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INDUSTRIALISATION IN SRI LANKA: WHAT CAN WE LEARN FROM THE NICS?

By

J.P.C. Guimarães

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Industrialisation Series No.1

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April 1991

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INDUSTRIALISATION IN SRI LANKA: WHAT CAN WE LEARN FROM THE NICS?

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J.P.C.Guimarães

1. INTRODUCTION

The importance of industrialisation as a constituent element of the development strategies of LDCs can hardly be over-emphasised. Except perhaps for a handful of countries that are extraordinarily well endowed with natural resources (e.g. oil producing countries with small populations), industrialisation is generally seen as a necessary ingredient in the effort to eliminate poverty. Industrialisation has long been considered as a privileged instrument for creating extensive employment opportunities, absorbing excess labour leaving the rural sectors of the economy, accelerating the process of capital accumulation, modernising the economy and increasing living standards and the level of output per head of the population. In addition to this it is expected that, by diversifying the economy and thus decreasing its dependence on the export of a small number of primary commodities, industrialisation may make it less vulnerable to the negative consequences of short-term fluctuations and long-term deterioration in the terms of trade.

In addition to the theoretical arguments, the case for industrialisation is unquestionably strengthened in the minds of LDC planners and policy-makers by the close association between industrialisation and high levels of per capita income. No agriculture-based economy has ever achieved per capita income above US$500 for any significant period of time (Kahn, 1979: 118). In addition to this, the success stories of the so-called Newly Industrialising Countries or NICs, most notably Taiwan and South Korea, provide an important demonstration effect. Both these countries had, in 1960, approximately the same per capita income of US$150 as Sri Lanka (World Bank, 1987: 4); in 1983, however, Taiwan's per capita income (at current prices) had risen to

US$2,677 and that of South Korea to US$2,010, while the corresponding figure for Sri. Lanka was a modest US$330. As is well known, the remarkable growth of both countries was accompanied by -- and, it could be argued, was inseparable from -- the industrialisation of their economies.

Industrial policy in Sri Lanka has experienced a number of changes in orientation since its origin. These changes have culminated, in the recent past, in a reformulation of the strategy for industrial development. The latest and most important milestones in this process are the Industrial Policy Statement of 1987 and, most recently, the document entitled "A Strategy for Industrialisation in Sri Lanka", published by the Ministry of Industries in December 1989. In the latter document reference is made to the NIC experience, and the policy objective of emulating this experience is explicitly mentioned.

The present paper has three main objectives: first, to analyse, albeit briefly, some aspects of the industrialisation experiences of the NICs, in order to establish what can be learnt from them that may be of use to Sri Lanka; secondly, to discuss some of the most important aspects of the current industrialisation strategy in Sri Lanka, emphasising some main assumptions and policy objectives and discussing them in the light of the NIC experience and taking into account the existing constraints; and third, to initiate a discussion which will hopefully lead to the identification of priority areas for industrialisation-related research at Institute of Policy Studies (IPS). It must be stressed that it is not the intention of this paper to state or to imply that Sri Lanka should adopt the same policies as any of the NICs in order to industrialise successfully, but simply to determine what lessons can be drawn from their experience that may possibly be of use to Sri Lanka. This seems a useful and relevant objective, particularly in the light of the stated government intention of emulating NIC experience.

A recent IPS discussion paper has dealt at some length with the South Korean experience and some of its implications for industrial policy in Sri Lanka (Edwards, 1989). The focus of the present paper is somewhat more general, and the experience of Taiwan will be given greater emphasis here; certain of its characteristics (e.g. population, agricultural potential) and its path -- which could be described as

agriculture-led development -- seem to make its case at least interesting as that of Korea, and the lessons that can be drawn from it possibly even more useful.

2. THE EXPERIENCE IN THE NICs

2.1 THE NICs

The expression "Newly Industrialised Countries" or NICs is usually applied to Hong Kong, Singapore, Taiwan and the Republic of Korea. For obvious reasons, the experience of Hong Kong and Singapore is less relevant for Sri Lanka than that of the other two: they are special cases of city states whose small populations and virtual absence of an agricultural sector render their experience less illuminating and any lessons derived from it less applicable to the case of Sri Lanka. On the other hand, there is another NIC, of what we could call an earlier 'generation', whose industrialisation record not only has a lot in common with those of Taiwan and South Korea, but also, in some important ways, created conditions for their subsequent industrialisation. That earlier NIC is, of course, Japan, whose industrialisation process started much later than those of the Western powers and took place in a world context characterised by their economic dominance. I shall first point out a number of common characteristics of industrialisation in these three countries and then discuss in greater detail some specific aspects that are particularly useful in helping to understand the nature and characteristics of the processes at work.

2.2 COMMON CHARACTERISTICS OF NIC INDUSTRIALISATION

In all three cases, the economic context in which industrialisation took place was characterised by a well-developed agricultural sector, although there were important differences between the three countries. This prior development of agriculture played an important role in industrialisation, and I shall return to it later in this paper.

A second common characteristic of the industrialisation processes in the three countries is that they all started with a stage of import-substitution behind heavily protective tariff and non-tariff barriers. In the case of Japan, imperialism played an important role in industrialisation, by providing more or less captive colonial markets for

its expanding industries and cheap food which facilitated industrial capital accumulation; in addition to this, the Japanese war machine generated "a tremendous backward linkage effect with the armament and engineering industries. Indeed, the state-owned arsenals were the seedbed of the entire Japanese engineering sector" (Saith, 1987: 248-9). At the same time, "almost from its initial steps towards industrialisation, [Japan] began to introduce a complex of incentives for both import substitution and exports. Tariffs were supported by non-tariff barriers which largely captured the domestic market for domestic producers. Subsidies, mainly through privileged access to credit facilities, also supported domestic production" (Hirono, 1988: 242).

Taiwan and South Korea initiated their industrial growth with the usual pattern of primary import substitution, characterised by the diversion of part of the export earnings of the traditional sector from the import of nondurable consumer goods to the import of producer goods. This shift gave rise to new import substituting industries which, developing in the protective shadow of tariff and non-tariff barriers, gradually replaced imported nondurable consumer goods with domestically produced goods. The initial import substitution stage of industrialisation performs a very important function by turning traditional populations into factory workers and giving the new industrial entrepreneurs an opportunity to acquire management skills and the capacity to use modern science and technology to improve productive processes. This key role justifies the protection accorded to it by governments with the usual combination of tariffs, import licensing, overvalued exchange rates, artificially low interest rates, etc. However, this protection often gives rise to windfall profits unrelated to efficiency and competitiveness, and to uneconomic resource allocation decisions -- for instance, by leading to inappropriately high capital intensities. Among the most affected sectors are agriculture, which suffers primarily by reason of the deterioration of its terms of trade with industry and typically rural industry, where certain units disappear because their markets are invaded by the modern sector while others thrive and modernise due to the protection of the domestic market. In this respect, Korea and Taiwan seem to have followed a more moderate course than most other import-substituting developing countries, in that they had relatively lower and more uniform levels of protection for their industries, and paid greater attention to agriculture. (Ranis, 1985: 254).

Industrialisation by primary import substitution comes to an end basically when domestic industry has replaced all or most of the imported manufactured nondurable consumer goods. Industrial growth then tends to slow down to the rate of growth of aggregate income. At this point countries may either move into secondary import substitution -- by going into the production of capital goods and consumer durables -- or move toward the export of the same consumer nondurables that they are producing for the domestic market. Ranis (1985: 255) calls this strategy "primary export substitution', because the basis for the comparative advantage in trade now shifts gradually from land to unskilled labour", as labour-intensive exports gradually replace the export of agricultural products. At the risk of simplifying, the first path could be associated with the Latin-American industrialisation model. The East Asian three, as is well known, opted for the second.

Import protection raises the prices both of imported goods and of the domestically produced goods that compete with them. As a consequence of this, producers of goods for export find themselves faced with a fall in the relative price of their output and experience an incentive to move into the production of import substitutes. The move into primary export substitution can be achieved either by removing the barriers that protect import substituting industry, or by adding a combination of export subsidies and currency management to the existing import protection (which will have a similar effect to that of adopting a system of multiple exchange rates). In both cases the result is economic neutrality between production of import substitutes and production for export. There are, however, two important differences between them. First, the two approaches have different impacts from the point of view of the overall incentive to industrialise: in the first case, the complete removal of protective barriers will necessitate a more drastic devaluation of the currency if domestic industry is to retain its competitiveness -- and this will of course have other consequences, particularly from the point of view of living standards. Secondly, the neutrality is automatic in the first case but not in the second: if the government gets the mixture wrong, neutrality will not be achieved, and with very complex import protection schemes it is easier for that to happen. For this reason neo-classical economists, who tend to trust markets rather than the capacity of governments, normally favour removing barriers rather than adding subsidies and, even when a degree of protection is retained, recommend that the move towards trade neutrality be accompanied by a

general simplification of the protection scheme, as well as a decrease in the general level of protection.

In the case of the NICs, however, the move towards primary export substitution took the form of maintaining selective protection for certain import competing sectors and adding to it a combination of export incentives and currency management which resulted in broad neutrality. Their governments have not allowed imports to be directly determined by the interaction of domestic demand and international prices; both through tariffs and through quantitative controls, they have effectively prevented the domestic market for tradable goods from being directly integrated into the international market. Edwards (1989) presents clear evidence that in South Korea export promotion was not accompanied by a removal of protection on import substitutes. The quotation from Hirono, given above, indicates that Japan's policy was similar -- and in fact the maintenance of non-tariff barriers by Japan well into the eighties has been a constant source of complaints for Western exporters and has even led to occasional retaliation in kind. Taiwan adopted a similar policy of introducing new incentives for exporters while maintaining the protection of industrial production for the domestic market. In 1958-59 a policy of devaluation was adopted, together with the removal of quota restrictions on all types of permissible imports; however, the import of luxury goods was still not allowed and in general the existing high tariffs on imports were maintained. (Tsiang, 1985: 37). An OECD study of industrialisation in seven developing countries published in 1970 found that while "the average rates of protection for all manufacturing industry ... in Taiwan were moderate ... these moderate levels were due to zero or negative protection for exporting, while protection given to production for sale in the home market was much higher ... " (Little, Scitovski and Scott, 1970, quoted in Amsden, 1979). Using data from 1966 (i.e., after import controls had been liberalised), Hsing (1971: 144) concluded that home market consumer goods in Taiwan enjoyed an effective protection rate of 126 per cent. In other words, production for export faced almost free trade conditions, but production for the home market benefited from significant protection. The separation between the domestic and the international market also means that producers who sell in both markets can use their domestic profits to subsidise export sales, which of course improves their international competitiveness. To this day Taiwan maintains a system of minutely differentiated

tariffs, as well as non-tariff controls, not to save scarce foreign exchange but to build up technological and supply capacity within the country. (Wade, 1988: 139).

Primary export substitution allows countries to exploit the comparative advantage they derive from an abundant supply of unskilled labour. In the industrialisation process that followed the export promotion drive in the three NICs, surplus labour was gradually absorbed from agriculture into industry, in line with Lewis's famous model (Lewis, 1954). As each country exhausted its surplus of unskilled labour (in the middle of the century for Japan, in the early 1970s for Taiwan and South Korea), wages started to rise and the need for a further transition became apparent: from the export of labour intensive products to the production, for the domestic market and almost simultaneously for export, of capital goods, consumer durables and processed raw materials, or what Ranis (1985) calls "secondary import substitution and export orientation". But this need not concern us for the present.

Another well-known characteristic of the industrialisation process of the NICs is what some people would describe as 'industrial peace'. In each case, a strong state, an efficient police and weak trade unions played an important role, as did no doubt the existence of surplus labour, and the consequent weakening of the bargaining position of the workers. However, it must also be pointed out that in South Korea and even more in Taiwan, the land reforms and agricultural development that preceded industrialisation increased the opportunity cost of peasant labour (Ho, 1978: 167 - 170), leading to higher industrial real wages than would have been needed if these developments had not taken place. (Griffin, 1989: 125).

Finally, it must be kept in mind that the three East Asian NICs industrialised under very specific, and from some points of view particularly favourable, conditions: on the one hand, their agricultural sectors had undergone a long period of growth which gave them some significant advantages; on the other, international economic conditions were also favourable: Japan reached the end of the labour absorption process and made the shift from primary to secondary export substitution during a long period of steady and growing international demand, and Korea's and Taiwan's export promotion drives came at about the same time, so that they could move into the void that Japan was leaving and supply the international market with cheap-labour

manufactures. Needless to say, the present conditions for the industrialisation of developing countries are very different from those.

2.3 THE ROLE OF STATE INTERVENTION

In addition to its law-and-order function, the state in the three countries played a crucial role in directing the process of industrialisation. This fact needs to be stressed because it directly contradicts the `lesson' that certain neo-classical economists insist in drawing from the experience of the NICs. According to these economists, the secret of a successful industrialisation is an economic environment in which price signals are allowed to guide investment decisions, and this is best achieved through a free or almost free trade regime and a small public sector, which does not interfere in the economy. As we have already seen, the trade policies adopted by the NICs combined export promotion with import controls and can certainly not be described as 'free trade', and even less as "laissez-faire"; in each case, state intervention played a decisive and very visible role in fostering and guiding industrialisation.

Wade (1988) provides a devastating criticism of the neo-classical thesis mentioned above and abundant evidence of guidance of industrialisation by the government in the three East Asian countries. In addition to trade controls, he identifies as a key instrument of selective industrial promotion the credit-based (as opposed to capital-market based) financial systems of the three countries, over which the governments exercise a significant degree of control, either directly as in Taiwan (where most banks are partially or wholly government-owned), or indirectly through the control of the central bank over the use of the loans it makes to commercial banks, as in Japan. Korea's banks also used to be government-owned and are still subject to considerable government influence.

Wade (1988: 133-5) enumerates the following advantages of credit-based financing of industrial development over financing by the capital market: (i) it "permits faster investment in developing country conditions than would be possible if investment depended on the growth of the firms' own profits or on the inevitably slow development of securities markets...also the government is able to restrict the use of investible

resources for mergers, speculation, paper entrepreneurship and consumer borrowing; savings have a better chance of being translated into productive investment"; (ii) "a credit-based system encourages more rapid sectorial mobility, and permits the government to guide that mobility"; (iii) "the credit-based system helps to avoid the bias towards short-term company decision-making inherent in a stock market system"; and (iv) "control over the financial system, and hence over highly leveraged firms, has been used in all three countries to build up the social coalitions needed to support the government's objectives -- thus helping implementation of the industrial strategy". He then goes on to identify a number of requirements that government action must satisfy if these advantages are to be realised, and to analyse the concrete ways in which they are implemented in the East Asian three. These requirements are: the government must help to socialise risk (especially in the case of highly correlated risks, to which most firms in major sectors are exposed); it -- or the banks -- must become intimate with company management; it must develop an institutional capability to discriminate between responsible and irresponsible borrowing, and penalise the latter; and it must create a central agency capable of supplementing market signals with its own signals as to which sectors will be most profitable. Finally, its control over the banking system can be translated into control over industrial development only as long as the government maintains a separation between the domestic and the international economy with respect to financial flows, so as to be able to control these flows in and out of the national economy.

In addition to these, the governments of the three countries use a variety of other instruments to guide industrial development. Without wishing to itemise them all we could mention:

a) Controls over direct foreign investment: the three East Asian NICs control direct foreign investment both in terms of overall size and, more importantly, in terms of access to the domestic market. National enterprises are of course easier to control by the mechanisms mentioned above; thus by restricting the access of foreign firms to the domestic market, governments retain a greater capacity to promote the growth and restructuring of domestic production. (Wade, 1988: 144).

b) Public enterprises: South Korea and even more, Taiwan, have large public enterprise sectors. In Taiwan, although by the early 1970s the share of the public sector in manufacturing had fallen to less than 20 per cent, the state sector remained dominant in such fields as heavy machinery, steel, aluminium, shipbuilding, petroleum, synthetics and fertilisers. The government has invested in fields where private entrepreneurs were reluctant to invest due to high risks or expectations of low profitability and, in some new industries (such as plate glass), has built factories which were transferred to the private sector once they became profitable. (Amsden, 1979).

c) Government consultation with and persuasion of company management, especially in Japan and the Republic of Korea, where this practice is made easier by the existence of large scale industrial firms and trading companies supported and promoted by the authorities.

The examples could be multiplied, but the conclusion seems clear: in each of the three East Asian NICs the state played a critical role in providing guidance and direction to the industrialisation process. State interventions have tended to couple protection with competition, to be selective and to have a high degree of consistency and therefore a cumulative impact. The role of the state has been especially important in facilitating the transition from primary export substitution to secondary import and export substitution, which requires capital deepening, technological progress and productivity growth -- none of which is guaranteed or even likely to happen purely as a result of free trade policies. In fact, the development of some of the industries in which Japan and Korea became world leaders (car manufacturing, shipbuilding) cannot be explained on the basis of comparative advantage at all, but only as the result of selective, consistent and sustained state intervention (Harris, 1986; Wade, 1988). If one were to look for a label for the economic policy of these three governments, "mercantilist" might indeed be closer to the truth than "laissez faire"...

A great deal has been written about the political conditions that made the East Asian industrialisation success stories possible (e.g. Haggard, 1988, White and Wade, 1988). I shall not go into these analyses here. It seems important, however, at least to mention some of those conditions which appear to have played the most crucial role. These are (i) a strong state, with a considerable degree of autonomy; (ii) the capability

of the state to override sectorial and class interests as well as political factions; (iii) a weak left and a weak labour movement; (iv) a centralised decision-making structure and (iv) a high-powered and effective bureaucracy, congregating some of the best economic and managerial talent in each country. These conditions arose as a consequence of the particular paths followed in the history of the three countries. It may not be feasible to reproduce them in other developing countries, with different historical paths and political specificities.

2.4 THE ROLE OF AGRICULTURE

As has already been mentioned, the industrialisation of the three NICs took place against a background of long and sustained agricultural development. In Japan, the agricultural sector had experienced a long period of steady development, the roots of which go back to the process of commercialisation of agriculture initiated in the Tokugawa period. There was also a significant number of rural industries, and rural infrastructure was well developed.

The agricultural sectors of Korea and even more, of Taiwan, were also well developed at the onset of industrialisation; in both cases, as part of their imperial strategy, the Japanese -- whose colonies the two countries were until World War II -had adopted policies aimed at increasing food production.

During the colonial period the Taiwanese agricultural sector produced the domestic food supply as well as traditional exports. Korea had some non-agricultural exports as well as some food imports, a reflection of its less favourable natural aptitude for agriculture. The record of Taiwan in agricultural development is particularly interesting for the lessons that it has for other developing countries; for this reason it will be dealt with here in somewhat greater detail.

During the years of Japanese domination (1895-1945), and excluding the war years, the income per capita of the agricultural sector in Taiwan almost doubled, in spite of the fact that the population grew by 43 per cent. This was a consequence of a series of policy measures by the Japanese administration that included: (i) a land

reform which, although it kept the existing (and oppressive) landlord-tenant relations more or less unchanged, clarified property rights and allowed new farming practices to be assimilated; (ii) a flat tax on land, rather than a proportional tax on output, designed to stimulate production; (iii) the introduction of new technological advances (new varieties, irrigation, fertilisers and other inputs) that foreshadowed the Green Revolution; (iv) the use of farmers' organisations and even the police to induce farmers to adopt modern techniques. (Amsden, 1979).

The Japanese also paid considerable attention to infrastructural and organisational investments in the rural sector. These included transport systems, electrification, education, agricultural science and technology, and the development of farmers' organisations. The colonial development policies were combined with oppression and exploitation, as large amounts of food were exported to Japan; but the productive and organisational infrastructure, as well as the familiarity with scientific agriculture, survived the war and was used to advantage by the Chinese Nationalists in the continuing development of agriculture and in industrialisation.

From the end of the war until the late sixties, agriculture grew very fast, thanks first to the introduction of multiple-cropping and increased use of fertiliser and, after 1960, to the introduction of higher-value crops and other inputs and to higher capital intensity (tractors, livestock). Yields per hectare, per worker and per working day increased significantly throughout this period (see Table 1).

The state, which retained close control over the activities of the farmers (Wang and Apthorpe, 1974), stimulated the growth of agricultural production through the concession of credit to the farmers (in which it replaced the landlords) and the stabilisation of prices. At the same time, it siphoned real net surplus out of agriculture. This was done through the manipulation of the barter price of fertiliser for rice (the production and distribution of which was a state monopoly), land taxes, compulsory rice purchases at government-determined prices, etc. All amounted to hidden rice taxes, and all were collected in kind. Through monopsonistic buying arrangements, the state also imposed unfavourable terms of trade on the farmers. This does not mean, however, that Taiwanese peasants were impoverished: on the contrary, welfare indices

in the countryside (health, education, sanitation, overall consumption, etc.) steadily ncreased throughout this period. (Amsden, 1979: 156-9).

As could be expected, this long period of sustained growth of agriculture had a number of positive consequences for industrialisation. First, it expanded the domestic market for certain products -- chemicals, tools -- and for consumption goods in general (and, as we saw, the role of the domestic market remained important even after the end of the import substitution stage, because it was used to subsidise exports). Secondly, the export of agricultural products -- initially mainly rice and sugar -- helped ease the balance of payments situation and finance the imports necessary for industrial growth. Thirdly, it provided resources for industrial investment, both directly to the government in the form of the various visible or hidden taxes, and through the production of cheap food for industrial workers and the urban sector.

2.5 RURAL INDUSTRIALISATION

Another way in which agricultural development supported industrialisation in Taiwan was through rural industrialisation. Rural industrialisation has three important and well-known characteristics: (i) it allows firms to pay lower wages to their workers than they would pay workers, (ii) it saves urban development costs -- mainly in housing and infrastructure -- that would have to be incurred if the workers had to emigrate to urban areas, and (iii) it has "a clear egalitarian influence on the distribution of agricultural incomes, since the incidence of non-farm and non-agricultural income is far greater in the smaller land-owning households than in the larger ones". (Saith, 1987: 277). Amsden (1979: 159) indicates that in Taiwan "most of the gains in farm household income have come from non-farm sources. The contribution of off-farm work to farm household income rose from 29 percent in 1966 to 66 percent in 1972." The share of full-time farm families, which was 40 per cent in 1955, only fell to 28 per cent in 1970 (Amsden, loc.cit.), although the proportion of full time farm workers fell more slowly, indicating that rural off-farm work is widely spread among rural households.

Saith (1987: 277-8) enumerates the following factors as explanations for the superiority of Taiwan (over South Korea) from the point of view of rural industrialisation:

a) The much greater level of development of rural infrastructure (roads, rural electrification) of Taiwan: "these differences meant that small-scale industry could move to rural areas without disadvantage; and that instead of outright migration to the big cities, there was a higher incidence of off-farm part-time work in rural industrial establishments based on community. One resultant feature is that a high 40.5 per cent of full-time off-farm rural workers are women. They are accounted mainly by the home handicrafts sector, but increasingly since the 1960s by the strategy of the fastest growing industries (textiles, garments, electronics) to locate their plants near rural areas so as to exploit the female reserve labour force. They can do this primarily due to advanced infrastructural facilities".

b) The greater agricultural diversification and agro-industrial development of Taiwan, which was a consequence of Japanese colonial policy and of Taiwan's natural advantages: "Taiwan was specialised in agro-industries which ...: were spread out over the rural sector. When Japanese demand was lost in the post-war period, Taiwan-China managed to divert its production into the export sector. This sector has powerful rural linkages and its spread and multiplier effects ... strengthened conditions in favour of rural dispersal of subsequent industrialisation".

c) Greater autonomy of decision making at the local level and labour-releasing farm mechanisation in Taiwan, which increased the ability of peasants to take advantage of new economic opportunities arising in the non-farm sector.

And he remarks (pp. 279-80):

" within broadly similar policies and strategies of development, the experiences with regard to rural industrialisation reveal some significant differences, which are explicable primarily in terms of historical and structural factors providing the initial conditions of the growth process. However, the differences are also, to some extent, attributable to the strategic differences in the priorities attached to different sectors in the growth process, and the relative weakness of the Korean case with regard to istributional performance derives partly from these as well."

2.6 TAIWANESE INDUSTRIALISATION AND THE NEO-CLASSICAL MODEL

In conclusion, the picture that emerges from our brief analysis of the industrialisation of Taiwan is very different from the neo-classical one of export-oriented industrialisation based on the radical abolition of barriers to international trade and the liberalisation of the internal market. The main aspects by which it differs from that construct are:

a) The existence of a long preliminary stage of agricultural growth and rural development based on land reform, the development of peasant agriculture and investment in human and physical infrastructure, which increased land and labour productivity in agriculture, expanded domestic demand and created investible surplus. In this, Taiwan followed a shortened but still recognisable version of the path of the developed countries in the West and of Japan, in the sense that the industrialisation of all these countries was preceded by what Lewis (1978) calls an agricultural revolution.

b) The existence of an import-substitution stage of industrialisation behind protective tariff and non- tariff barriers, before the export-oriented industrialisation.

c) The maintenance, well past the stage of primary export substitution, of trade controls designed to keep the domestic market separate from the international market and to protect domestic production.

d) A strong and sustained process of rural industrialisation which employed farm labour in off-farm activities and made farming a part-time activity for most farm households.

e) Always, and throughout all these processes, the unrelenting presence, interference and guidance of the state, using all the instruments at its disposal .

All these differences resulted in a development process in the course of which, contrary to what one would have expected -- and contrary to what happened in most other countries, including South Korea -- the distribution of income and wealth did not experience a significant deterioration as a consequence of industrialisation. The

Taiwanese industrialisation process thus has important lessons, even if it may be difficult or even impossible for other developing countries, with different characteristics and a different history, to imitate it.

3. INDUSTRIAL DEVELOPMENT AND INDUSTRIAL STRATEGY IN SRI LANKA

If the term is interpreted in a broad sense, it may be said that Sri Lanka has had an industrial sector for a long time: "in 1939, the total number of tea, rubber and coconut processing factories presumably exceeded 2,000" (Karunatilake, 1987: 93). However, until the shortages associated with World War II forced the government to establish a number of small-scale industries to serve the needs of the local market, Sri Lanka had relied on imports for most of the manufactured goods it consumed. The initial stages of an explicit industrial policy can thus be said to date from the war period. From that time until the present, industrial policy in Sri Lanka has passed through a number of different phases, closely associated with the political orientation of and the macro-economic strategies pursued by the various governments, in a changing international climate. Table 2 gives a summary of the main changes in the orientation of industrial policy, together with the rates of growth of GDP and of value added in manufacturing. Broadly, the policy has alternated between periods of state intervention and state controls and periods of trade liberalisation and greater emphasis on market mechanisms.

Before analysing the current industrialisation strategy, and in order to establish a context for that analysis, it seems useful to summarise a few of the most salient characteristics of the industrial sector in Sri Lanka. Briefly, these are:

a) the recent growth record of manufacturing;
b) the sectorial composition of factory industry; and
c) the impact of industry on the structure of Sri Lankan exports.

Table 3 gives an idea of the changes, from 1970 to 1988, in the contributions to value added of the three main sub-sectors into which the industrial sector may be

divided (namely, factory industry, tree-crop processing and other industry, which consists predominantly of small-scale rural and informal sector industry). The growth in the relative importance of the factory industry sub-sector and the progressive decline of the tree-crop processing sub-sector are the most striking aspects of this evolution. Table 4 gives some of the same information, but in terms of constant (1970) factor prices. From this table it is possible to calculate the growth rates of the three sub-sectors over the period. The growth of tree-crop processing was negligible, while both the factory sector and small-scale industry experienced average growth rates in excess of 5 per cent per year.

Turning now to the structure of the factory sector, Table 5 gives the contribution of the various categories of industry to value added in the factory sector, in percentage terms. The two most salient aspects of this table are the predominance, throughout the period, of the food, beverages and tobacco industry and the increase in relative importance of the textile, wearing-apparel and leather products sub-sector, which in 1988 accounted for 33.6 per cent of total output and 22.8 per cent of total value added in the factory sector (the difference between these two figures is due to the low value added ratio in this sub-sector: only 26 per cent, against almost 39 per cent for the factory sector as a whole).

The growth in this sector was substantially caused by the export-promotion policies of recent years. From 1978 to 1988 the share of textile and garments in total exports rose from 4 to 30 per cent (see Table 6). However, the low value added ratio of this sector and the high proportion of imported inputs used by it imply that the net foreign exchange earnings from such exports are considerably lower. Primarily as a consequence of the growth in the exports of textiles and garments, industrial exports rose from 14 per cent of total exports in 1978 to 48 per cent in 1988, overtaking agricultural exports for the first time in 1986 (Central Bank of Sri Lanka, 1988: 133). As Table 6 indicates, the share of tea, rubber, and coconut products in total exports declined, in the same period, from 74 per cent to 37 per cent.

In this economic context, the most recent government policy statement concerning industrialisation is the Ministry of Industries' "Strategy for Industrialisation in Sri Lanka", of December 1989. This is a wide-ranging document, setting out policy

intentions – some of them in very general terms -- in a large number of related areas. It is a well-known document, and there is no point in quoting from it at length. For this reason. I shall focus here only on a small number of key points.

In its essential approach, the reasoning underlying the industrialisation strategy could, at the risk of some over-simplification, be summed up in the following way: "Sri Lanka needs to grow at a faster rate, to create large numbers of new jobs, to diversify its economy and to strengthen the balance of payments. For that, given the relatively poor resource endowment of the country, it must industrialise; since the domestic market is small, this industrialisation must be export-oriented. A number of countries have industrialised successfully on the basis of free and outward-looking economic policies, while Sri Lanka stagnated under inward-looking policies; to promote industrialisation Sri Lanka must transform the domestic market oriented-industry to an export-oriented one. This is to be done by granting incentives for exports and investment, mobilising savings, establishing neutrality between import substitution and export-orientation and between state-owned and private industry, encouraging foreign investment, strengthening and deregulating the capital market, removing administrative barriers to economic activity, fostering linkages between large and small industries and improving training and research."

4. SOME COMMENTS ON THE INDUSTRIALISATION STRATEGY

Given the significant ways in which it diverges from the neo-classical prescriptions, the Taiwanese success story provides us with a natural starting point to question some of the more fundamental characteristics and assumptions of the industrialisation strategy. This does not imply that Sri Lanka should aim at copying the Taiwanese experience, but simply that the characteristics of that experience may allow us to ask some relevant questions about the path that the strategy maps out for Sri Lanka.

Before going any further there is, however, a necessary condition of successful industrialisation that, although it lies outside the main area of concem of this paper, must be mentioned here because of its fundamental nature: sound macro-economic

management. Good and consistent economic policies provide the certainty, credibility and confidence without which industrialisation cannot be successful. Only within a context characterised by correct and consistent macro-economic policies is it even worth discussing matters of industrialisation strategy.

The comments made below are directed at three main aspects of the industrialisation strategy: (i) the instruments that the government is likely to have at its disposal to influence the industrialisation process (and thus the degree of control it can exercise over it), (ii) the likelihood that the strategy will contribute significantly to the objective of employment creation, and (iii) the actual and potential role of agriculture in the strategy for the development and industrialisation of Sri Lanka. Although less closely related with the strategy as it stands, this is an important aspect, and it seems fruitful to reflect briefly on it.

4.1 GOVERNMENT CONTROL OF THE INDUSTRIALISATION PROCESS

From the point of view of the degree of control retained by the state over the process of industrialisation, this strategy is very different from that which was adopted by the NICs, as we have seen above. This becomes clear if we try to classify each of the various policy measures envisaged in the strategy into one of three categories:

a) control-enhancing measures: those which are likely to strengthen the state's capacity to influence the decisions involved in industrialisation;

b) market-enhancing measures: those which are likely to improve the ways in which markets function (mainly by streamlining and deregulating them); and

c) 'neutral' measures (i.e. all those which do not belong clearly in one of the two categories above).

This is of course not a perfect classification: there are areas of overlap as well as of indefiniteness and ambiguity. However, most of the measures envisaged fall into one of the two main categories. By and large, market-enhancing measures tend to

decrease the state's capacity to control the industrialisation process, while on the other hand control-enhancing measures have at least the potential of distorting, disturbing or overriding market signals.

If we analyse the strategy from this point of view, the conclusion seems inescapable that market-enhancing measures significantly outnumber and outweigh control-enhancing ones. To mention only the main examples, the strategy favours: (i) opening a large part of the economy ("sectors other than those which are recognised as being developed") to direct foreign investment; (ii) "promoting a healthy and vibrant capital market"; (iii) reducing and simplifying tariffs; (iv) achieving neutrality between import-substituting and export-oriented industries; (v) simplifying labour legislation and "correcting" it to remove rigidities; (vi) commercialising most public companies and running even those which are retained in state hands on a commercial basis. On the question of whether the domestic capital market will be integrated into the international market, the strategy is not as clear, but there are some indications that foreign capital will also be welcome in the form of long-term loans.

Of course the strategy also contains a number of control-enhancing measures, like incentives for industrial investment and exports. Several of these are, however, formulated in rather general terms, in the sense that they do not distinguish between different industries and it will be difficult to use them in a selective and cumulative way to impart direction to the industrial development process.

This is perhaps best illustrated by the approach taken in relation to risky investments. The strategy envisages the creation of venture capital companies to undertake such investments, and various types of institutional investors are expected to participate. No consideration is, however, given to the idea of socialising risk -- which could be done for instance by creating a venture capital fund underwritten, wholly or in a substantial part, by the government. Instead, the usual fiscal incentives are envisaged: investment relief, tax waivers on capital gains, tax holidays, fiscal incentives for marketing and promotion, etc. These incentives will no doubt reward success and thus make certain investments more attractive, but they do comparatively little to reduce the risks associated with failure and are, for that reason, unlikely to lead

the new companies into adopting the sort of bold approach to risk that would be desirable.

By adopting the industrial strategy, the government would thus seem to be surrendering most of the capacity to provide direction to the industrialisation process through selective intervention, now or in the future. Clearly, market mechanisms and signals are expected to play the main role in guiding that process. In the short-term, and assuming that normality is fully re-established in Sri Lanka, this "laissez-faire" strategy will probably have some of the desired impact, especially if combined with an appropriate exchange rate policy: a further surge of industrial growth as capital, domestic and foreign, responds to the improved conditions and flows into industry to take advantage of cheap unskilled labour, unused quotas and a favourable environment.

Beyond the short-term, however, the crucial question is whether the same market mechanisms can, by themselves -- or, with the rather weak array of incentives the strategy provides -- bring about further industrial development on a sustainable basis. The policies of improving training and manpower development, supporting the acquisition and improvement of technology, and improving infrastructure, may not be enough to propel Sri Lanka into a sustained process of industrial development, characterised by industrial diversification, increased value added ratios, an increased density of inter-industrial linkages, greater incorporation of local raw materials and local skills, and the development of comparative advantages that are not purely a consequence of cheap-wage labour.

It must be kept in mind that there will always be other countries with lower labour costs than those of Sri Lanka, willing to welcome footloose multinational capital if it decided to leave Sri Lanka in its search for ever cheaper labour. In the absence of an active, deliberate and selective strategy of encouraging the development of technology- and skill-based comparative advantages, industrial and technological stagnation may be difficult to avoid in the long run. For these reasons, the wisdom of putting all of one's eggs in the neo-classical basket by giving up at the outset most of the instruments that might be used by the government in directing industrialisation, may be questioned. As the evidence quoted above abundantly proves, this was not what the NICs did. This

question acquires special relevance because, politically, it is much easier to retain a number of controls and discard them gradually, one at a time, than to remove them all at once and then try to re-impose some of them later.

4.2 EMPLOYMENT CREATION

A second question that seems to require some attention concerns the likely impact of the industrial strategy upon the creation of employment. Current unemployment is estimated -- some say conservatively -- at around 2 million and the labour force is expanding by more than 150 thousand per annum. Combining these figures, the figure of 4 million for the number of jobs that need to be created until the end of the century (mentioned in the foreword to the industrialisation strategy document) does not seem excessive. The statement that, if those jobs are not created, the cohesion of the social fabric and the future of the country may be in jeopardy, does not seem an exaggeration either, especially taking into account the violent convulsions the country has been through in the recent past. Job-creation must thus be treated as a major, if not the major, objective of any development strategy.

Clearly, jobs will not be created only in industry: agriculture, and especially the service sector, will also have a role to play in job-creation. But if the objective of creating 4 million jobs by the year 2000 is to be reached, industry will still have to account for a large number of new jobs. Statistical information concerning present employment in industry is not readily available but, if we start with the estimate of 600,000 for total employment in manufacturing in 1982 (mentioned in Edwards, 1989), and assume that labour productivity in manufacturing remained constant between 1982 and 1988, using value added at constant prices for those two years we get a quick-and-dirty estimate -- likely to be an over-estimate -- of just under 870,000 in 1988. Given the recent troubles, industrial employment is unlikely to have grown by much since 1988.

If we then start with 870,000 for 1990, the rate of growth of industrial employment necessary to create 1 million new jobs by 2000 would be 8 per cent per annum. For 1.5 million new jobs, the annual rate would have to be 10.5 per cent. These figures are of course only back-of-the-envelope calculations, but they give an idea of

the magnitude of the challenge posed by the objective of employment-creation. Rates of growth of manufacturing of 8 to 10 per cent are not impossibly high, but they exceed the rates achieved in Sri Lanka for most years. Furthermore, for employment to grow at these rates, value added would probably have to grow significantly faster.

There are certain well-known ways to maximise employment-creation consequent on industrial investment. They include providing incentives for small-scale industry (where the capital:labour ratio tends to be lower than for large-scale industry and therefore each rupee invested goes farther in creating new jobs) and trying to retain within the national borders as large as possible a proportion of employment multiplier effects, for both the inter-industrial multiplier (by increasing the proportion of domestic value added in exports and import substitutes) and the Keynesian multiplier (by protecting domestic production of wage goods). The two types of measures of course overlap, since many small-scale industries will normally produce either wage goods or intermediate products for larger- scale, domestic market- or export-oriented industries.

Besides general incentives, the industrial strategy mentions four main instruments specifically in connection with the development of small industry: (i) the establishment of linkages between large and small industries in order to promote exports and small industrial activities; (ii) the organisation of export trading houses that will assist small industrialists to develop and produce exportable products, which will then be exported under the trading house's brand name; (iii) the provision of fiscal incentives for the technical upgrading of small and medium companies; and (iv) the development of the capital market in order to facilitate the channelling of savings to industrial investment.

Although some of these ideas have considerable merit, two key aspects seem to have been left out of this list: first, small industries, especially in rural areas, play an important role in supplying local markets with a variety of goods. That role is, and is likely to remain, more important than their participation in export activities, and this fact should be explicitly recognised and incorporated into supportive policies. Second, small and rural industries face special difficulties in getting access both to capital and to credit on the same terms as larger industries, and this problem is unlikely to be solved by

improving the capital market, especially since (a) the capital market is likely to continue to discriminate against small industries, and (b) many of these industries are also too small or too informal to be able to participate in that market. This would seem to justify a degree of positive discrimination -- by making both long- and short-term credit easily accessible, and on favourable terms, to small industries -- in order to counter the more common practice of discriminating against them.

This is obviously not the place to present a thorough discussion of the measures that could be adopted to provide support to small and rural industries or of the reasons why such support makes good sense (for interesting discussions on these aspects see Bandaranaike and Fernando, 1989, Leelasena, 1989, Osmani, 1987). In spite of the quality of some of the existing studies, it is striking how little reliable and up-to-date information, statistical or other, is available on this sector. This would seem to be a high priority area both for research and for primary data collection.

As to the question of increasing the employment multiplier effects, the liberalisation of imports envisaged in the strategy is unfortunately likely to have the opposite effect of facilitating the leakage of such effects beyond the national borders. This may of course be to some extent countered by attempts to involve small industries as sub-contractors of larger units. Here again the experience of Taiwan may be of some use: for a number of products -- particularly components and intermediate industrial goods -- an import license is only granted after the would-be importer gives a justification, based on arguments of price, quality, or delivery, of why he prefers imports to domestically produced goods. This system of import control, which works through what Wade (1988: 140) calls a `referral mechanism', serves the purpose of increasing the local content of manufactures and developing local industrial capacity. It has the advantages (especially important for the Taiwanese) of operating discreetly and of being largely hidden from sight, thus making retaliation difficult. On the other hand, such a system can only work at all -- and a fortiori can only be beneficial -- if implemented by a bureaucracy that is competent, fast-reacting and relatively difficult to corrupt, i.e. under conditions that are not always found in developing countries.

4.3 THE ROLE OF AGRICULTURE

As has already been mentioned above, agriculture played a crucial role in the industrialisation of Taiwan. A first question we could raise in connection with the role of agriculture in the industrialisation of Sri Lanka relates to the argument about the smallness of the domestic market and the negligible role that has been assigned to it. Sri Lanka's population is now around 17 million and is expected to stabilise, sometime in the 21st century, near the 24 million mark. This is not large by the standards of China or India, but neither is it so small that we can dismiss offhand the role of the domestic market, especially if industrialisation takes place after, or concurrently with, a process of widespread agricultural development that substantially raises rural incomes. In this respect it might also be worth mentioning that Sri Lanka has considerably more cultivable land than Taiwan. In fact the area of cultivated land in Sri Lanka, at about 30.3 thousand sq. km, is more than twice the total land area of Taiwan.

It might also be worth going back for a moment to first principles and ask again whether industrialisation should really be the first priority, especially given the objectives of employment-creation and the fighting of poverty. One obvious alternative would be an agriculture-led development strategy. Such a strategy would be likely to have a much greater impact upon poverty and unemployment than a strategy of export-oriented industrialisation (Adelman, 1990). This is not the place to present such an agriculture-led development strategy in all its details, but some of its main elements could be mentioned briefly.

As in Taiwan, the key to an agriculture-led development strategy would be agricultural growth stimulated primarily not by higher prices -- which reduce the real incomes of the poorest and slow down growth in other sectors, particularly industry -- but by cost-cutting technological innovations for agricultural production, both in food production and in cash crops. This would increase both land and labour productivity, and expand agricultural employment. The technological innovations are well known: improved varieties, irrigation and increased use of fertilisers and complementary inputs. Although Sri Lanka has gone a fair way down the green revolution road, there is considerable scope for increased productivity in most crops, both food crops and plantation crops. Of course, once all the domestic market needs are covered, it may be

necessary to consider the production of rice varieties which are different from those consumed locally and are suitable for export.

Agriculture-led development would also require laying additional stress on physical and social infrastructure in the rural areas: transport, power, communications, input-supply systems, education. Again, much has already been done in this respect, and much remains to be done. Increased total-factor-productivity in agriculture would also lead to increased demand for industrially-produced consumer goods. The demand for labour should then go up, both in rural areas -- where an increasing share of new jobs would be created in off-farm activities -- and in urban areas, where low food prices would keep down wage costs and further stimulate industrial investment. Thus, although in absolute terms agricultural employment would grow, its share in total employment would probably fall.

Of course, the fact that agriculture contributes only 25 percent of GDP sets limits on what can be achieved by a strategy laying stronger emphasis on agricultural development. On the other hand, it must be remembered that successful industrialisation seems to have been inseparable from a highly productive agriculture, in the currently developed countries.

By the government's own estimation, Sri Lanka's unemployment problem may be a powder keg waiting to blow up; that makes any strategy which lays emphasis on the development of agriculture, with its potential for rapid employment creation, worth serious consideration. As recent experience has shown, social convulsions like those from which the country is now emerging, play havoc with the best-laid development plans. For that reason, perhaps it would make sense to ensure that at least some elements of this alternative strategy can be implemented side by side with the industrialisation strategy. As the experience of, for instance, South Korea -- which embarked on a plan of agricultural development when already well into its export drive (Adelman, 1990: 20) -- has shown, the two are not necessarily incompatible.

5. CONCLUDING REMARKS

Even a relatively cursory examination of the experience of the NICs brings out sharply the vital role played by the state in guiding industrialisation. Unquestionably, the nature of the state and the character of the political and administrative framework within which industrialisation occurred in those countries are very different from those of Sri Lanka. For that reason, an interventionist policy of the type of those adopted by the NICs may be neither possible nor particularly desirable in the case of Sri Lanka.

What must be kept in mind, however, is the main point in this paper, namely, that the NIC experiences do not support the neo-classical argument that liberalisation of the economy will automatically result in a successful industrialisation. Thus in adopting a strategy characterised by extensive liberalisation and a comparatively small role for the state, Sri Lanka is not following the NICs as much as embarking on a largely uncharted course to industrialisation. Constant awareness of this fact is vital if the pitfalls are to be avoided and the country steered towards an ultimately successful industrialisation.

Table 1
Annual Compound Rate of Growth in Agricultural Productivity, 1949-1970 (Five-Year Average, as %) - Taiwan

	Worker	Working Days	Arable Land (ha)
1946-1951	6.8	3.6	9.2
1951-1960	4.4	3.0	4.6
1960-1970	3.9	3.3	3.9

Source: Amsden, 1979

Table 2
Industrial Policy in Sri Lanka

Period	Industrial Policy	Growth Rate GDP	Growth Rate (% p.a.) MVA
1939-45	Creation of several small-scale industries to supply the local market (mainly because of war scarcities)	?	?
1946-56	Certain state-owned industries close after resumption of imports; others are turned into public enterprises	4.5	?
1956-60	Public sector takes the lead in industrialisation by creating a wide range of public manufacturing enterprises. Industrial policy designed to fulfill certain political, social and economic goals (economic "independence", diversification).	2.0	?
1960-65	High priority to industrial investment. Introduction of import and exchange controls. Incentives to import-substituting industries in the private sector.	4.0	5.2(*)
1965-70	Creation of FEEC; partial trade liberalization and devaluation. Establishment of small and medium scale industries in the private sector encouraged.	5.4	7.3(*)
1970-77	Expansion of public enterprises through new projects and nationalisations. State control on wholesale trade. Progressive shift to quantitative restrictions on imports and increase in state controls.	2.9	1.7
1977-86	Trade liberalization. Removal of the most important foreign exchange controls. Encouragement of private sector activities. Government does not promote the growth of the public sector. Reliance on free market.	5.6	5.8

Sources: Based on World Bank, 1987: 4
Figures from World Bank, 1987: 4; World Bank, 1988, Vol 1:4
Figures marked (*) from Lal and Rajapatirana, 1989: 7

Table 3
GDP and Structure of Manufacturing, 1970-88 in Sri Lanka

	1970	1973	1976	1979	1982	1985	1988
GDP	13187	17920	28032	49782	94679	148321	203516
Value Added In:							
Total Manufacturing	2197	3122	5620	9484	13601	21849	31298
Factory Industry	1085	1563	2416	4546	8777	13301	21146
Tree-Crop Processing	893	1172	2509	3692	2846	5646	6451
Small & Other Industry	219	387	695	1246	1978	2902	3701
Share In M.V.A. (%)							
Factory Industry	49.4	50.1	43.0	47.9	64.5	60.9	67.6
Tree-Crop Processing	40.6	37.5	44.6	38.9	20.9	25.8	20.6
Small & Other Industry	10.0	12.4	12.4	13.1	14.5	13.3	11.8
V.A. as % of GDP							
Total Manufacturing	16.7	17.4	20.0	19.1	14.4	14.7	15.4
Factory Industry	8.2	8.7	8.6	9.1	9.3	9.0	10.4
Tree-Crop Processing	6.8	6.5	9.0	7.4	3.0	3.8	3.2
Small & Other Industry	1.7	2.2	2.5	2.5	2.1	2.0	1.8

Source: Central Bank of Sri Lanka, Annual Reports (various issues)

Table 4
GDP and Value Added in Manufacturing, 1970-88 in Sri Lanka
(constant factor prices, Rs. Million)

Constant 1970 prices							
Year	1970	1973	1976	1979	1982	1985	1988
GDP	13187	14138	15431	18501	21756	25178	27356
Value Added in:							
Total Manufacturing	2197	2266	2371	2659	2955	3518	4263
Factory Industry	1085	1201	1214	1417	1686	2077	2695
Tree-Crop Processing	893	856	860	877	806	912	927
Small & Other Industry	219	209	298	365	463	506	543

Note: The constant price series with 1970 as base was discontinued in 1982 and a new series with 1982 as base was used for subsequent years. In this table, the figures for 1985 and 1988 were linked to the 1970 series.

Source: Central Bank of Sri Lanka, Annual Reports (various issues)

Table 5
Contributions to Value Added in the Factory Sector, 1973-88 in Sri Lanka
(in percentage of total value added in the sector)

Category:	1973	1976	1979	1982	1985	1988
Food, beverages and tobacco	48.30	28.47	41.23	33.42	46.13	39.07
Textile, wearing apparel and leather products	13.69	10.80	6.60	7.22	19.41	22.79
Wood and wood products (including furniture)	1.28	3.17	2.39	1.98	3.14	2.20
Paper and paper products	2.77	2.19	6.31	3.80	4.06	3.57
Chemicals, petroleum, rubber and plastic products	13.55	38.06	19.96	28.51	10.49	18.18
Non-metallic mineral products (except petroleum & coal)	8.94	8.90	12.83	12.75	8.15	6.21
Basic metal products	0.57	1.54	2.44	0.21	0.28	0.34
Fabricated metal products, machinery & transport equipment	9.93	6.21	7.91	11.69	7.89	7.21
Manufactured products n.e.s	0.99	0.65	0.32	0.43	0.44	0.43
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00

Source: Central Bank of Sri Lanka, Annual Reports (various issues)

Table 6
Changes in Composition of Exports
(SDR million in Brackets)

Category	Rs. Million		Percentage of Total	
	1978	1988	1978	1988
1. Agricultural Exports	10,416 (532)	20,104 (470)	79	43
1.1 Tea	6,401 (327)	12,299 (288)	49	26
1.2 Rubber	2,021 (103)	3,706 (87)	15	8
1.3 Coconut Products	1,271 (65)	1,538 (36)	10	3
1.4 Minor Agr. Crops	723 (37)	2,561 (60)	5	5
2. Industrial Exports	1,849 (94)	22,674 (530)	14	48
2.1 Textile and Garments	481 (25)	14,260 (333)	4	30
2.2 Petroleum Products	945 (48)	2,265 (53)	7	5
2.3 Other	423 (22)	6,148 (144)	3	13
3. Mineral Exports	626 (32)	2,614 (61)	5	6
3.1 Gems	531 (27)	2,070 (48)	4	4
3.2 Other	95 (5)	543 (13)	1	1
4. Unclassified	302 (15)	1,536 (36)	2	3
5. Total Exports (a)	13,193 (674)	46,928 (1.097)	100	100

(a) adjusted

Adapted from Central Bank of Sri Lanka

Sources: Customs, Sri Lanka
Ceylon Petroleum Corporation
Central Bank of Sri Lanka

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