like). Undoubtedly, many of the tea bushes being harvested in the 1960's were planted in response to the tea boom of the early 1950's. Since the domestic markets for these products are

small relative to output, once the products are harvested there is little alternative but to sell at the going price for exports.[7] Also, the response of GNP to export growth is powerfully affected by what is happening to the terms of trade, which generally declined over the period. It should be noted that the cause of export based growth--growth of exports--is also the cause of immiserizing growth in the presence of highly inelastic export demand. Furthermore, Gunasekera [13,1974,p.86] notes that in the case of Sri Lanka "although both demand and supply factors have led to the slow growth in plantation agriculture, the demand side seems to have had the more deterrent effect." A survey of data for tea and rubber reveals in both cases the quantities produced and exported are generally increasing overtime while the real average f.o.b. unit values have been steadily decreasing. One implication is that because the plantations already exist and the fixed costs are high relative to the variable costs the exporters have responded to the world price turning against them by increasing the quantity exported. Since these crops are Sri Lanka's principal sources of foreign exchange, the increase in the quantities exported may be viewed as efforts to maintain the foreign exchange earnings of the country. In the short run, which may be very long for these products, as long as the world price is at least equal to the increased cost of variable inputs export quantities will increase. We suspect then that in terms of the traditional major exports Sri Lanka will have to run very fast to stay in the same

place.

There is considerable evidence that success in promoting manufactured exports is critical to the course of industrial development, Chenery, [8, 1980]. The successful export performers, demonstrate that industrial transformation involves a significant rise in manufacturing's share in GNP and a shift away from dependence on primary exports as a source of foreign exchange. In light of the above it is tempting to reach the preliminary conclusion that Sri Lanka should encourage nontraditional exports with an eye towards diversification. We cannot, however, for as noted Sri Lanka was doing just that over the second half of the time period considered and with some success (the average % of total export value accounted for by traditional exports was 91% for 1957-64; 83% for 1965-78;and only 73% for 1973-78; and manufacturing as a percentage of GNP grew from approximately 11% to 15% over the period). And, it was precisely in this later period of time that the correlation between export growth and economic growth became negative and increased in significance. The question then is, did the export sector not diversify quickly enough to compensate for the decline in traditional export markets or did the government encourage the promotion of the wrong exports?

To answer this question would require a very detailed analysis of the new export sector which is still quite small and for which little useful data exists. As such it must go unanswered at this time. In light of the problems Sri Lanka

experienced under their import-substitution regime and the disasterous state of their traditional export markets, it is likely that both parts of the question contain some truth.

Warnapala [35,1979,p.85] has observed that since 1978 the Sri Lankan government's economic strategy has guided the expansion of diplomatic relations with certain countries including South Korea and Singapore. And, that "some government spokesmen have expressed the need to imitate South Korea's economic development model." Based on what we have seen above two things would seem clear. First, it is highly unlikely that Sri Lanka will be able to imitate South Korea's economic development. Second, if exports are ever going to serve as an engine of growth in Sri Lanka, it will not be due to the traditional major exports.

V. CONCLUSION

In this paper we have taken issue with the prior research done on the relationship between export growth and economic development for treating LDCs as though they were homogeneous and/or concentrating on the specially predisposed. In an attempt to begin to fill this perceived void in the literature we have presented a case study of Sri Lanka, one of the world's poorest countries which has had a long history of being export sector oriented in its policies. The conclusion was reached that exports have not been an engine of growth for Sri Lanka and they may have inhibited it. This failure can be

explained, at least in part, by the failure of the Sri Lankan export sector to change in response to changes in world demand for the traditional major exports.

The results of this study should be of much interest to the economic planners of Sri Lanka. In addition, the study should serve as an important caveat to the policy planners of all those LDCs that do not appear to display all the characteristics necessary for trade to serve as a source of economic growth. Hopefully, it will serve as a reminder of the importance of examining their own unique case first, before adopting the policy prescriptions of the existing general studies and studies of specially predisposed countries.

FOOTNOTES

1. See for example Keesing [21,1967], Nurske [27,1970], Feder [12,1983], and Krueger, [23, 1983].

2. Some of these studies are Emery [11,1967], Kravis [22,1970], Chenery [7,1971], Balassa [2,1971], Westphal [36,1978], Early [10,1980-81], Tyler [33,1981], and Van de Klundert and Kolnaar [34,1982].

3. Streeten [32,1982] broadly criticizes the logic of the theory and challenges the usually cited examples of its success. Lewis [24,1980] observes that trade as an engine of growth of developing economies began to slow down after the mid-1970s. Karunaratne [19,1986] notes that the developed countries'attitudes towards protectionism has been changing. And, Cline concludes the generalization of the East Asian model of export-led development across all developing countries would result in untenable market penetration into the industrial countries.

4. Balassa [2,1978] suffers from both of these shortcomings and the studies by Early [10,1980-81], and Westphal [36,1978] on Korea are good examples of the second fault.

5. There are numerous books and articles available on the socio-economic and political history of Sri Lanka, particularly on the colonization period, for the interested reader. I have relied on Richards and Stoutjecdijk [31,1969] and Karunatilake [20,1971] for the pre-1970's period, and on Isenman [16,1980], [17,1981], and Richards [30,1981] for information pertaining to the 1970's.

6. The ratios were calculated by deflating the nominal export values by the Central Bank of Ceylon's Export Prices Index for the appropriate year and then dividing by the nominal value of GNP for that year deflated by the GNP Price Deflatior (1967=100). The data used here and throughout the paper were obtained from various issues of the Central Bank of Ceylon's Annual Report of the Monetary Board to the Minister of Finance, annual, 1950-,[4] Bulletin, monthly, 1950-,[5]; Review of the Economy, annual, 1975-,[6]; and Peebles [28, 1982].

7. Tea and rubber are produced mainly for export, with more than 90 percent of total output being exported in a typical year. Only in the case of coconuts is there any sizeable domestic consumption. Any significant abandoning or uprooting of trees or bushes is unlikely in the short run due to the high fixed costs of plantation crops and the long lead times.

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TABLE I

Year	Real Exports (f.o.b.) Rs.M.	Real GNP Rs.M.	Real X ÷Real GNP %
1957	1,402	5,718	24.52
1958	1,450	5,819	24.92
1959	1,438	5,935	24.23
1960	1,502	6,331	23.72
1961	1,547	6,468	23.92
1962	1,659	6,760	24.54
1963	1,588	6,950	22.85
1964	1,690	7,417	22.79
1965	1,725	7,606	22.68
1966	1,589	7,870	20.19
1967	1,690	8,265	20.45
1968	1,739	8,962	19.40
1969	1,638	9,367	17.49
1970	1,723	9,811	17.56
1971	1,664	9,834	16.92
1972	1,703	10,160	16.76
1973	1,910	10,541	18.12
1974	1,630	10,947	14.89
1975	1,976	11,247	17.57
1976	2,015	11,586	17.39
1977	1,738	12,100	14.36
1978	1,892	13,094	14.45

Source: see note 6