Arthur Lewis and Industrial Development in the Caribbean: An Assessment*

By

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Caribbean: An Assessment**

1 Introduction

The economic history of several developed or advanced countries indicates that industrial development (namely, the expansion of manufacturing activities) has been an important element in the achievement of a high standard of living. Several less developed countries have sought to emulate the experience of these developed countries by fostering the development of manufacturing operations. Governments have provided the necessary infrastructure (roads, water and electrical systems, ports, etc) and the policy framework to expand industrial operations which would widen the range of available goods and services and provide foreign exchange earnings and employment opportunities.

Countries within the Commonwealth Caribbean have not been an exception to this industrialisation drive. Although small-scale residential manufacturing activity took place during the early decades of this century, industrial development in the Caribbean has been largely a post World-War II phenomenon. Commonwealth Caribbean countries experienced a long period of British colonial rule which fashioned the nature of economic activity until independence in the 1960s and 1970s. Colonial economic policy towards the Caribbean was reflected in the neo-mercantilist ideology of comparative advantage (Best, 1980). Colonial economic policy reinforced by a political system which supported the interests of the agro-commercial elite did not incorporate measures to foster industrial development in the region. The crux of the argument against industrial development in the region was that Caribbean countries lacked the raw materials (coal, iron, etc), the capital and the industrial skills to undertake full-fledged industrial activity. Furthermore, the small and fragmented domestic markets existing in the Caribbean would have been unable to support many medium and large-scale operations. Official economic policy supported the continuance of agricultural production (that is, sugar, bananas) under a preferential trading arrangement with the United Kingdom. Early post-war development plans produced by the colonial authorities emphasized

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agricultural development with a few `minor' residential industries processing local raw materials.

Many local politicians and social commentators strongly advocated the need for industrial development in the Caribbean in an effort to create employment opportunities and to diversify domestic production in light of the depression of the 1930s (see Bernal, 1988; Figueroa, 1992; Downes, 1985; Farrell, 1980). Figueroa (1992), for example, traced the advent of manufacturing in Jamaica back to the 1830s. He noted that while much of the early manufacturing activity was linked to the agricultural sector (that is, the sugar industry), there was a growing manufacturing sector in the early 1900s producing primarily for the domestic market (matches, baking products, aerated drinks, bricks). Figueroa (1992) further noted that pioneer laws to promote industrial development in Jamaica were enacted in the first decade of the 20th century. It was Sir Arthur Lewis, however, who first formulated a coherent strategy for industrial development in the Caribbean. In the aftermath of the uprisings in the 1930s, Lewis (1938), writing on the birth of the workers' movement in the Caribbean, advocated the need for industrial development based on the utilisation of local raw materials (e.g., sugar refining, chocolate making, copra and dairy products). His paper entitiled "*Industrialisation of the British West Indies*", published in 1950, provided a fully articulated framework for capitalist industrial development in the small states of the Caribbean (Lewis, 1950). Prior to this seminal paper, Lewis had outlined aspects of a strategy for industrial development in Jamaica in his critique of the Benham economic plan for Jamaica and reviewed the industrial development experience of Puerto Rico which provided important insights for the Commonwealth Caribbean (Lewis, 1944, 1949). These works no doubt helped him to formulate a more general `model' of economic development as discussed in his celebrated 1954 paper on "*Economic Development with Unlimited Supplies of Labour*" (Lewis, 1954).

The purpose of this paper is to assess Lewis' ideas on industrial development in the Caribbean formulated over the period 1938 to 1950. In section two, Lewis' strategy of industrial development in the small states of the Caribbean is outlined. The industrialisation experience of Caribbean countries since the 1950s is then reviewed in section three. The final section

examines the future of industrial development in the Caribbean in light of the changing regional and international environments.

2 Lewis' Strategy of Industrial Development

Lewis' writings on industrial development in the Caribbean over the 1938-1950 period suggest an `export-led labour-intensive strategy of industrial development'. There are two variants of this general strategy (see Downes, 1985, pp. 60-71). The first variant is the outcome of his critique of the Benham economic plan for Jamaica and is based on the use of local natural resources; that is, `export-led natural resource-based industrialisation' (Lewis, 1944). The second variant is based on the experience of Puerto Rico and places great emphasis on foreign investment and the granting of fiscal incentives (Lewis, 1950). This variant has been coined `export-led industrialisation by invitation' (Best, 1976).

Lewis' strategy is based on a set of premises:

(i) surplus labour
(ii) market size
(iii) labour cost
(iv) financial investment
(v) risk aversion

The surplus labour premise is probably the most important one. Lewis argued that the case for industrial development in the Caribbean rested on the over-population existing in the region. The population to land ratio was too high for agriculture to support the growth in the labour force. Given the high levels of unemployment and under-employment, especially in Barbados, Jamaica and the Windward and Leeward islands, there was an urgent need to create jobs off the land. He saw industrial development **complementing** agricultural development in raising the standard of living and providing productive employment.

With regards to the market size premise, it was argued that the domestic and regional markets

were too small in terms of population size and per capita income to support the level of industrial development needed to achieve `full employment'. Although regional economic integration is regarded as a *sine qua non* for a large scale industrial programme in the region, Caribbean countries need to target manufactured products for extra-regional markets.

The relatively low labour costs in Caribbean labour markets (occasioned by high levels of unemployment and low productivity in the agricultural sector) would be one incentive to industrialists seeking to minimize the costs of production. This relative price advantage would encourage the use of labour- intensive methods of production.

The establishment of an industrial complex is an expensive undertaking requiring marketing skills, capital and technical expertise. With a low level of per capita income, the level of savings would be insufficient to meet the level of industrialisation needed to resolve the unemployment problem. Foreign investment would be required to provide access to foreign markets and to fill the `resource gap'. Although Lewis later argued that "the West Indies can supply all the capital that is required" for industrial development (for example, via taxation), the marketing and labour cost issues were still crucial.

Finally, Caribbean capitalists were regarded as `risk averse', expressing a preference for the distributive trades and protected agricultural production rather than manufacturing production, especially for export. In order to develop the industrial sector, there was a need to invite foreign industrialists to establish operations so that local capitalists could be taught the `tricks of the trade' (i.e., industrialisation by invitation). Having learnt the `tricks', local industrialists would be able to take over the drive for greater industrialisation in the region.

There are three main elements in Lewis' approach to industrial development in the Caribbean: markets, resource availability and economy policy formulation. With respect to the market for manufactured goods, Lewis argued that the extra-regional market provided the greatest potential for utilizing the surplus labour of the Caribbean. The primary reason for this

conclusion was that domestic demand for manufactured goods would be too low to support domestic production on an economic scale. The low level of per capita income and the diversity of demand would not permit large-scale economic production for the domestic or regional markets. Lewis was aware of the potential difficulties which `small, newly industrializing' countries would face in their attempt to compete in established markets for manufactured goods. Nevertheless, by applying the theory of monopolistic competition to international trade, he indicated that product differentiation would allow small states to be successful at exporting a range of products. This is the essence of `**niche marketing'** being suggested for today's manufacturers attempting to break into international markets.

With respect to resource availability, Lewis indicated that the secret of successful industrial development rested on a country specialising in those goods "to which its resources are most appropriate" and the avoidance of others (Lewis, 1950, p. 18). In his strategy for natural resource-based industrial development in Jamaica (variant one), Lewis (1944) suggested three criteria to govern the selection of industries. First, there was need to encourage those industries which process locally available raw materials. Second, those industries which require relatively small quantities of power, capital equipment and specialized skills should be given priority. Third, industries which are not associated with marked `internal economies of scale', that is, those which do not have a large `minimum efficient scale of plant' or high cost penalty, should be developed. In addition, those industries offering a great scope for female employment should also be highly considered since the highest rate of unemployment existed (and still exists) among young females. Lewis further elaborated on the choice of industries in his seminal paper on industrial development in the British West Indies (Lewis, 1950). His choice of industries was based on eight indices reflecting four aspects of his industrial development programme for the Caribbean: the labour intensity of production; resource and energy requirements, the extent of scale economies and the degree of agglomeration economies (which reflects his regional approach to industrial development). Using available census information, Lewis identified the `most favourable' industries for establishment in the Caribbean as: garments, footwear, leather and hosiery, textiles, china and glass, building materials (non-

metallic mineral products), paper products and food canning. In addition, plastics, rubber goods, electrical switches, toys and electrical lamps could be produced along with light engineering industries. Lewis also noted that industrial development could thrive "by importing raw materials, processing them and exporting the finished product" (Lewis, 1950, p. 35).

The promotion of labour-intensive export industrialisation requires appropriate economic policies and institutions in order to be successful in small developing countries. In the area of economic policy making, Lewis (1944, 1950, 1958, 1972) emphasized several measures which were needed to promote industrial development in the region.

First, the marketing of products is important for a small developing country embarking on an export-led path. Since the domestic market would be too small to support any meaningful industrialisation, both traditional and non-traditional trading partnerships would have to be forged (i.e., strategic marketing and alliances). Within the wider Caribbean context, there were (are) a few industries which the regional market could support on an economic scale. If the planning of regional industrial projects can be carefully undertaken, then intra-regional trade can be realised. The regional market would however be able to support a small percentage of the industries required to achieve `full employment'. The countries of the Caribbean therefore had to look outside of the region for markets.

Two possibilities were identified by way of `South-South' trade and ` North-South' trade. Since the small Caribbean states are not remote from either Latin or North America, these two areas offered the best prospects as extra-regional markets. As Lewis hopefully noted, if "the West Indies could capture half of its own domestic market, plus 2% of the manufactured imports of Latin America and of the USA, the islands' employment problems would be completely solved" (Lewis, 1950, p.32). However, the influence of the `structuralist' school in Latin America would have made it difficult to export to that market. Prebisch (1949) was at the same time making a case for import substituting industrialisation in Latin America. Unless special arrangements could be made, the tariff and other import restrictions associated with

import substitution would have made entry into the Latin American market difficult. It is not clear if Lewis was aware of the Latin American approach to industrial development in his identification of Latin America as a possible target market for Caribbean exports.

The realities of the international economy in the 1950s meant that the USA would be the main market for West Indian manufactured goods. He felt that American industrialists could be encouraged to establish operations in the Caribbean. These companies would be able to export their manufactured goods through well-established intra-branch trading arrangements. He also felt that the workforce was flexible and adaptable to industrial tasks which were needed by exporters. The Caribbean would be the centre of American off-shore manufacturing activity and `full' employment would be achieved.

Lewis considered four possible ways of achieving `full' employment through industrial development (Lewis, 1944, pp. 160-1, 1958, 1972). First, exchange rate policy, namely, a devaluation of the currency which would reduce the costs of exports in terms of world prices. Such a policy measure would enhance international price competitiveness thus expanding foreign demand and through the foreign trade multiplier, increasing domestic income and employment. The income and employment effects of this policy measure depend on the relative price elasticities of demand for imports and exports (that is, the Marshall-Lerner condition). The second measure involves the use of an incomes policy, whereby the price level would be reduced by "cutting wages, salaries, profit, rents and other incomes. This would have the same ultimate effects as devaluation; production would expand, imports be cut, payments balance and employment be created", while maintaining a nominal exchange rate policy anchor (Lewis, 1944, p. 160). The third measure, which is considered the best theoretical and long-term solution, is increasing productivity. This requires a multi-dimensional policy framework since increases in productivity depend on health and nutritional facilities, education and training, incentives, capital allocation and use and the social and political philosophy of the people of the country. By increasing productivity, especially in the agricultural sector, incomes would increase and consequently, the proportion spent on manufactured goods would rise.

The fourth measure relates to the direct promotion of manufacturing activities and is considered as the only practical alternative to develuation. A "deliberate restriction of imports and concentration on an attempt to increase production for home consumption" could be adopted (Lewis, 1944, p. 161). Lewis therefore suggested an `import substitution' strategy of industrial development as an alternative. Nevertheless, he regarded this approach as `second best' vis-à-vis `export expansion' via devaluation. The four measures must not be viewed as being mutually exclusive since the practicalities of economic policy making make it inevitable to consider the four measures simultaneously. The first three measures (devaluation, incomes policy and productivity) reflect the measures needed to increase international price competitiveness by reducing a country's relative real unit costs of production.

Another aspect of economic policy making in Lewis' strategy is the granting of incentives to overcome the handicaps of setting up an industrial plant. In such pioneering activities, Lewis used the `infant industry argument' that pioneers need to have "considerable incentives, such as temporary monopoly rights, or subsidies, or a tax holiday or tariff protection" since "the initial cost may be very high (Lewis, 1950, p. 37). These incentives along with the relatively low wage costs were viewed as crucial to attracting foreign investors to the region. Since domestic resources were not forthcoming from the local capitalist class to meet the required level of industrial development, foreign investment was needed to bridge the gap and hence generate employment in the `medium run'. As Lewis notes, the local capitalist class was "not familiar with new manufacturing industries, in the sense both that they do not know the techniques and also that they do not know how much risk to attach to new ventures" (Lewis, 1955, p. 349).

In Lewis' industrial development strategy a prominent role is played by the government. In addition to the design and implementation of policy measures, the government is expected to establish the appropriate institutions to facilitate the industrialisation process. Lewis envisaged the industrial development process in the Caribbean with an integrated **regional** framework (similar to a CARICOM single market and economy now being advocated by regional politicians and technocrats). An essential element of the Lewisian strategy was the formation

of a **customs union**. The first step after the establishment of a customs union would be the setting up of a **Regional Industrial Development Corporation** which would undertake the promotion of industrial development. By establishing offices in more industrialised countries, the Corporation would be able to encourage foreign industrialists to establish plants in the region during a ten-year period of "wooing and fawning". A **Regional Development Bank** would supplement the financial requirements of the programme since foreign investors would be the main financiers. The Bank would be a `lender of last resort' as well as support local capitalists in joint ventures and separate undertakings since these industrialists would form the backbone of long term and sustainable industrialisation in the region. Both the Bank and Corporation would be involved in the establishment of industrial estates which would service the foreign and local industrialists. The government would also be responsible for the preparation of industrial plans, finance industrial feasibility studies, estimate manpower and energy requirements, initiate training schemes and provide the necessary facilities and services in modern industrial estates.

Lewis' strategy of industrial development was conceived in the socio-economic and political environments of the 1940s and 1950s. Although the domestic, regional and international economic environments have changed over the past four to five decades, his strategy provides certain **fundamental elements** of industrial development in small developing states. These are:

(i) the need to focus on the international export market, with an emphasis on international niche marketing. Where relevant, regional integration should support the export drive in the form of regional industries (i.e., a form of a single market and economy);

(ii) since the export market is vital to the industrialisation drive, small developing countries need to pursue policy measures which would make their products internationally competitive (e.g., exchange rate policy, incomes policy, productivity measures);

(iii) given their narrow resource base and limited bargaining power, small developing countries have to establish strategic alliances with international

(foreign) industrialists (e.g., direct foreign investment, joint ventures, franchising);

(iv) the State has an important role to play in the industrial development process via the design and implementation of appropriate policy measures and the establishment of the institutional framework and social infrastructure needed to facilitate the industrialisation process;

(v) where there are high levels of unemployment, industrial policy should be designed to provide direct and indirect employment opportunities. These small developing countries should however engage in human resource development to match the technological changes taking place in the manufacturing sector;

(vi) industrial enterprises should seek to utilize local resources where possible and thus create backward and forward linkages with other sectors of the economy (agriculture, general services, tourism).

3 The Industrialisation Experience in the Caribbean

Prior to the 1950s industrial activity in the Caribbean was limited to the processing of agricultural products for export (e.g., rum) and a number of small scale residential enterprises geared towards local consumption (bread, biscuits, clothing, bricks, edible oils, cigarettes). Some of these operations were encouraged by the shortages caused by the disruptions of the world wars. Sir Arthur Lewis' work on industrial development however helped to fashion industrial policy making in the 1950s. Political leaders saw Lewis' strategy as a vehicle for overcoming the unemployment problem facing their countries. Rather than adopt a unified approach to industrial development in the context of a customs union as suggested by Lewis, Caribbean governments decided to approach industrial development individually.

A review of the industrialisation experience in the Caribbean can be presented in terms of (i) the institutional and policy framework adopted and (ii) the contribution of industrial expansion to overall economic growth, employment generation and foreign exchange earnings.

In terms of the institutional and policy framework, all the Caribbean countries enacted fiscal incentives to encourage foreign and local capitalists to establish industrial plants. Pioneer incentive legislation was introduced in most Caribbean countries in the early 1950s and later refined in the late 1950s and during the 1960s and 1970s. Industrial incentives legislation included such measures as:

(i) exemption of profit and gains from corporate income tax (i.e., the granting of a tax holiday which varied from 6 to 15 years depending on the degree of `local value added' generated by the enterprise);

(ii) the adjustment of income and property taxes to provide accelerated capital depreciation allowances to firms. This measure would allow companies to quickly write off capital equipment and purchase new technologically advanced equipment and machinery;

(iii) carry-over losses made during the tax holiday to be set against future profits;

(iv) exemption from personal income tax for interest income obtained from debenture stock in an approved enterprise;

(v) relief from trade taxes and fees;

(vi) duty-free importation of raw materials, machinery, equipment and spare parts;

(vii) the provision of low rental factory space established mainly in industrial parks supported by good roads, water supply, sewerage systems, electricity, etc;

(viii) special tax concessions for export-oriented companies.

Each Caribbean country offered the same basic fiscal incentives to industrialists, so that on the formation of the Caribbean Community and Common Market (CARICOM) in 1972, there was a need to harmonize those incentives in order to avoid inter-country rivalry. This harmonizaton was achieved in 1974. These fiscal incentives have played an important role in the location and investment decisions of local and foreign industrialists, especially in the areas of textiles and wearing apparel (garments), chemicals, assembly-type operations (electronic components and

other miscellaneous manufacturing activity).

It has been argued that tax incentives legislation is largely redundant since such initiatives have limited, if any, impact in attracting foreign investment [see, for example, Chen-Young, 1967]. Recent research indicates that both economic variables (exchange rate, market size, wage rate differentials and tax on foreign firms' income) and structural/locational variables (human capital, physical infrastructure) are significant factors in attracting US direct investment to the Caribbean [Lall, Norman and Featherstone, 2003].

Governments in the region also established industrial development corporations (and, in some cases, development banks) to promote and finance industrial development. For example, in Barbados, a Development Board was established in 1957 to facilitate industrial development. This Board was divided into two institutions in 1969 - the Barbados Development Bank to provide financial assistance and the Barbados Industrial Development Corporation to promote and administer the incentives to industry. Today, the Bank has been closed and the Corporation has been renamed the Barbados Investment and Development Corporation. St Lucia has established a National Development Corporation to promote industrial development.

Although Caribbean governments have actively sought to promote industrial development in the region, the manufacturing sector accounts for a relatively small percentage of total domestic production (see Table 1). The available data indicate that in 1980 the share of manufacturing output in total domestic production varied from 3.3 percent in Guyana to 16.6 percent in Jamaica. The evidence also shows a decline in the contribution of manufacturing production to total production over the period 1980-2000 in Antigua/Barbuda, Barbados, Belize, Jamaica, Montserrat, St Kitts/Nevis, St Lucia and St Vincent. This decline may be due to the promotion of services sector along with factors which have adversely affected manufacturing production in these countries.

An analysis of growth and structural change in the manufacturing sector would indicate the

following features:

(i) a reduction in the number of `early industries' catering to local demand (handicraft industries, bakeries, soft drink factories);

(ii) a focus on light manufacturing (consumer-oriented goods) with little or no capital goods industries (with the exception of Trinidad and Tobago);

(iii) weak intersectoral and intrasectoral linkages as the import content of manufactured goods remains high;

(iv) the growth of export processing (enclave) companies in Jamaica, St Lucia, Barbados. These companies are engaged in offshore data processing and in the assembly and manufacture of garments, footwear, electrical and electronic equipment, toys and other goods (see Willmore, 1994, 1995). These companies are largely foreign-owned (especially by US nationals) and take advantage of special trade provisions (e.g., Caribbean Basin Initiative (CBI), Special Access Program 807A/9802A and the Jamaica Export Industry Encouragement Act). They are also very `foot loose'.

(v) although small establishments (less than 25 employees) are dominant in the manufacturing sector, they account for a relatively small proportion of industrial output. Medium and large establishments account for a relatively small proportion of industrial output. Medium and large establishments account for most of the output and tend to be export oriented. Small enterprises however contribute to the diversity of production in the sector.

In the Caribbean, therefore, three types of industries have developed since the 1950s:

(i) import substituting industries which were first established in the 1960s. These provide such goods as beverages, tobacco, textiles/garments, furniture, paper products. Some of the enterprises in these industries have been able to export some of their goods to other Caribbean countries;

(ii) export-processing industries which take on two forms:

(a) those which process local raw materials - handicrafts, agro-

products (soap, juices, food products),

(b) those which have enclave status - garments, electronic components, office machinery, information processing;

(iii) heavy processing industries such as alumina processing in Jamaica and Guyana and petro-refining and energy-based industries in Trinidad and Tobago.

The main reason behind the industrial development drive in the region has been the provision of employment opportunities both directly and indirectly. Data on employment in the manufacturing sector in the Caribbean are difficult to obtain. The available data for Barbados indicate that in 1980, the manufacturing sector accounted for 15 percent of the employed labour force of 100,300 persons, while in 2000, the contribution was 10 percent of 125,500 persons. In Jamaica, the contributions were 11.1% and 8% for 1978 and 2000, respectively. Willmore (1995) indicated that in 1993, the manufacturing sector accounted for 12.2% of total manufacturing employment (i.e., 6000 persons), with export processing firms accounting for approximately 47 percent of these employed persons. Trinidad and Tobago has however witnessed an increase in the proportion of persons employed in the manufacturing sector from 9.5 percent in 1987 to 12.3 percent in 2000. Despite the industrialisation drive, unemployment still remains a serious problem in the region (see Table 2). Data for selected Caribbean countries show that in the 1990s, official unemployment rates were generally over 10 percent. Unemployment is particularly acute among young females (also identified by Lewis in the 1940s). Export processing industries (garments, electronic assembly and informatics) have been able to provide employment for young females, but greater industrial expansion is needed in order to overcome the problem.

The manufacturing sector has contributed significantly to the domestic exports of Caribbean countries. For example, manufactured exports accounted for 30 percent of total domestic exports in the 1990s in most countries (see Table 3). In Barbados and Jamaica, manufactured exports accounted for 50 percent of domestic exports in the 1990s. Manufactured exports have however suffered from recession in the world economy and economic difficulties in CARICOM states.

The principal manufactured exports from the region include rum (Bahamas, Barbados, Guyana), chemicals (Bahamas, Barbados), clothing (Belize, St Kitts), alumina (Jamaica), petroleum products (Trinidad and Tobago), agro-products (Barbados, Belize, Jamaica). The USA is the main export market for Caribbean products [see Table 4]. Although the proportion of CARICOM exports to the USA declined from 48.7 percent in 1980 to 35.2 percent in 1998, exports of the manufacturing sector have benefited from special trading agreements such as the Caribbean Basin Initiative (CBI) and the presence of American foreign investors in the sector. There has been some notable growth in intra-CARICOM trade; from 8.9 percent in 1980 to 22.5 percent in 1998.

Thomas (1988) has identified several weaknesses in the industrialisation drive in the Caribbean over the past three decades which have affected the realisation of the potential which was envisaged. These weaknesses include:

(i) a focus in the domestic market through import substitution. There has been an anti-export bias in the design and implementation of industrial policy (e.g., high tariff walls),

(ii) high capital intensity of production which has been an outcome of the fiscal incentives granted to foreign investors (e.g., accelerated depreciation allowance and duty-free importation of capital and equipment),

(iii) under-utilisation of plant as a result of (i) and (ii) above,

(iv) few backward and forward linkages, especially in export processing industries,

(v) a high degree of industrial concentration, that is, one or two firms dominate in the market,

(vi) the absence of regional industrial programming to promote regional industries as envisaged by Lewis. There are very few (5-6) companies operating on a regional basis in the manufacturing sector. The CARICOM Enterprise Regime, designed to promote regional firms, has not taken root in the

region,

(vii) industrial development has been associated with increasing urbanisation especially in Jamaica, Barbados and Trinidad and Tobago,

(viii) an underdeveloped indigenous industrial class which can develop strategic alliances with foreign capitalists. The emphasis on export processing zones has stymied the development of this class and therefore it has not learnt the tricks of the trade.

Although industrial development has been partly influenced by the ideas of Sir Arthur Lewis, the experience shows that some important elements of his strategy have not been pursued (for example, the pursuit of export-led industrialisation within a regional integration framework). An insular or nationalistic approach has been taken to industrial development although attempts have been made to harmonize fiscal incentives. Attempts at regional industrial programming and a regional enterprise regime have not been successful. With the movement towards a CARICOM single market and economy and a gradual reduction of the Common External Tariff (CET), a greater effort may be made towards the establishment of regional industries geared towards the extra-regional market.

4 The Future of Industrial Development in the Caribbean

Over the next decade, the manufacturing sector in the region will face major challenges which can affect its ability to contribute meaningfully to domestic production, employment creation and foreign exchange generation. First, the post-Uruguay Round world of trading relationships, being overseen by the World Trade Organisation (WTO), would mean:

(i) tariff reductions for a range of manufactured goods (wood and wood products, metals, textiles, clothing, etc)

(ii) the phasing out of the bilaterally negotiated import quotas on textiles and clothing under the Multifiber Arrangement (MFA) which came into existence in 1974. During the phasing out of the MFA, goods subject to

MFA quotas will gradually be integrated into GATT (the General Agreement on Tariffs and Trade)

(iii) the elimination of such non-tariff barriers as voluntary export restraints (VERs) - agreement between an importing and an exporting country whereby the latter agrees voluntarily to restrict exports to the former - and orderly marketing arrangements (OMAs) - which are similar to VERs with the provision that if the agreed limit is exceeded an explicit import quota can be imposed automatically by the importing country

(iv) prohibition of export subsidies

(v) new arrangements for trade-related investment measures (TRIMs) and trade-related intellectual property rights (TRIPs)

(vi) a general agreement on trade in services(GATS) which can impact on industrial policy

[see Bora, Lloyd and Pangestu, 2000].

These measures would intensify the degree of trade liberalisation within the world economy and hasten the need for new industrial policies.

Second, the formation of the North American Free Trade Area (NAFTA) between USA, Canada and Mexico and its possible extension to the Free Trade of the Americas (FTAA) incorporating other Latin American and Caribbean countries would mean greater competition in the North American market for Caribbean products. In a small scale qualitative survey of manufacturing firms in selected Eastern Caribbean countries, Marshall and Williams (2002) found that only a few firms had the capability to compete within a FTAA arrangement and to achieve 'world class manufacturing' standards. The main areas in which firms had a strong potential to be world class were food and beverage (that is, a brewery), electronics and paper products. These firms have links with foreign investors.

Third, the gradual reduction of the Common External Tariff (CET) within CARICOM would enhance international competitiveness and force rationalisation of production structures.

Fourth, the movement towards a CARICOM Single Market and Economy (CSME) with the free movement of capital and labour, the removal of non-tariff barriers, the creation of a common currency and the harmonization of economic policies would also lead to a rationalisation of regional production and enhance international competitiveness. It is expected that the CSME would form the platform on which Caribbean enterprises would be able to achieve economies of scale and scope and therefore reach the minimum efficient size needed to lower the unit costs of production. The revised Treaty of Chaguaramas, which governs that CSME has provisions for the promotion of industrial development in the region.

Fifth, the globalisation of production and new developments in technology (computer, information and materials) would bring greater flexibility in the production process as computer-aid manufacturing (CAM) and just-in-time (JIT) systems become more prominent.

These changes in the regional and international environments emphasize the need to increase productivity and improve international competitiveness. Caribbean countries must adjust to meet the challenges and opportunities created by the new economic environment. Many commentators have looked to East Asia to identify the factors for successful industrialisation and economic growth. For example, a World Bank study of the so-called `**East Asian Miracle**' "maintains that East Asian economies thrived because governments used a combination of fundamental and interventionist policies to (1) accumulate physical and human capital; (2) allocate this capital to highly productive investments; and (3) acquire and master technology and achieve rapid productivity growth" (Page, 1994, p.3). Many of the measures used in these countries can be found in the work of Sir Arthur Lewis, namely, the building of human capital, the need to increase savings and domestic investment, government intervention, the use of foreign technology, the encouragement of export and the promotion of domestic entrepreneurship (see Table 6).

Recent studies on productivity and competitiveness of the Jamaican manufacturing sector re-emphasised the main elements needed to face the new economic environment [see Harris 1995, Downes, 2003]. Harris' study called for a policy matrix which contains measures to: promote specific infrastructural investments which reduce the costs of production, develop information technology as a key strategy sectoral activity, re-orient technology as a key strategy sectoral activity; re-orient the system of incentives to boost export value and overall production and to target specific investment projects in such areas as agro-processing, industrial minerals, minerals and services. As Marshall and Williams (2002) have argued, there is need to anchor the services-sector oriented development strategy adopted by several Caribbean countries to the manufacturing sector. This means that Caribbean countries must seek to develop a 'new manufacturing' strategy which would include the use of modern technology, skilled persons and a focus on 'world class' standards and greater sectoral linkages. Downes (2003) has argued that in the case of Jamaica, greater emphasis should be placed on human resources development, (education and training), productivity management, social dialogue and public sector reform (to reduce the bureaucratic red tape) in order to boost productivity and competitiveness in the economy [see also Wint, 2003].

There is evidence of an evolving new industrial thrust in the region [see Farrell, 2003; CARICOM, 2000]. Several Caribbean enterprises are merging or amalgamating in order to achieve the critical size required for the extra-regional market. These are becoming Pan Caribbean firms, very much along the lines suggested by Arthur Lewis: Grace Kennedy (Jamaica), Neal and Massy, Bermudez, TCL (Trinidad and Tobago). These regional companies are diversifying into services-oriented activities as part of their market extension diversification strategies. Furthermore, several of these companies are cross-listed in the region's stock exchanges thus gaining access to a 'regional' capital market.

Although the economic environment has changed since the 1950s, several of the fundamental elements of the industrial development strategy for small developing countries suggested by

Lewis are still relevant. In many respects, the drive towards a CSME and the formation of the FTAA will highlight several of the elements of the strategy which have not been implemented by Caribbean governments over the past fifty years.

There is no doubt that Sir Arthur Lewis' work has had a powerful effect on economic policy making in the Caribbean. A re-assessment of his work on industrial strategy and policy would indicate that many of the fundamentals are still relevant in today's economic environment and that the framework shows a keen understanding of the analytical issues facing small developing countries. These elements are critical to the discussion in the international arena on the need for 'special and differential treatment' for small developing countries.

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Table 1

The Contribution of Manufacturing to Gross Domestic Product

1980, 1985, 1990, 1995, 2000

(%)

Country	1980	1985	1990	1995	2000
Anguilla	n.a.	1.1	0.7	0.8	1.4
Antigua/Barbuda	5.3	4.3	3.4	2.3	2.3
Bahamas	n.a.	n.a.	3.2	3.2	n.a.
Barbados	12.5	10.6	8.0	6.7	6.2
Belize	16.1	16.7	15.7	13.7	13.2
Dominica	4.8	6.4	7.1	7.2	8.7
Grenada	3.9	5.1	6.5	7.4	7.6
Guyana	3.3	9.8	5.2	3.8	2.6
Jamaica	16.6	20.0	19.5	17.5	13.7
Montserrat	6.0	6.0	1.0	3.2	0.8
St Kitts/Nevis	15.2	12.1	12.8	10.7	10.4
St Lucia	8.4	8.5	8.1	6.9	5.1
St Vincent	10.7	11.6	8.5	8.4	6.0
Trinidad/Tobago	6.9	7.3	8.6	8.1	8.0

Source: Caribbean Development Bank: *Social and Economic* Indicators, various issues
ECCB
Bank of Guyana, Statistical Bulletin, Statistical Bureau
Central Statistical Office and Central Bank of Trinidad and Tobago

Table 2

*

Estimates of Unemployment in the Caribbean 1990-2002
(%)

Country	1990	1992	1994	1996	1998[1]	2000
Anguilla	n.a.	7.2	n.a.	n.a.	n.a.	n.a.
Antigua/Barbuda	6.8	7.8	6.7	7.0	7.8	n.a.
Bahamas	n.a.	14.8	13.3	n.a.	n.a.	n.a.
Barbados	15.0	23.0	21.9	15.6	11.8	9.2
Belize	n.a.	n.a.	11.1	13.8	14.3	11.5
Dominica	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Grenada	n.a.	n.a.	29.1	17.5	n.a.	n.a.
Guyana	n.a.	11.7	n.a.	n.a.	n.a.	n.a.
Jamaica	15.3	15.7	15.3	16.0	n.a.	15.5
Montserrat	1.0	9.0	8.3	n.a.	n.a.	n.a.
St Kitts/Nevis	n.a.	n.a.	4.5	n.a.	n.a.	n.a.
St Lucia	n.a.	n.a.	n.a.	n.a.	n.a.	16.5
St Vincent	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trinidad/Tobago	faauto20.0	19.6	18.4	16.2	14.2	12.8

Source: CDB, Social and Economic Indicators, 1996
CDB, Annual Report 2001
Caribbean Community Secretariat, Trade and Investment Report, 2000

Table 3
Manufacturing Exports as a Percentage of Merchandising Exports,

*

1970-2000

Country	1970	1975	1980	1985	1990	1995	2000
Anguilla	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Antigua/Barbuda	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bahamas	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	43
Barbados	n.a.	n.a.	n.a.	n.a.	43	59	52
Belize	n.a.	18	18	25	15	12	11
Dominica	n.a.	n.a.	54	35	32	47	56
Grenada	n.a.	n.a.	8	5	20	15	65
Guyana	3	3	n.a.	n.a.	n.a.	n.a.	16
Jamaica	n.a.	54	63	53	69	71	73
Montserrat	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
St Kitts/Nevis	n.a.	n.a.	n.a.	n.a.	n.a.	41	73
St Lucia	n.a.	23	42	26	28	32	20
St Vincent	n.a.	n.a.	14	n.a.	n.a.	14	13
Trinidad/Tobago	13	6	5	18	27	26	29

Source: World Development Indicators Database

Table 4

Distribution of CARICOM's Total Exports by Principal Destinations

*

1980-1998
(%)

Destination of Exports	1980	1985	1990	1995	1996	1997	1998
USA	48.7	47.2	40.7	34.1	38.5	35.3	35.2
European Union	16.5	17.8	20.6	20.9	18.0	18.1	16.9
CARICOM	8.9	12.8	12.1	16.5	18.3	19	22.5
LAIA[1]	1.9	2.1	2.8	5.4	5.2	4.6	3.7
Selected Asian Countries	0.4	1.3	1.2	1.5	0.9	1	0.6
Rest of the World	23.6	18.8	22.5	21.6	19.1	22	21.1

Source: CARICOM Secretariat. 2000. Caribbean Trade and Investment Report and a Quick Reference to some Survey Data, 1980-1996

Notes: [1]IAIA: Latin American Integration Association

Table 5
Trends in Average Tariff Rates for Caribbean Countries, 1980-1999

*

Economy	1980	1985	1990	1995	1999
Antigua/Barbuda	n.a.	12.0 (86)	15.0 (89)	12.0	9.0 (98)
Bahamas	29.8	32.3 (87)	n.a.	32.0 (96)	n.a.
Barbados	n.a	17.3 (86)	22.0	17.0	13.6
Belize	n.a	17.3 (86)	20.0	17.0	9.2 (98)
Dominica	n.a.	31.9 (87)	28.0	15.0	n.a.
Grenada	n.a.	22.8 (87)	16.0 (89)	10.8	7.6
Guyana	n.a.	17.4	20.0 (89)	17.0	n.a.
Jamaica	16.0 (82)	17.0	20.3 (91)	n.a.	8.7
Montserrat	n.a.	n.a.	n.a.	n.a.	n.a.
St Kitts/Nevis	n.a.	12.9 (87)	n.a.	n.a.	92 (98)
St Lucia	n.a.	12.0 (87)	n.a.	n.a.	9.7 (98)
St Vincent	n.a.	17.3 (86)	n.a.	n.a.	9.2 (98)
Trinidad and Tobago	n.a.	n.a.	18.6 (91)	18.7	9.2 (98)

Source: The World Bank 2002: ***Development, Trade and the WTO: A Handbook***

Table 6

Policy Measures Contributing to the Success of East Asian Economies

1 ACCUMULATING CAPITAL

a. Building Human Capital:
- public spending on basic education (primary and secondary)
- limited public funding for post-secondary education in science and technology

b. Creating Effective and Secure Financial Systems:
(i) Increasing Savings
- positive real interest rates to increase savings

- strong prudential regulation, good supervision and institutional reforms
- stiff taxes on luxury consumption

(ii) Increasing Investments
- create the social infrastructure to complement private investment
- low price of capital goods by maintaining low tariffs on imported capital goods

(iii) - use mild financial repression (deposits and lending rates kept below market-clearing levels)

2 ALLOCATING CAPITAL

a. flexible labour markets (little minimum wage legislation; productivity-driven wage increases)

b. government intervention to control interest rates and to direct credit to priority activities (e.g., shipbuilding, chemicals, automobile industries in Japan and Korea)

3 PROMOTING PRODUCTIVITY

a. Absorbing Foreign Technology
- welcoming technology transfer in the form of licences, capital goods imports and foreign training

b. Promoting Specific Industries
- pursuit of sector specific industrial policies (including import protection and subsidies for capital and other imported inputs)

c. Encouraging Export Strategies
- halting of import substitution/liberalisation and heavy promotion of exports
- institutional support for exporters
- liberalized exchange rates and currency devaluations to support export growth
- manufactured export growth encouraged

- technological upgrading

4 **OTHER INNOVATIVE FEATURES**

a. political leadership adopted principle of `shared economic growth' (i.e., growth with equity) - land reforms, housing programmes, cooperatives, etc

b. private investment was the main engine of growth - responsible macroeconomic management, legal and regulatory structure hospitable to private investment; business - government deliberation councils' stable and competitive policies.

Source : Page (1995)

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