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INDUSTRIAL DEVELOPMENT STRATEGY AND POLICIES: THE EXPERIENCE OF BARBADOS, 1950-72 ^{1/}

by

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INDUSTRIAL DEVELOPMENT STRATEGY AND POLICIES IN BARBADOS

I. PRECONDITIONS FOR INDUSTRIALIZATION

A. INTRODUCTION

Barbados is probably the smallest country in the world to seriously attempt an industrial development programme; it has not been an easy task. A small nation's development problems are not smaller than a large nation's; on the contrary, small size aggravates some difficulties, and yet creditable success has been achieved.

Barbados is a small island of 166 square miles and a population of just over 240,000, and forms part of the archipelago stretching east and south from the south-eastern tip of the United States of America to the north-eastern coast of South America. It is the most easterly of the islands and was a colony of Great Britain until 1966, when Independence was achieved. Like most colonies, Barbados was expected to provide the colonial power with supplies of raw materials. In the case of Barbados the product was sugar, and sugar cane formed the basis of the economy for several hundred years; during the decades prior to Independence, however, efforts at developing an industrial sector took place. Most of the early manufacturing operations were extremely small and did little to reverse the pattern of Barbados providing markets for products manufactured in Great Britain.

For Britain the Barbados market, by itself, could not have been very significant. The total population in the 1950's was less than 200,000 and could hardly support the establishment of any viable manufacturing concerns.

Even now, the Barbados market by itself must still be considered too small for the achievement of the economies of scale that are normally available in mass production. However, new developments in regional trade groupings have already begun to ease the situation.

Not only has the numerical size of the market been a constraint, but the purchasing power of the population, both during the colonial period and since Independence, has been too low to generate the demand for the kinds of consumer products upon which most industrialisation programmes are based.

The difficulties might also be attributed to the isolation of the market, as well as to its small size. Some sociologists argue that the tendency towards fragmentation which broke up the short-lived Federation of the West Indies in 1962 have something to do with the geographical fact of the member States being islands surrounded by water. Theoretically, transportation and communications across the ocean can be as efficient as across land, but there is a separateness and an isolation that seem to be typical of island States, hence the usual connotations of the word "insular". If there is any validity in this hypothesis, it would explain why, even where attempts were made to treat the Eastern Caribbean as a single market, sales to other islands in the Caribbean always seemed to be exports to foreign countries; even now, when the Caribbean Economic Community is attempting to integrate the markets of the member States, the psychological problem relating to the distinction between the local market and regional markets seems not to have disappeared.

B. Transport

In contrast with the unfavourable situation with respect to the market, the transport and communications system in Barbados were fairly well developed even in the 1950s. The topography in Barbados is even and the land slopes gradually up from the coast to a high point near the centre of the island of just over 1,000 feet above sea level. The island is 21 miles long and 14 miles wide at its widest points. Most of the island is covered with a thick layer of coral limestone, which is a porous rock permitting easy seepage of water from the surface to the underground bedrock. For all these reasons the construction of an elaborate network of roads was relatively simple, and the system is fairly inexpensively maintained.

Internal transportation has, therefore, never been a serious problem. The population is concentrated, naturally, in the major city, Bridgetown, and its suburbs, but is fairly evenly distributed outside the urban area.

Even if it were not possible for lorry transport to take goods to every corner of the island, the distances to be travelled from even the northern tip of the island to the city at the south-west corner are so small that the consumer can readily patronize the urban shopping areas.

This already favourable situation has gradually improved over the years, until now there are over 300 miles of paved roads in the 166 square mile area of Barbados, perhaps one of the highest densities of roads per square mile anywhere.

Developing a nation-wide distribution system has meant little more than moving locally produced items through the already existing channels for distributing imported products; since the island does not possess any indigenous raw materials, other than stone and other quarried products, and limestone (suitable for the production of cement), transport difficulties cannot be said to have delayed the development of local raw materials.

C. Power and Water

Supplies of electric power and water have always been adequate; electric power is generated from fuel imported from neighbouring countries, and underground rivers tapped by wells, together with reservoirs collecting rain water, have provided sufficient of these utilities to satisfy the demand.

The industrial demand has been relatively low, not only because the numbers and size of manufacturing concerns are small, but because industries tend to be light and not require large quantities of power or water. Apart from stand-by generators to supply emergency power when the central supply breaks down, no enterprises have established their own sources of electric power.

D. Industrial Sites

No specific areas were set aside for industries in the 1950s. Applications for permission to manufacture in or near commercial areas were generally approved by the Town & Country Planning Department of Government but industries were kept out of residential areas. It was only after the establishment in 1957 of the Barbados Development Board with a mandate to promote industrial

development that specific areas for industrial estates were identified. The most important of these is near the port on new land reclaimed during construction of the Deep Water Harbour. Since then seven other areas have been identified for industrial development, and factory shells and land are leased in these serviced areas at a subsidized rental.

The sites have been carefully selected, with due consideration being given to population densities, availability of labour, transportation for workers and for goods to and from the Airport and the Deep Water Harbour, and availability of water and power. Each estate is laid out, internal roads constructed, and utilities brought to each factory lot.

F. Local Raw Materials

As mentioned earlier, no raw materials have been discovered or are likely to be discovered except for some of those required for the production of cement, and it is expected that such a plant will be established in the very near future. Of course, the raw material for the manufacture of sugar and molasses, cane, is grown on the island, but no other significant agro-based industries developed until the recent establishment of a yeast-processing factory.

Raw materials have to be imported, and have generally been subject to the rate of duty applicable to the corresponding finished product. Nevertheless, no restrictions (other than the revenue duties) were placed on their importation. These restrictions when

government had to be concerned about the balance of payments problem, it did not refuse to grant permission for the purchase of foreign currency to finance imports, and supplies were only interrupted by international events over which Barbados had no control.

F. Human Skills

The shortage of human skills at all levels was, and continues to be, a constraint on industrialisation, although the situation has materially improved within the last few years.

Skilled workers have always been in short supply. With an educational system patterned after the English Public School (which is actually a private school), very little emphasis was given to the teaching of technical skills. Fortunately, the literacy rate in Barbados has for some time now been one of the highest in the world, 94%, and industrialists have found unskilled workers, accustomed to learning as they are, relatively quick to acquire the required skill levels. No generally accepted explanation of the reason for the phenomenally high literacy rate exists, but there is little doubt that the compactness of the island, the excellent transportation and road network, the zeal of Christian missionaries of former centuries, and the desire of the early British immigrants to provide in the excellent climate of Barbados the kinds of educational opportunities that would make it unnecessary for them or their offspring to spend long periods in the bitter English cold--all these contributed to the development of an all-encompassing primary education system with still

inadequate but relatively large numbers of courses at secondary and university level.

The problem with supervisors and foremen has been more intractable with very little having been done outside of on-the-job training to develop these skills. Of course, on-the-job training is probably one of the best means of dealing with this problem, but observers of the situation have argued that certain sociological problems exist that need a radical approach. There is great reluctance on the part of newly appointed supervisors to exercise authority over their former peers. In a small society like Barbados, it is not unusual for there to be many personal ties and family relationships in almost every work group, which make it difficult for the supervisor to assert his new role or to gain acceptance of it. Ingenious methods will have to be devised to solve this problem.

A survey in 1971 indicated that 70% of practicing managers in Barbados had no formal training in management. The relative success of the commercial sector suggests that learning by experience has not been totally inadequate, but whereas commercial management practices have been passed down from generation to generation, many of these skills will be quite useless in an industrial situation. Perhaps the only professional area that has had barely adequate attention is Accounting, and such professionalism as there is has no doubt developed in response to the imperatives of income taxation. Most of these professional accountants were expatriates, as were the engineers, up to the end of the 1960s.

G. Available Financing

There was very little long-term financing available in the 1950s and 1960s for the establishment of new industrial enterprises. In 1969 the government established the Barbados Development Bank to provide such financing, but prior to that time industrialists were at the mercy of the reluctant credit of machinery suppliers and renegotiated overdraft facilities from local commercial banks. In retrospect it is difficult to imagine how the local industrial undertakings survived these difficulties; enclave industries established during the period naturally relied on funds provided through their parent companies.

As in the case of the imports of raw materials, there were no restrictions placed by government, due to shortage of foreign exchange or otherwise, on imports of machinery and equipment.

H. Entrepreneurial Initiative

The main source of private initiative in starting new manufacturing enterprises was the North-American company seeking an offshore location. In addition, some local distributors of imported products were able to persuade their suppliers to enter joint manufacturing ventures with them. In the case of the latter, local capital came from the retained earnings of existing commercial operations. The local group of industrialists has widened over the years to include small businessmen who started as craftsmen and gradually expanded into factory operations, but the number of those who are really successful is still small.

A. A Brief History

A list of the 20 major industries established since 1960 is given in Table I. The most important of these are, however, Electronics, Chemicals and Construction Materials. (Over the last 20 years the pattern has shifted towards emphasis on enclave industries. Incidentally, the writer feels (see attached paper on Human Resources and Industrial Development in Small States) that the enclave industry phase can provide a successful start to the industrialization programme of countries like Barbados. In fact, Barbados started feebly with the encouragement of local enterprises, but it is only now that the enclave phase is well launched that worthwhile progress is being made in involving local entrepreneurs in industrial development.

In spite of the several disadvantages of inviting the establishment of offshore manufacturing facilities, they provide:

- (a) Dramatic in-roads to the solution of the unemployment problem;
- (b) opportunities for on-the-job development of technical, supervisory and management skills;
- (c) proof that the nationals of the developing country can produce sophisticated articles of high quality; this confidence is soon transferred to products for local consumption; and
- (d) evidence to prospective investors in joint ventures for the production of import-substitution items that manufacturing capability exists in the country.

The usual complaints levelled against the encouragement of enclave industries are that they exploit local labour and then close their doors and transfer their operations to other developing countries. However, if before they leave they provide evidence of, and skills for, an industrial transformation, their contribution to industrial development would have been significant. They now account for a significant portion of the manufacturing output of the country.

The sugar and rum industries have been traditional in Barbados. This has been a logical consequence of the island's dependence upon sugar cane. However, sugar has been processed only to the "brown sugar" stage with further refining being done at plants in Britain, and the final product being re-exported back to the West Indies. The rum industry, however, has prospered over the years and has gained for Barbados an excellent reputation in international markets. The quantities produced have been relatively small in international terms, but the quality is reputed to be one of the highest in the world.

With a one-crop agricultural economy there has been little opportunity for the development of other agro-based industries. The concentration on sugar cane has been largely due to the fact that although Barbados has a tropical climate, its soils have been more nearly those of temperate grassland zones than those of lush tropical areas; the coral limestone produces soils that are more conducive to the growing of sugar cane and other products of the grass family than other typically tropical products.

The construction sector has been a significant one, and industries supplying it have also developed. Barbados has become a wellknown tourist resort, with the number of tourists each year nearly equalling the size of the local population. This has called for extensive construction of hotels and apartment complexes; the production of concrete and concrete blocks, the fabrication of steel, and the manufacture of furniture and other furnishings have responded to the demand.

The major industry existing at the beginning of the period under review, sugar manufacture, was geared towards supplying the overseas markets. In fact, trading arrangements have always existed for the purchase of the majority of the output of this industry by the British government. However, the other industries that were established early in the period were all oriented towards the Barbados market, with some modest attempts to sell in the Eastern Caribbean region where communication links had already been established for re-exports to Britain.

Enclave industries, naturally, shipped all of their output back to North America where they all originated.

Towards the end of the period under review two industries have had significant success in exporting their output; they are the garment and the furniture industries, but these exports have been mainly to other CARIFTA territories. The Caribbean Free Trade Area (CARIFTA) comprises the four independent countries in the Caribbean which were formerly colonies of Great Britain together with

Associated States and Colonies of Caribbean. The major provision of the agreement seems to liberalise trade among member States in items manufactured in these States. The basic provision is that items manufactured in a member State which meet one of the following three criteria may be imported duty free into any other member State:

- (a) If the value of imported materials does not exceed 50% of the final export price of the goods;
- (b) If the items are included in a basic materials list which provides that certain items imported from outside of CARIFTA would be treated as of regional origin;
- (c) If the manufacturing process meets the qualifications of a process list which defines area origin on the finished product.

This regional trade agreement is in the process of being deepened and already four independent territories in the group have formed a Common Market and Economic Community which it is expected will extend to the other members by May 1974. Even as in the case of the Free Trade Area, the Common Market and Economic Community have as one of their major goals the encouragement of manufacturing enterprises within the region, and the expansion of the local markets to a large regional market of now nearly 5 million people.

B. Statistical Indicators of Industrial Development Progress

Table II indicates the contribution made by the manufacturing sector to national output in 1960, 1970 and 1972; it shows the relative contribution of the manufacturing sector, agriculture and other sectors. Table III shows the value added in the manufacturing

sector increased by 21.5% and 13.3% in the 1960s and between 1970 and 1978 respectively. Table III shows the Balance of Industrial Trade and the values of Imports and Exports for the years 1950, 1960, 1970 and 1978.

There are no statistics classifying the manufacturing sector by size; however, very few enterprises, except the enclave industries in the late 1960s, employed as many as 100 persons, but a substantial number of the persons engaged in manufacturing were in cottage or artisan industries employing less than 10 persons; the value of their output in relation to the entire manufacturing sector is not known.

The Barbados Government has never actively participated in manufacturing operations, neither operationally, nor by means of direct equity investment. The manufacturing output of the public sector is therefore consistently practically zero, the only exception being the Government's minority share in the milk plant established in 1966.

It has been difficult to obtain comparable figures for employment by sector, since surveys have used different definitions of "manufacturing"; in earlier censuses, it included sugar milling and cottage workers engaged independently as seamstresses. However, it is estimated that employment in manufacturing rose from about 10% to 14% of the work force between 1960 and 1970; the overall unemployment rate now stands at 24.

Again, without statistics on the size of manufacturing enterprises,

it is not possible to classify the contribution to employment by size of enterprise. However it can be assumed that little, if any, of the employment was in the public sector. There are no other sources of information which would indicate industrial progress over the last 20 years. However, the Ministry of Labour has recently established a statistical unit which will begin to provide fuller data for future analyses.

III. STRATEGY OF INDUSTRIALISATION (1957-1972)

A. Selection of Priority Industries

No serious effort was made to plan a manufacturing sector in Barbados until the establishment of the Barbados Development Board in 1957. The mandate given to the Board was "to undertake, stimulate and facilitate the development of manufacturing industry in the island", but no quantitative targets were formulated.

The priorities were, however, quite clear-cut. The main problem to be solved by the industrialisation programme was the reduction of unemployment; the employment potential of any industry therefore became the prime concern of those administering the programme.

After several relatively unsuccessful years, attention was turned to the attraction of enclave industries, and by 1965 the Board had established an office in New York which undertook a sustained promotion campaign to attract American industries to set up offshore plants in Barbados. The major promotion tools were advertising and the conducting of luncheon seminars for specially invited guests representing those industries which had a high labour input and could therefore benefit from the relatively inexpensive labour in Barbados. The two major industries to be attracted by the overseas campaign were electronics and garments, and to this day, this pattern has remained.

The Development Board was expected not only to promote the establishment of new industries, but also to advise government on the granting of concessions to these industries. Techniques have

been gradually refined over the years, but even at the beginning, an assessment of the benefits to the economy was attempted. The basic yard-stick was employment generation: any industry producing for the local market which employed more than 25 persons would certainly have been considered an attractive addition to the manufacturing sector, and the only reason that would have denied such an industry the numerous incentives offered by Government would have been the prior existence of sufficient local productive capacity in that industry.

One of the major difficulties experienced by the administrators of the industrial development programme in the 1950s and early 1960s was the extreme pressure exerted on them by existing importers of the product in question. They were generally able to show that the local producer, small as he generally was, would be unable to compete in price with the imported product. A possible solution would have been to raise the duty on the imported product; the cost to consumers would then have been higher, since they were not yet inclined to favour locally produced items, and expressed a strong preference for sticking to familiar imported brands. But the Government seems to have been very reluctant to protect the local industries, either by tariffs or quantitative restrictions, and no real progress was made in the area of industrial development until offshore manufacturers began to locate on the island.

It is now generally agreed that the package of concessions offered was over-generous, a not uncommon mistake for a developing country. In addition to tax holidays and customs duty concessions, dividends

and interest...
received...
the...
Development Board...
special...
one of the...
offered factory...
under the other...
an enterprise...
a ten-year option...
of the option...

The Board received... from the Government Treasury in the form of a grant or an advance, and did not pay interest on those funds. In providing factory space, therefore, they were able to offer rates which did not include a component for interest; the rates were further subsidized by the fact that the Board, being a Government Statutory Body and therefore a non-profit organization, merely covered its costs by the rent charges.

The costs to the economy in terms of the fiscal relief and rent subsidies could be estimated, and these were weighed against the benefits in terms of the projected number of persons employed and wages and salaries paid. The weakness in the evaluation was the absence of any follow-up to determine whether or not the industry was performing at the projected level. There were provisions in the legislation for regulations which would...
public industries for projections... meant to dis-

represent the potential of the enterprise, but these were never made; the efficacy of an evaluation procedure which did not provide for review and appraisal must certainly be questioned.

B. Implementation of Industrial Projects

Government's policy statements respecting industry in its development plans during the 1950s and 1960s were of a rather general nature, expressing the commitment to the encouragement of industry and the benefits which the economy would receive from such a commitment. This pattern was quite consistent over the entire period under review.

The main thrust was certainly the establishment of enclave industries, with some modest foreign investment participation in joint ventures which produced for the local market.

C. Promoting Exports of Manufactured Goods

There were no concentrated efforts during the 1960s to make export sales of manufactured goods profitable in comparison with domestic sales. The only positive factor in this direction was the establishment in 1968 of the Caribbean Free Trade Area. This eliminated import duties, under certain conditions, on goods produced in one member State and exported to another. The local garment industry has perhaps benefited more than any other from the market expansion resulting from the integration movement. Under a scheme for the harmonization of fiscal incentives now being implemented in the Area, a reduced rate of company taxes will be paid on profits on exports to countries outside the Area. This will encourage expansion of extra-regional exports.

D. Promoting Employment

With the level of wages relatively low, no special incentives had to be given to encourage the use of labour-intensive technology, and even the wearing of duties on the imports of machinery and equipment did not turn the balance in favour of capital intensive production. Some of the un-luxury industries were deliberately encouraged to use what is now sometimes referred to as intermediate technology, which meant, in a practical sense, the shipping of older, less sophisticated equipment to Barbados when this had to be replaced in the home plant by labour saving machines.

In the overseas promotion work, only industries offering high employment potential were invited to the promotion seminars, and incentives were granted only to those industries which contributed significantly to the reduction of unemployment.

E. Location of Industries in New Centres and Rural Areas

In an island as compact as Barbados, with the population relatively evenly distributed, the problem of special under-developed areas outside of the city did not appear crucial. Nevertheless, by the establishment of industrial estates in rural areas, the Government did attempt to decentralize the location of industries. Moreover, since transportation to and from the city from the remotest parts of the island remained relatively inexpensive and took at the very most a little over an hour, the well-known urban drift has not taken place to the extent that it has done in other places. Understandably, therefore, there have been no measures adopted to promote rural industrial development except

insofar as industrial estates were provided outside of the city of Bridgetown to take jobs to the people.

F. Development of Manufacturing Technology

To facilitate the acquisition of foreign technical collaboration in the 1960s, Government was rather lenient in the granting of work permits to foreign technicians. The establishment of a Community College with Engineering Division late in the 1960s has not yet begun to have an impact on the supply of local technical personnel or on product and plant design and engineering.

G. Training of Local Labour and Management

To compensate unclass industries for having to train most of their workers from scratch, the Development Board introduced a scheme whereby they were refunded a specific portion of the wages paid to unskilled workers during their initial training period. They were compensated for all of the workers they hired and trained during the specified period, whether or not these workers remained with them after their first year of operation; this device, by defraying part of the investors' training costs, encouraged them to engage in on-the-job training on a larger scale than would otherwise have taken place.

A more direct effort to encourage enterprises to train indigenous technicians and managers was made through the administration of the granting of work permits to foreigners. These permits were granted only for limited periods, generally up to a maximum of three years, and one of the conditions for renewal or for the issue of a new permit to another expatriate in the same position.

was that the enterprise should undertake to hire and train a local person to take over the job. Some of the efforts to comply with this requirement have not been judged sincere, since various ingenious reasons have frequently been presented for the failure to fill positions with Barbadians.

In 1969, discussions were begun on the establishment of an Institute of Management in Barbados for the training of local managers. By agreeing to match the subscriptions of the private sector, Government undertook to subsidize such training. The Institute is now functioning successfully.

IV. INDUSTRIAL POLICIES AND MEASURES 1959-1972

The public sector has not so far become directly involved in industrial projects. The only case of such involvement is the Government's minority shareholding in the only milk manufacturing plant on the island.

Tariffs have been used to promote industrial development within the context of the Caribbean Free Trade Area, by the waiving of duties, under certain conditions of origin (mentioned earlier), on products manufactured in the Area. The 50% value-added criterion for qualifying for duty-free treatment has encouraged some manufacturers in the Area to deepen their manufacturing processes, but the greatest stimulus to industry has been in giving exports within the Area a cost advantage over imports from outside. A Common External Tariff was under consideration in 1972 which would generally raise tariffs against extra-regional imports, lending a further element of protection to local industry. Within Barbados, the tariff was used to provide an incentive for some new industries, especially the garment industry; the duty on raw materials and components imported by firms with a certain minimum number of employees was waived, giving the new industry a better competitive position.

All pioneer or approved industries were granted duty-free concessions on construction materials, machinery and equipment, but only enclave industries were automatically entitled to these concessions on component parts and raw materials; where these concessions have been awarded to other companies which produce for

the local market, which has mainly been used to the local producer in the same product. Later, the same measures in other CARIFTA countries, which have generally been more generous than Barbados in granting duty-free concessions on raw materials. Production in the islands has generally increased, so that duty concessions on machinery and equipment, components parts and raw materials have not affected any local production of these items. The device of increasing duties on imported finished products was never used.

Those companies which qualified for the package of incentives by reason of their contribution to the economy, judged especially in terms of their employment potential, were given the tax holiday of 10 years; all other enterprises paid income tax at the normal rate of about 50%. There was no flexibility in the number of years' holiday granted; an industry either qualified for a full holiday or did not qualify at all. Enclosed industries had an even longer period of relief; after their tax holiday, they were required to pay company tax only at about 60% of the normal rate.

In Barbados, a company pays income tax on behalf of its shareholders in the sense that the shareholder's personal tax liability is credited with the tax paid by his company on income distributed. A shareholder in a company enjoying a tax holiday also benefited by tax relief on his dividends if he was resident in Barbados or if he did not have to pay tax on the dividend in the country of his residence.

The importance of this rather generous tax relief lies in the

writer's view, foreign investors have come to expect tax holidays from developing countries and would probably pass up an opportunity that did not make any concessions in this area; however, the typical overseas investor is more likely to be concerned about the factors that lower the cost of production than those that affect profits after taxes. On the other hand, the tax holiday could be a very attractive concession to the resident investor, since the company tax holiday is passed on to the shareholder in the form of tax-free dividends. Unfortunately, however, inexperienced local industrialists have had some difficulty in running profitable operations, without which a tax holiday is entirely useless; for better to provide shorter tax holidays together with cost-reducing incentives.

The scheme for the harmonization of fiscal incentives in the CARIPTA area now provides for tax relief based on value added locally--the higher the local value added, the longer the tax holiday, and the qualifying enterprise is also locally entitled to duty-free building materials, machinery, equipment, and raw materials and components, this not only reduces capital requirements and thereby offers a better rate of return on investment, but it also lowers the cost of production, increasing the rate of return from another direction. Tax holidays are shorter under the new scheme, but other concessions are more meaningful.

Together with these fiscal incentives, the area also offers subsidized factory space and training grants, and permits full repatriation of profits and dividend payments. However, its social and economic stability, its excellent raw and labour

relations, and its financial institutions and semi-organized work force are considered to be important attributes and incentives to both local and foreign investment.

Barbados has avoided enacting legislation specifically and obviously designed to give foreign investors an advantage over the local investor. There are two sets of legislation offering concessions for manufacturing industry, but these differentiate between companies producing exclusively for markets outside the CARIFTA area and those which sell all or part of their output in the area; strictly speaking, both local and foreign investors can take advantage of either of the sets of provisions, although only enclave industries have so far taken advantage of the specially generous concessions offered for manufacturing products for sale outside the CARIFTA area; foreign investors have participated with local investors in producing for the local and CARIFTA markets.

Within the last five to seven years the level of investment and the generation of employment in manufacturing enterprises has been highly satisfactory in terms of the modest goals of a small economy; the target was 500 jobs a year in 1966 and 1,000 jobs a year in 1962. The major constraints have been the size of the local market, and the availability of technical and managerial skills. These problems are being solved. The local market has now been expanded because of CARIFTA and the Caribbean Common Market to a protected market of nearly five million people, and Barbados is capturing its reasonable share; the new Institute of Management and Productivity has already graduated classes in most of the functional areas of management, and provides consulting

services to its members; the Community College's Division of Commerce is well advanced, and it will soon be awarding diplomas to the first graduates of its Engineering Division. With the emphasis now being given to local industry and local investors, the manufacturing sector is beginning to look vigorous; it is expected to provide up to 1500 new jobs each year by 1976 when Government projects that full employment will be reached.

V. INSTITUTIONS AND INDUSTRIAL DEVELOPMENT 1950-1962

From time to time, the office of the Prime Minister or the Ministry of Trade has been responsible for formulating the government's broad strategy of industrialization. Cabinet-approved four-year development plans were based on proposals submitted by Ministries and coordinated by the Economic Planning Unit. The net had authority to grant concessions under the incentives legislation, but it was, in fact, the appropriate Minister who by delegation, made all such decisions on the recommendation of the Government agency responsible for promotion of industrial development, the Barbados Development Board. The Board was replaced in 1969 by the Barbados Industrial Development Corporation, when its loan functions were transferred to the newly-created Barbados Development Bank. The agency's members were appointed by Cabinet and were under direct authority of the appropriate Minister, but although he delegated to them the execution of industrial development policies, the making of those policies remained largely a matter of Cabinet initiative as exercised by the Minister in question. The actual promotion work was carried out by the staff of one division of the agency; another division constructed factory buildings for sale or lease to investors. Where Government ministries and departments were involved, as in the case of the granting of work permits by the Ministry of Home Affairs, or the registering of capital with the Ministry of Finance for foreign exchange purposes, the agency acted as a go-between. The Ministry of Labour began to provide a recruitment service for investors in the latter part of the period under review, but investors tended to deal directly with the Youth Employment and

production and export of local products.

The Industrial Development Corporation remains the only body engaged in the promotion of manufacturing investment, both domestic and foreign, but it also provides advice on technical issues such as product design and manufacturing processes; such assistance can be obtained through the Caribbean Industrial Research Institute located in the neighbouring island of Trinidad.

In a country as small as Barbados, there is a distinct advantage in the Government's present policy of assigning the overall responsibility for promoting and managing all processes of industrialisation to a single agency, the Barbados Industrial Development Corporation. It would seem this agency does have the power and the influence to effectively execute its mandate, and because it reports direct to a Minister, it is in a position to obtain the cooperation of other Government ministries and departments whose activities impinge on its work.

The rapid success of Barbados in developing an industrial sector has to be considered remarkable in view of the absence of raw materials and the extremely small size of the local market; it is clear that substantial progress has been made of which the country can be justly proud. The available statistics do not reflect the true picture, because the changing definition of manufacturing in successive censuses and censuses makes it difficult for comparisons to be made; however, approximately 15% of the work force are now engaged in manufacturing, taking about the same percentage contribution to the national G.D.P.

Just fifteen years ago the only industries existing were sugar and rum and a few others such as bakeries, printeries, and so on. The achievement becomes even more spectacular when one realizes the extent of the decline in employment in agriculture and sugar manufacturing and the dreadful consequences had the displaced workers not been absorbed in manufacturing and in tourism. There is much left to be done, but new institutions have been created which, with the relatively mature Industrial Development Corporation, will move on to the next important stage of the programme, that of export promotion. If it is successful, Barbados' industrial sector could soon be making a major contribution to full employment in the economy.

TABLE I - MAJOR LEISURES ESTABLISHMENT SINCE 1950

Company	Products	Date established	Capital Invested (1950)	Annual Sales (1950)	Cost of Imported Supplies (1950)	Tariff Exemption per cent
			Local Currency	Local Currency	Local Currency	
Bliss, Knitting & Spinning Co.	Underwear, Sport Shirts	1950	\$ 300,000	\$ 1,100,000	\$ 1,000,000	100%
Caribbean Confectionery Co. Ltd.	Sugar Confectionery, Baking Powder, Ice-cream Conings	1950	246,000	600,000	20,000	100%
Caribbean American Manufacturing Ltd.	Animal Feeds	1956	300,000	1,000,000	1,000,000	100%
Marl Oil (P.Occ.) Ltd.	Gasolines, Kerosenes, Diesel Fuels, Fuel Oils, Asphalt	1956	1,115,000	1,029,000	5,500,000	100%
Walker Garments Ltd.	Suits for Gents, Boys & Ladies	1960	150,000	345,000	5,000,000	100%
Danks Brewery Ltd.	Beer, Ale, Stout	1961	2,000,000	3,400,000	16,000,000	100%
Husbands Wrought Iron & Engineering Works Ltd.	Wrought Iron Furniture	1961	186,500	311,600	100,240	100%
Tropical Battery Co.	Batteries (Lead-acid accumulators)	1962	160,000	316,000	196,000	100%

Berger Paints

(Bidos.) Ltd.

Cont'd./.....

TABLE I (Contd.)

<u>Company</u>	<u>Products</u>	<u>Date established</u>	<u>Capital Invested (1970)</u> Local Currency	<u>Annual Sales (1970)</u> Local Currency	<u>Cost of Imported Supplies (1970)</u> Local Currency	<u>Tariff Protection</u> Per cent
Berger Paints (Belcos.) Ltd.	Paints, Enamels & Varnishes	1964	\$ 763,000	\$ 1,700,000	\$ 900,000	100
Cavalier Ltd.	Men's, Women's & Children's Slacks and Shorts	1964	140,000	774,000	100,000	100
Leeds & Co. Ltd.	Children's & Women's Garments, Men's & Boys' Pyjamas & Underwear	1964	300,000	1,314,000	600,000	100
Orar Ltd.	Aluminium Furniture & Windows	1964	350,000	700,000	200,000	100
N.I. Products (Indor.) Ltd.	Phenylethyl Benzene	1967	161,000	800,000	100,000	100
Marie Barnett Factory Ltd.	Garments	1961	100,000	600,000	100,000	100
Allied Metals Ltd.	Costume Jewelry & Novelties	1966	250,000	170,000	150,000	100
Pidos. Plast. Industries Ltd.		1966	1,000,000	5,576,000	1,500,000	100
Genie Cement Factory	Garments	1966	500,000	367,000	200,000	100
Eastern Industries Ltd.	Cont'd. /					

TABLE I (Contd.)

<u>Company</u>	<u>Products</u>	<u>Date established</u>	<u>Capital Invested (1970)</u>	<u>Local Capital</u>	<u>Local Capital (%)</u>	<u>Local Sales (1970)</u>	<u>Cost of Imports (1970)</u>	<u>Tariff</u>
Industrialestrade Ltd.	Bleaches, Detergents, Plastic Bottles & Articles	66	\$ 250,000	\$ 100,000	40%	\$ 100,000	\$ 100,000	0%
Industrialestrade Ltd.	Metal Furniture, Metal Radios	60	\$ 100,000	\$ 100,000	100%	\$ 100,000	\$ 100,000	0%
Industrialestrade Ltd.	Knitwear, Trainers	60	\$ 40,000	\$ 40,000	100%	\$ 40,000	\$ 40,000	0%
Industrialestrade Ltd.	Electronic Components	66	\$ 12,000	\$ 12,000	100%	\$ 12,000	\$ 12,000	0%
Industrialestrade Ltd.	Knitted Quilt Slips, Brasieres & Underwear	60	\$ 100,000	\$ 100,000	100%	\$ 100,000	\$ 100,000	0%
Industrialestrade Ltd.	Spinning Machine Parts, Electrical Equip-ment	66	\$ 100,000	\$ 100,000	100%	\$ 100,000	\$ 100,000	0%
Industrialestrade Ltd.	Radio, Television, Other Electronic Components	66	\$ 100,000	\$ 100,000	100%	\$ 100,000	\$ 100,000	0%
Industrialestrade Ltd.	Polyurethane Foam Products	67	\$ 210,000	\$ 210,000	100%	\$ 210,000	\$ 210,000	0%

Notes:-
 (a) 1970 rate of tariff
 (b) IDC estimate
 (c) Not applicable (Enclave Industry)

TABLE II. COMPOSITION OF GROSS DOMESTIC PRODUCT AT FACTORY COST

LOCAL CURRENCY AT 1965 PRICES*

	<u>1960</u>	<u>1967</u>	<u>1968</u>	<u>1967-71</u>	<u>1970-71</u>
Agriculture	20,992,000	19,866,500	17,983,000	-4.1%	1.7%
Mining & Manufacturing	12,200,000	20,751,000	27,852,000	71.6%	41.7%
Other Sectors	90,964,000	111,966,600	172,281,000	46.7%	21.6%
TOTAL G.D.P.	<u>145,156,000</u>	<u>152,584,100</u>	<u>218,116,000</u>	<u>26.3%</u>	<u>23.6%</u>
G.D.P. (U.S.\$)	76,531,415	96,762,223	119,731,000		
Population (millions)	.232	.241	.241		
G.D.P. per capita (U.S.\$)	329	401	496		

*In converting the G.D.P. for the respective years to 1965 prices it was assumed that the annual rate of inflation between 1960 and 1967 was 4%; and that between 1967 and 1970 was 10%.

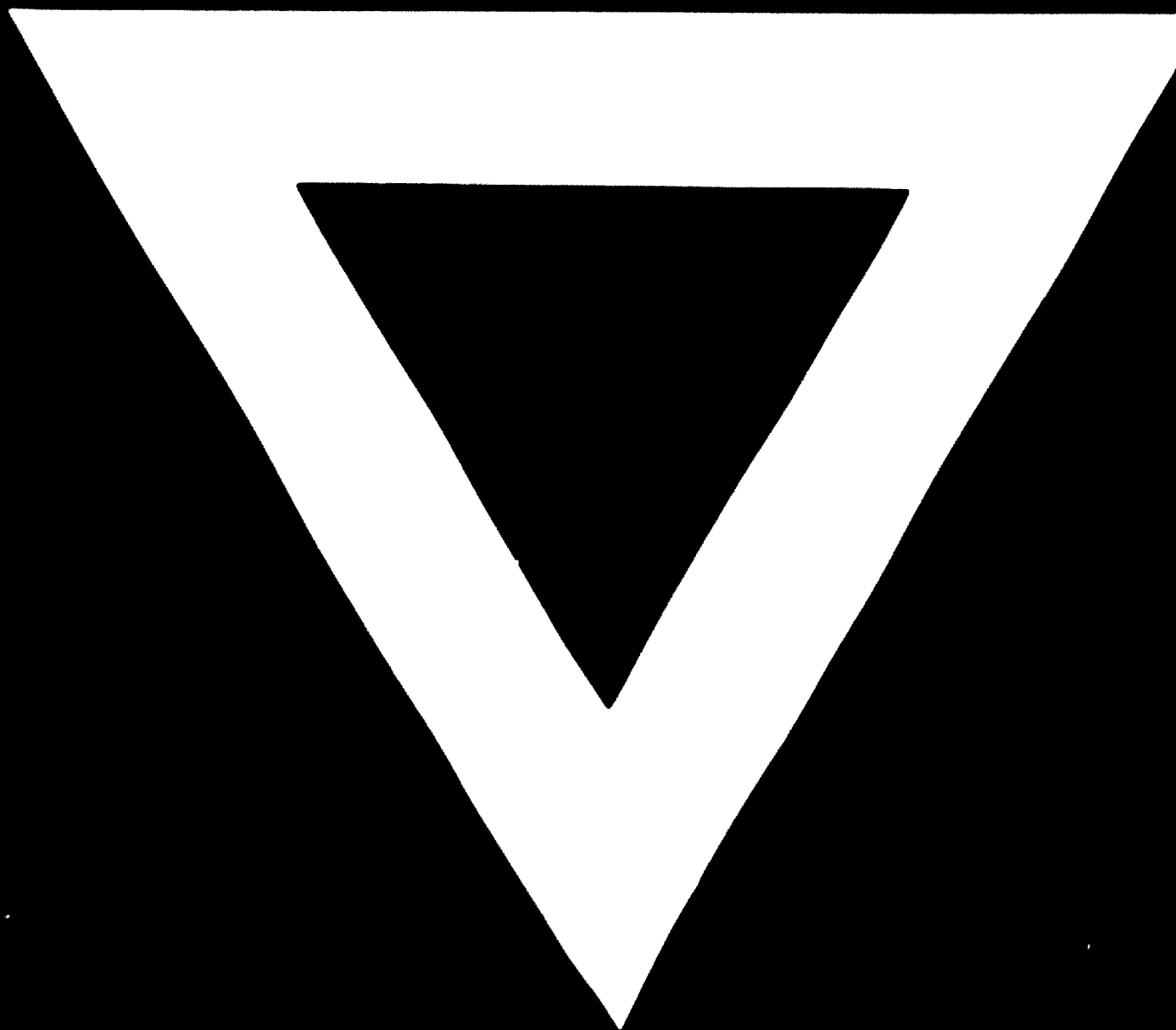
TABLE 1.1. BALANCE OF TRADE (AT) (Millions)

DATA FROM 1958-1961 (Millions)

	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>
Exports	15.9	4.7	7.1	84.4
Imports	<u>30.7</u>	<u>8.7</u>	<u>24.2</u>	<u>170.1</u>
Trade Balance	<u>-14.8</u>	<u>-4.0</u>	<u>-17.1</u>	<u>-85.7</u>
Exports of Manufactured Goods	.	1.	.	16.7
Imports of Manufactured Goods	29.3	7.6	23.7	89.2

Exchange rate from US \$ 100 = 100.00





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