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INDUSTRIAL DEVELOPMENT REVIEW SERIES

THE CARIBBEAN REGION

Jamaica, Trinidad and Tobago, Guyana, Barbados,
Netherlands Antilles, Bahamas, Belize, Bermuda,
St. Lucia, St. Vincent and the Grenadines, Grenada,
Antigua and Barbuda, Dominica, St. Christopher and Nevis,
Cayman Islands, British Virgin Islands,
Montserrat, Turks and Caicos Islands, and Anguilla

Prepared by the
Regional and Country Studies Branch

V.87-89269

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PREFACE

This Industrial Development Review is one of a series of country studies prepared by the Regional and Country Studies Branch of the United Nations Industrial Development Organization (UNIDO).

The Reviews present brief factual and analytical surveys of industrial development in developing countries. Such industry-specific Reviews are in demand for a variety of purposes: to provide an information service to relevant sections within UNIDO and other international organizations and aid agencies concerned with technical assistance to industry; to be used as a reference source for financial organizations, public and private industrial enterprises, and economic research institutes in developed and developing countries; and to serve as a handy, useful information source for policy-makers in developing countries. Although the Reviews do not represent in-depth industrial surveys, they focus exclusively on industry and present the information on the entire spectrum of the industrial development process in the countries concerned in a condensed and yet comprehensive form.

The Reviews draw primarily on information and material available at UNIDO headquarters from national and international sources as well as data contained in the UNIDO data base. Generally, specific field surveys are not undertaken. The presentation of up-to-date information on sub-sectoral manufacturing trends are usually constrained by incomplete national data on the industrial sector. To supplement efforts under way in UNIDO to improve the data base and to monitor industrial progress and changes on a regular basis, it is hoped that the appropriate national authorities and institutions in the respective countries and other readers will provide relevant comments and information. Such response will greatly assist in updating the Reviews.

This Review on the Caribbean region was prepared on the basis of information available at UNIDO headquarters in early 1987. The island and littoral countries covered by this Regional Review have been selected primarily on the basis of their membership of two Caribbean regional organizations: the Caribbean Community (CARICOM) and the Organiztion of Eastern Caribbean States (OECS). A Review of Cuba has already been issued, while Haiti and the Dominican Republic are being considered for separate Reviews under the Industrial Development Review Series.

Following an overview of industrial development in the Caribbean, the 19 selected countries are dealt with in four groups: the first covering the four larger and generally more advanced developing countries; the second covering three other islands plus the littoral state of Belize; the third covering six member states of the OECS; and the final group covering five micro-states, including Montserrat, the smallest member of the OECS. Each island country is surveyed to reveal the extent of progress with industrial development todate, with a focus on manufacturing problems and prospects, and the role of technical co-operation in industrial development. Strategies and policies for industrial development are set out together with details of industrial

institutions, and information is presented on the resource base to provide an indication of the industrial potential. In some of the smaller islands, this pattern could not be followed exhaustively, either because industrial development to date is so limited, or else because industrial data was not readily available. In such cases the information provided is of a more general nature and is useful for the purpose of comparison only. In general, project- and firm-specific information contained in this Review are investment-oriented. The Review contains detailed basic indicators for the four major and more advanced countries. In view of the size and complexity of the manufacturing sector in the larger states of the Caribbean region, separate Reviews of the respective countries may be envisaged at a later stage under the Industrial Development Review Series. The Review also contains graphic presentation of manufacturing trends as well as statistical and other appendices.

It should be noted that the Reviews are not official statements of intention or policy by governments nor do the views and comments contained therein necessarily reflect those of the respective governments.

CONTENTS

CONTENTS
(continued)

CONTENTS
(continued)

CONTENTS
(continued)

LIST OF TABLES

LIST OF TABLES
(continued)

EXPLANATORY NOTES

Regional classifications, industrial classifications, trade classifications and symbols used in the statistical tables of this report, unless otherwise indicated, follow those adopted in the United Nations Statistical Yearbook.

Dates divided by a slash (1984/85) indicate a crop year or a financial year. Dates divided by a hyphen (1984-1985) indicate the full period, including the beginning and end years.

In tables:

Three dots (...) indicate that data are not available or are not separately reported;
A dash (-) indicates that the amount is nil or negligible;
A blank indicates that the item is not applicable;
One dot (.) indicates that there is insufficient data from which to calculate the figure;

Totals may not add precisely because of rounding.

Basic indicators and graphical illustrations of manufacturing trends contained in this Review are based on data sourced from the UNIDO data base, international organizations, commercial and national sources.

The following abbreviations are used in this document:

BD $	Barbadian dollar
b/d	barrels per day
BR $	Bermuda dollar
BZ $	Belizean dollar
CARICOM	Caribbean Community
CBI	Caribbean Basin Initiative
CDB	Caribbean Development Bank
CI$	Cayman Islands dollar
CIDA	Canadian International Development Agency
EC $	East Caribbean dollar
ECCM	East Caribbean Common Market
EEC	European Economic Community
G$	Guyanese dollar
GDP	gross domestic product
GNP	gross national product
IMF	International Monetary Fund
J$	Jamaican dollar
MVA	manufacturing value added
NAf	Netherlands Antilles guilder
OECS	Organization of Eastern Caribbean States
ton	short/long ton
tonne	metric tonne
TT$	Trinidad and Tobago dollar
UNDP	United Nations Development Programme
US $	United States dollar
WIAS	West Indies Associated States

LIST OF ABBREVIATIONS FOR FOREIGN CO-OPERATION

AFM	Access to foreign markets
CTR	Compensation trade
EQS	Equipment supply
EQY	Equity participation
JVE	Joint venture
LIC	Licencing
LNS	Loans
MAX	Management expertise
MKX	Marketing expertise
RMT	Raw material supply
SCT	Subcontracting
SOT	Sale of technology
TEX	Technical expertise
TKP	Turnkey project
TRX	Training expertise

1

REGIONAL OVERVIEW OF INDUSTRIAL DEVELOPMENT

1. REGIONAL OVERVIEW OF INDUSTRIAL DEVELOPMENT

1.1 Introduction

The Caribbean Region contains the largest concentration of small developing countries in the world. The island countries of the Caribbean together with the littoral countries of Belize and Guyana comprise a heterogeneous group bound by historical and modern political associations to make up a major part of the Caribbean Basin. The Caribbean Basin itself encompasses 33 countries within and around the Caribbean Sea; the 19 covered by this Regional Review are distinguished chiefly by their association within the Caribbean Community (CARICOM) and The Organization of Eastern Caribbean States (OECS). The Review therefore excludes Cuba, Haiti and the Dominican Republic.

The four larger countries of Jamaica, Trinidad and Tobago, Guyana, and Barbados themselves are of a size and diversity to merit individual examination. Elsewhere three sub-groups of smaller states are commonly distinguished. The Windward Islands and their dependencies lie in the Eastern Caribbean, extending from the Venezuelan coast northwards to Dominica, and including some of the larger islands of the OECS - Grenada, St. Vincent and St. Lucia, as well as Barbados. The Leeward Islands - Antigua, Barbuda, St. Kitts-Nevis - lie in the north-east Caribbean between the Virgin Islands and Guadeloupe, interspersed with French and Dutch islands. Outside the main geographic groupings are three island countries, The Bahamas, The Netherlands Antillos, and Bermuda, which, together with Belize in Central America, have tended to be less closely integrated into the established regional groupings. In addition five of the island states are properly to be considered as micro-states - Anguilla, British Virgin Islands, Cayman Islands, Montserrat, and The Turks and Caicos Islands; their situation and character are so specialized as to merit recognition as a distinctive sub-grouping.

While facing similar, and inter-related, problems, the Caribbean countries themselves display surprising diversity of form and character. Their resource bases, particularly those of the island countries, are all rather limited in diversity and scale, and some are very meagre indeed. As political entities, they have evolved out of inter-connected histories with many overlapping and sometimes conflicting interests, and consequently reveal different approaches to development to date. Nevertheless, geopolitically and economically, their proximity to the North American continent, and to the USA in particular, has been a major determining factor in development for almost all of them to date.

1.2 Recent economic trends

Over the last ten years, almost all these economies have grown in real terms, as has the average income per capita. Table 1.1 shows that only Guyana has a GDP per capita of under US$600; others have a GDP per capita in the range US$858 to US$17,800; while six - The Bahamas, Barbados, Cayman Islands, Netherlands Antilles, and Trinidad and Tobago - have per capita income levels ranging between US$4,894 and US$12,789, and one, Bermuda, has a per capita income of over US$17,800. This of course is due to the presence of many expatriate individuals, banks and other companies, including hotels, which inflate the income figures.

Table 1.1. Inter-country comparison of size and growth of GDP, 1982-85, 1985 and 1986

Country grouping	GDP at current prices,1985 (million US$)	GDP per capita at current prices, 1985 (US$)	GDP growth rate (per cent) 1982-85	1985	1986[f/]
Jamaica	1,983.4	858	0.1	-5.0	2.0
Trinidad & Tobago	7,723.1	6,538	5.5	-2.9	-6.4
Guyana	461.9	584	4.6	0.9	0.3
Barbados	1,236.8	4,894	0.2	0.3	5.0
Netherlands Antilles	1,370.0[b/]	5,415[b/]	-1.6[d/]	...	...
The Bahamas	1,814.6	7,822	5.0	3.0	4.5
Belize	184.7	1,110	0.2	2.7	2.3
Bermuda[a/]	10,200.0[f/]	17,800[f/]	0.9	-2.3	0.7
OECS:					
St. Lucia	170.3	1,245	4.5	5.8	6.0
St. Vincent and The Grenadines	102.0	933	4.2	3.1	7.0
Grenada	96.0	961	0.6	3.7	4.3
Dominica	88.2	1,132	3.2	3.0	...
Antigua and Barbuda	180.2	2,244	4.9	6.7	6.0
St. Kitts-Nevis	67.3	1,469	3.5	1.0	3.0
Montserrat[e/]					
MICRO-STATES:					
Cayman Islands[a/]	...	12,789	3.8	4.9	...
Montserrat[a/]	37.1	3,118	1.4	4.6	5.1
British Virgin Islands[a/]	84.5	7,101	3.0	0.6	...
Turks & Caicos Islands[a/]	28.1[c/]	...	...	...	...
Anguilla[a/]	...	...	...	...	...

Source: Caribbean Development Bank, Annual Report 1986.

a/ Dependent territory.

b/ 1982.

c/ 1984.

d/ 1981-85.

e/ See below under micro-states.

f/ Preliminary estimate.

The recent economic performance of all these Caribbean countries has revealed their continuing sensitivity to regional and international developments. The slowing down of economic growth in North America and Europe in 1984 was mirrored in the Caribbean economies in the following year. In particular the larger and generally more developed economies of Jamaica, Trinidad and Tobago and Guyana all suffered from their marked dependence on one or more primary commodities, the world markets for which suffered from depressed demand. In contrast the smaller, less developed economies fared rather better, as expansion of tourism and a generally high level of public sector investment fostered continued growth. This trend continued into 1986, but the pattern of growth remained uneven, both between countries and between sectors. Tourism, construction and banana production led GDP growth in the region, while manufacturing activity tended to rebound in Barbados, Trinidad and Tobago and Monserrat. In recent years governments in the region have been almost all faced with increasing problems of economic adjustment; common priorities in development policies have been to increase production and investment targets, to redress deteriorating balance of payments situations, and to improve fiscal performance to help reduce public sector deficits. However, most countries reported improved fiscal performance during 1986, which was partly aided by the fall in oil prices, and all countries seemed to be coming to grips with the need to develop efficient government machinery in pursuit of cautious fiscal policies.

In the Caribbean as a whole, tourism continues to be a lead sector; traditional exports, on the other hand, have been declining for some time. The Caribbean economies exibit a heavy import orientation, so that a key factor in their growth is the availability of foreign exchange, whether from export earnings or from capital or aid inflows. Table 1.2 summarizes the trading position of the selected countries and the extent of their debt-servicing obligations in 1985. In the very small territories, especially the micro-states and those with some continuing colonial associations, grants and concessionary loans continue to play a major role in maintaining a high level of public sector investment in the absence of significant domestic savings. A further major policy objective throughout the Caribbean has been to diversify production and exports, in order to strengthen the productive base in each country.

In 1985 and 1986 rates of inflation in the region continued to decline, partly as a result of declining inflation amongst the region's major trading partners, and partly through increased stability in the region's currencies concommitant with a fall in demand for domestic and imported goods. The decline in the rate of growth of imports reflected both a slowing down of domestic economic activities and the adoption of policies, which were designed to reduce foreign exchange expenditures. Intra-regional trade has fallen markedly with the collapse of the CARICOM trade credit facility in 1983 and the subsequent imposition of import restraints in the region's key markets: for a number of countries; these losses of exports to neighbouring markets have to some extent offset the gains in extra-regional trade achieved during the year. Preliminary indications are that intra-regional imports which declined by 12.5 per cent in 1983, by 10.9 per cent in 1984, and by 3.3 per cent in 1985, have again declined in 1986. The region's overall balance of payments situation has remained weak, being affected by low prices and weak demand for major primary export commodities, declining intra-regional exports and substantial increases in interest payments on external debt. Growing receipts from tourism have only partially offset the massive interest payments on the external public debt accumulated during the 1970s.

Table 1.2. Inter-country comparison of selected economic and trade indicators, 1985

Country	Exports of goods and non-factor services (US $ mn)	Imports of goods and non-factor services[c/] (US $ mn)	Tourist income (US $ mn)	Current account balance (US $ mn)	Ratio of debt service to exports of goods and non-factor services (percentage)
Jamaica	1,093.2	1,643.5	406.8	-74.7	27.5
Trinidad & Tobago	2,646.2	2,634.6	197.3	-63.5	6.2
Guyana	244.8	301.1	...	-152.4	10.2
Barbados	799.0	781.0	309.0	40.5	3.8
Netherlands Antilles[a/]	...	...	...	...	...
The Bahamas	1,397.2	1,194.0	870.0	-40.6	...
Belize	131.1	143.3	10.7	6.2	11.8
Bermuda[a/]	...	...	...	...	...
OECS:					
St. Lucia	93.3	114.5	55.7	-20.6	2.7
St. Vincent & The Grenadines	79.7	83.2	23.0	-1.8	2.8
Grenada	51.6	57.1	24.4	-9.4	20.3
Dominica	34.4	57.8	4.5	-19.0	16.0
Antigua and Barbuda	123.9	150.7	83.6	-11.4	8.9
St. Kitts-Nevis	48.5	46.9	31.0	-21.6	3.9
Montserrat[b/]					
MICRO-STATES:					
Cayman Islands[a/]	154.4	...	73.3	...	...
Montserrat[a/]	4.3	18.3	7.7	-6.5	9.3
British Virgin Islands[a/]	100.5	...	91.7	-12.5	0.4
Turks & Caicos Islands[a/]	...	...	12.2	...	...
Anguilla[a/]	...	...	8.9	...	...

Source: Caribbean Development Bank, Annual Report 1986.

a/ Dependent territory.

b/ See below under micro-states.

c/ 1984.

In those economies dominated by their primary commodity exports, decline in world demand and prevailing market prices for these commodities brought about a continued deterioration in the external financial position; shortages of foreign exchange in turn constrained imports of essential inputs for agriculture, manufacturing, construction and public sector investment in infrastructure. With a few exceptions in 1986 manufacturing output fell in almost all economies because of depressed domestic and regional demand, while exports of manufactures were affected by falling demand for garments, furniture and electronic components in the major developed country markets, and agricultural exports to Europe and North America awaited the recovery of the industrial economies. The tourism-based economies, particularly some of the smaller islands, recorded significant improvements in the number of visitors and hence achieved further growth.1/

The overall sectoral performance viewed in the context of external environment in 1986 reveal mixed trends. Although sugar prices on the world market improved in 1986, they remained unremunerative. In the wake of US protectionist sugar policy, sugar producers in the Caribbean region lost 44 per cent of that market. Apart from reduced access to the US markets and the forecast of a further rise in alternative sweetners, current stocks of sugar are too high to warrant a significant rise in prices. During 1986 banana production rose strongly in the Windward Islands, Jamaica and Belize. Banana producers are encouraged by the increase in prices on the world market. There are indications that the region could offer 400,000 tonnes to Britain by 1990, about 60,000 tonnes more than the average consumption in the U.K. Bauxite production in the region increased by 3.8 million tonnes in 1986. Although prices on the London Metal Exchange rose slightly, the outlook for 1987 remains bleak. Following the slump in the price of oil the oil-based economies in the region experience curbs on both refining and exploratory drilling activities, while low prices seem to stimulate demand for greater volume of petroleum products in oil-importing countries. There are indications that tourism will continue to expand and give an impetus to the construction sector in 1987 and 1988.

1.3 Socio-economic features

In terms of area and population size, which are detailed in Table 1.3, Jamaica, Trinidad and Tobago, and Guyana stand out clearly from the others with populations of just over 2 million, just over 1 million, and 0.79 million respectively. Three out of four of these countries - Jamaica, Trinidad and Tobago, and Barbados - have much larger economies and higher incomes per capita than the average in the Caribbean; only Guyana is relatively less developed for its size. Four other countries - The Bahamas, Barbados, Belize, and The Netherlands Antilles - have population in excess of 150,000 and with the exception of Belize, all show significant signs of progress in the size and income per capita produced by their economies, led by Bermuda with its exceptional offshore economy. Seven countries - six OECS states plus Bermuda - have populations in the range 45,000 to 130,000; of these only Antigua has achieved significantly better than average progress in economic indicators.

1/ The Barbados-based Caribbean Tourism Research and Development Centre (CTRC) reported a 5 per cent increase in tourist arrivals in the Caribbean region in 1986, the largest increase since 1981. The Caribbean was favoured as a tourist destination in 1986 as a result of the appreciation of European currencies against the US dollar. Arrivals from Europe increased by over 17 per cent in 1986.

Table 1.3. Area and population characteristics of selected Caribbean countries, 1982-85 and 1985

Country	Area (sq. km)	Mid-year Population 1985 ('000)	Annual rate of populaton increase 1982-85 (Per cent)	Average labour force 1985 ('000)	Average unemployment rate 1985 (Per cent)
Jamaica	11,242	2,311.1	1.7	1,042.0	25.0
Trinidad & Tobago	5,128	1,181.2	1.5	471.0	15.3
Guyana	214,970	790.8	0.8	240.0[c]	15.0[c]
Barbados	431	252.7	0.3	113.2	18.7
Netherlands Antilles[a]	993	225.0	...	15.9[c]	25.0[c]
The Bahamas	13,942	232.0	1.6	120.0[c]	20.0[c]
Belize	22,960	166.4	2.7	43.7[c]	14.0[c]
Bermuda[a]	53	54.0	...	32.0[c]	2.0[c]
OECS:					
St. Lucia	616	136.8	2.0	45.5[c]	22.0[c]
St. Vincent & The Grenadines	388	109.3	1.3	...	40.0[c]
Grenada	345	100.3	3.2	38.0[c]	28.0[c]
Dominica	750	77.9	1.4	26.0[c]	13.0[c]
Antigua and Barbuda	440	80.3	1.3	31.5[c]	21.0[c]
St. Kitts-Nevis	269	45.6	0.7	23.0[c]	30.0[d]
Montserrat[b]					
MICRO-STATES:					
Cayman Islands[a]	260	19.9	3.5	8.2[c]	2.0[c]
Montserrat[a]	102	11.9	0.6	5.3	5.3
British Virgin Islands[a]	150	11.9	1.6	4.9[c]	3.9[c]
Turks & Caicos Islands[a]	417	8.6	3.3	2.9[c]	25.0[c]
Anguilla[a]	91	6.7	0.5	2.8	30.0

Source: Caribbean Development Bank, Annual Report 1986.

[a] Dependent territory. [b] See below under micro-states. [c] Estimate for 1984. [d] Seasonal.

The five micro-states have populations of less than 20,000. Of these almost all have achieved very much better progress than the OECS members, largely through their specialized offshore economies; only Anguilla has yet to break out of its traditional, resource-based pattern of development.

Unemployment continues to be one of the most serious social problems within the region with ten countries recording unemployment levels in excess of 20 per cent and three in excess of 30 per cent. As a result of reduced output in primary sectors, unemployment has recently increased; additional

jobs were lost in the manufacturing and public sectors as demand fell and/or public expenditure was reduced. In a small number of countries - Grenada, Guyana and Jamaica - the proportion of unemployed within the labour force has been persistently high for some time; in others, where some greater progress had been made in job creation, there have been recent setbacks in export-oriented activities, either traditional or else in recently established offshore industries. Migration from rural to urban areas or to more developed islands in search of more prestigeous or higher paid jobs continues. In many sectors growth of wages continues to outstrip the growth of productivity adversely affecting international competitiveness; elsewhere some of the unemployment may have been disguised or have been reflected as reduced productivity. In many of the islands unemployment co-exists with shortages of agricultural labour, and at the same time there are perceived shortages of adequately trained labour and technical skills.

1.4 The economies and their resource base

Within this sizeable group of small developing countries, quite considerable diversity of economic structure and resource base exists. The larger and more developed countries are themselves more varied in size and resource endowment, and all are going through periods of profound structural adjustment. Trinidad and Tobago in many ways has the largest and most sophisticated economy of all the island states, which has been built on the basis of prolonged exploitation of petroleum resources. Trinidad's society has become very urbanized and the economy has long been consumption- and import-oriented. Agriculture is in need of substantial rejuvenation after decades of neglect, while manufacturing has until recently largely consisted of break of bulk, packing and bottling operations, with some subsidized assembly of imported kits of consumer durables. Labour costs have been amongst the highest in the Caribbean, and public sector investment in infrastructure and capital-intensive industries has not as yet greatly contributed to the much sought after self-reliance. There is an urgent need for a new industrial policy framework.

Guyana and Jamaica have much the broadest economic bases with significant mineral resources, very considerable agricultural activity and potential, and larger domestic markets than the average for the Caribbean. Both have hitherto had their development prospects severely constrained by their reliance on exports of primary raw materials and low prices on the world market prevent their existing production capacity from being efficiently utilized. Both economies have of late suffered seriously from prolonged shortages of foreign exchange which have starved the productive sectors of their economies of essential inputs.

The economy of The Bahamas is predominantly tourism oriented and is very dependent on the leisure sector of the North American economies. Here the main task has been to try to derive maximum benefit from the successful tourism sector, through backward linkages and import substitution wherever possible, and to decentralize development to exploit the substantial potential of the outlying islands for agriculture as well as for tourism. Bermuda is an offshore economy entirely dependent on its international banking, financial services and tourism sectors to sustain its high standard of living. Strict banking laws and political stability are major contributors to the success of this tax haven.

Barbados is also tourism oriented, but has equally been more successful in diversifying the structure of its economy and attracting export-oriented assembly industries. Even here, however, domestic manufacturing, as distinct from offshore manufacturing, has not greatly developed beyond the break-of-bulk, refining, and packaging activities needed primarily to service its tourism sector. Thus far relatively little progress has been made in integrating local agriculture to the needs of its tourist visitors, and import dependence for food and consumer goods has increased as a result. Nevertheless some local entrepreneurs have been successful in producing furniture and garments on a limited scale for the Caribbean regional market.

The Netherlands Antilles has developed an unusual offshore economy, depending largely until recently on the refining of Venezuela crude oil for distribution to North American markets and on its offshore financial services sector. Even now when a glut of oil and the consequent fall in oil prices have sharply curtailed refining operations, Curacao has largely retained its trans-shipment role for bulk carriers from African and Middle Eastern suppliers. Tourism is also a significant earner of foreign exchange in both parts of the federation, although the Leeward Islands and the southern islands, off the South American coast, serve different markets.

Amongst the less developed countries, Belize is similar to Guyana and Jamaica in its range and type of resource endowment, the development of which so far has had an agricultural bias; but this economy has not yet reached a more advanced stage of development, so far lacking the essential infrastructure and trained labour force to achieve take-off. Tourism has lately become a growth sector and the economy's future development largely hinges on the greater involvement of external capital and skills in export oriented production and processing as well as the removal of policy and organizational obstacles to development.

The member states of the OECS themselves vary considerably in economic structure and resource endowment. Dominica, Grenada, St. Kitts, St. Lucia, and St. Vincent - all have considerable agricultural potential and have been successful in varying degrees in diversifying away from over-dependence on the export of primary commodities, such as bananas or spices, and sugar. Some islands, such as Dominica and St. Lucia, have sought to attract overseas investors to establish offshore industries with some small success, and all have attempted to encourage the growth of local entrepreneurship to a greater or lesser extent; often this has taken the form of a very small-scale processing/preserving of surplus agricultural produce, such as jams or pepper sauces, or low technology import substitution industries, such as furniture or building materials. Some have had success in producing simple manufactures for export to neighbouring islands or for the key CARICOM market centres, but all suffer from the disadvantages of their relative isolation and tiny domestic markets. St. Vincent has played a significant role in inter-island trading and transport. All to a greater or lesser extent have begun to exploit their potential for tourism, with some degree of specialization. Those with less agricultural potential such as Antigua have developed their tourism sectors to the point of over-dependence.

The Caribbean micro-states face similar obstacles to development, including very narrow resource bases, relative isolation, and high costs of both external and internal transportation. All have chosen to remain dependent territories, although with large degrees of self-government. Anguilla and Montserrat both have predominantly agricultural economies, though

much production is at the subsistence level. The Cayman Islands have become a major offshore financial centre. The British Virgin Islands and the Turks and Caicos Islands are both predominantly tourism oriented, exploiting their natural scenic resources and their offshore locations. In all the micro states the service sector tends to predominate, and their ability to initiate major new investment projects depends largely on their ability to attract external resources from their dependent or regional powers.

The marine resource base in the Caribbean region has a good potential that could be tapped for industrial use by: exploiting the potential for mariculture/aquaculture development; improving commercial seafood processing and distribution; promoting fishery gear/technology improvement and development; strengthening co-operatives for boat building/ repair facilities; promoting the processing of salt based on seawater reservoirs; introducing industrial uses of marine plants for food, pharmaceutical and chemical production; promoting utilization of fish skin for leather industry development as a by-product of fish processing; promoting cottage industry production using local materials (such as shell buttons, jewellery, pearls for ornamental uses, etc.); enhancing coral reef exploitation, management and environmental protection for construction industries (sand, gravel, limestone); and developing alternative ocean-based energy sources. Fish processing constitutes a large potential for achieving import substitution, provided the processing industries are granted some degree of protection initially under the pretext of rejuvenating a traditional activity. Successful aquaculture of many species is possible, especially when supported by new techniques in fish farming. Export promotion is also possible through the modernization of the fishing fleet, improved fishing technology and gear, improved distribution and storage facilities. The island states would need to strengthen their scientific and technological base in marine science to take advantage of the rich potential that the ocean offers for industrial development.

1.5 The industrial base

Manufacturing activities have so far accounted for a relatively small proportion of GDP in the Caribbean economies, and recently this contribution has tended to fall. While manufacturing activity rallied in Barbados, Trinidad and Tobago and Montserrat during 1986, trading difficulties in the region and rising input costs constrained manufacturing output in most of the countries and a number of enterprises closed or reduced operations. As can be seen in Table 1.4 only in Jamaica has manufacturing a share of total value added approaching 20 per cent. In Trinidad and Tobago manufacturing has a share of under 8 per cent, while in Guyana the share is less than 4 per cent. Of the OECS members only in St. Kitts-Nevis does the share of manufacturing exceed 10 per cent. A distinguishing feature of manufacturing in the Caribbean has been its concentration on a limited range of product areas; being mainly agro-industries, garments and footwear, furniture, and assembly type industries. The range of activities and the scale of operations tends to be even more limited in the smaller islands. The concentration on a few product areas and dependence on a very limited number of markets tends to add to the sector's vulnerability to adverse technological or market developments.

Table 1.4. Sectoral value added shares of GDP in selected Caribbean countries, 1983-85
(percentage)

Country	Value added in				
	Agriculture	Mining	Manufacturing	Construction	Tertiary and other sectors
Jamaica	6.0	5.3	19.3	8.8	60.6
Trinidad & Tobago	4.4	24.6	7.2	12.0	51.8
Guyana	25.2	3.0	3.5	7.6	60.7
Barbados	7.0	1.4	11.8	6.1	73.7
Netherlands Antilles[a/]	...	...	...	...	...
The Bahamas	...	...	...	...	...
Belize	22.1	0.2	13.8	5.3	58.6
Bermuda[a/]	...	...	...	...	...
OECS:					
St. Lucia	14.2	0.7	8.8	6.5	69.8
St. Vincent and The Grenadines	17.4	0.3	9.3	10.7	62.3
Grenada	17.6	1.1	6.0	7.6	67.7
Dominica	29.7[c/]	0.8[c/]	7.7[c/]	7.5[c/]	54.3[c/]
Antigua and Barbuda	5.1	0.5	6.5	5.3	82.6
St. Kitts-Nevis	12.3	0.3	13.8	9.5	64.1
Montserrat[b/]					
MICRO-STATES:					
Cayman Islands[a/]	...	...	...	...	...
Montserrat[a/]	4.6	1.2	6.4	7.6	80.2
British Virgin Islands[a/]	...	...	...	...	...
Turks & Caicos Islands[a/]	11.9[c/]	3.6[c/]	0.6[c/]	20.8[c/]	63.1[c/]
Anguilla[a/]	...	...	...	...	. .

Source: Caribbean Development Bank, Annual Report 1986.

a/ Dependent territory.

b/ See below under micro-states.

c/ Data for 1983-1984.

One of the more developed industrial branches within the Caribbean economies is the agro-industrial branch. Development of this sub-sector has taken several forms, the largest and best established being the production of sugar and sugar-based products including rum and other alcoholic drinks. In most cases foreign capital was originally involved in the establishment of these larger-scale activities, but more recently local interests, both public and private, have come to assume a larger role. Increased competition in overseas markets and falling prices are forcing these industries to become more competitive in both production and marketing activities. In some of those islands with significant agricultural potential, the processing/preserving of agricultural produce has expanded greatly in recent years, largely serving the needs of small domestic markets, but in some specialized areas producing for export - as in the case of concentrated fruit juices, spices and spice-based sauces. In some of the tourism-oriented economies, these activities have grown out of or have been combined with break of bulk or packaging operations of imported foodstuffs. In most of the smaller islands, jams and jellies and preserved foods are also produced in very small-scale or cottage enterprises, utilizing seasonal surpluses of local crops; but these operations are heavily constrained by insecurity of supplies of raw materials and the lack of adequate market outlets.

In the two decades after 1960 a number of the Caribbean economies developed import-substitution industries, utilizing simpler technologies or assembling imported components/kits. Established within protected, limited markets, these industries remained highly dependent on imported inputs and technologies; inter-industry production linkages were not well developed and the sector was often characterized by deficiencies in managerial, marketing and entrepreneurial skills. The type of products so produced include foodstuffs, edible oils, packaging materials, furniture, garments, footwear, chemicals, plastic goods, motor parts and white electrical goods. Where overseas investors have been attracted to establish new labour-intensive, industrial ventures in the islands, garments, electronics and electrical goods have tended to predominate. Such offshore assembly operations tend not to be well integrated with the local economy; rather they tend to be closely oriented to the needs of the North American market and are largely of the 'foot-loose' enclave type. Caribbean governments actively encourage the establishment of enclave industries to create employment. Special incentives are laid down by the CARICOM Secretariat for enclave industries. Service industries such as data processing, key punch operations and electronic assembly are one of the largest industrial employers other than the major industry.

The small size of the Caribbean economies means that they are heavily dependent on external demand. However, manufactured exports in the Caribbean region have been greatly reduced by recent economic difficulties and trade restrictions in some of the key regional markets. These restrictions suddenly diminished preferential access to protected, neighbouring markets, which in many cases had absorbed the majority of production. The loss of access to key regional markets, such as Trinidad and Tobago and Jamaica, has hit producers in Barbados and the OECS hard; the growth of manufacturing output experienced in the 1970s and early 1980s has given way to stagnation or decline. In the larger economies, such as Barbados, Jamaica and Trinidad and Tobago, depressed demand has reduced already limited market opportunities and real output has declined by an estimated 16 per cent in Trinidad and Tobago in 1985, by 9 per cent in Barbados in 1985, and by a similar amount in Jamaica. However, there were signs of recovery in the manufacturing sector in Trinidad and Tobago and Barbados during 1986.

1.6 Industrial investment opportunities

All of the island and littoral countries of the Caribbean have adopted industrial promotion strategies as a means of diversifying the productive base, and the majority have undertaken active investment promotion targeted on major overseas investors in North America. The member states of CARICOM and the OECS have established treaty arrangements to standardize the range and type of incentives provided and in this way avoid fruitless bidding up of the fiscal and investment incentives. There are, however, some minor variations in the benefits offered within the overall standard framework. Some states, such as Jamaica, have established specialized agencies to promote joint ventures and domestic investment as well as providing industrial infrastructure and comprehensive project facilitative services. A number of OECS states maintain overseas offices, including one joint promotion service based in New York, and all have industrial development agencies designed to promote and facilitate project development and implementation. Most have access to special credit facilities provided by the Caribbean Development Bank (CDB) and other development agencies; several have constructed industrial estates to provide much needed factory accommodation. Few provide any significant industrial support services for local entrepreneurs, except the Caribbean Industrial Research Institute (CARIRI) which provides research and technical advisory services for the region as a whole from its base in the University of West Indies campus in Trinidad. The role of science and technology in small states is given attention by the Caribbean Council for Science and Technology (CCST).

The recent difficulties with access to regional caribbean markets have caused many industrial producers to begin to look towards extra-regional markets which require not only a profoundly different marketing approach, but also substantially enhanced competitiveness and superior quality control. Increasingly Caribbean governments have sought to attract foreign investors, presenting themselves as alternative locations to East Asia for the construction of offshore, labour-intensive assembly plants to serve the North American and European markets.

1.7 Intra-regional and inter-regional co-operation

The Caribbean region was one of the theatres subject to the historic rivalries of the major colonial powers, and consequently was divided at various periods into zones of influence. Some of the islands changed possession several times, so there has been a thorough mixing of language, culture, and socio-political tradition in the region. Today, however, each island exhibits a distinctive character according to its history and resource endowment.

In 1958 ten British dependencies formed the Federation of the West Indies, but this broke up in 1962 with the granting of independence to Jamaica and Trinidad and Tobago. Barbados followed with independence in 1966, while Antigua and Barbuda and St. Kitts-Nevis and the Windward Islands gained associated status in 1967, by which the islands enjoyed internal self-government. Over the period 1974 to 1983 various islands achieved full independence with the exception of the seven states indicated above. In 1954 the Netherlands Antilles made up an alternative association, which has persisted despite the great distance separating Aruba, Curacao, and Bonaire off the Venezuelan coast from St. Maarten, St. Eustatius, and Saba in the Leeward Islands.

In 1967 the Caribbean Free Trade Association (CARIFTA) was established between Antigua, Barbados and Guyana, and this was extended to include Trinidad and Tobago, Jamaica and the associated states the following year. In 1973 the then four independent states - Jamaica, Trinidad and Tobago, Guyana and Barbados - formed CARICOM to pursue economic integration by means of a Caribbean Common Market. The following year all the Windward and Leeward Islands joined CARICOM with the exception of St. Kitts-Nevis; Belize and The Bahamas subsequently became members. There are several institutions of CARICOM responsible for formulating policies and supervising co-operation in services, such as education, health, labour matters; agriculture, industry, transport, energy, science and technology and foreign policy also have co-ordinating mechanisms. Industry programmes have been established to encourage and support export-oriented industries, to foster investment, and to provide training and consultancy services to regional manufacturers. There are a number of associate institutions. In 1969 the Caribbean Development Bank (CDB) had been established as the first regional lending agency. This was followed by the Caribbean Investment Corporation (CIC) to promote industrial development in the less developed countries in 1975.

The Organization of Eastern Caribbean States (OECS) came into existence in 1981 to serve the needs of the seven island countries of the Eastern Caribbean. The OECS was in fact a reincarnation of the West Indies Associated States (WIAS), which had been established in 1966, and the East Caribbean Common Market (ECCM), which had provided the mechanisms of political and economic co-operation prior to independence. The OECS promotes economic co-operation and integration among the member states, operating at both regional and international levels, to assist in the realization of mutual obligations and responsibilities as well as to harmonize foreign policy. Steps are being taken by the OECS member countries to establish the Eastern Caribbean States Export Development Agency (ECSEDA).

Collaborative efforts continue with a view to restoring intra-regional trade which has been declining consecutively in recent years. In July 1986 the conference of Heads of government agreed to establish an Export Credit Facility to promote both intra-regional and inter-regional trade. There are signs of this scheme becoming operational by mid-1987. The scope for fostering industrialization within the framework of intra-regional trade hinges on several instruments and measures which are currently under review by the CARICOM countries. It is expected, therefore, that the year 1988 will see the adoption of a comprehensive set of measures, such as the Customs Tariff, the Origin Rules and the Fiscal Incentives Regime, to strengthen intra-regional co-operation in the sphere of trade and industrial development.

In the sphere of inter-regional co-operation the Caribbean Basin Initiative (CBI) stands as a landmark, though it is yet to yield the expected industrial spin-off. At the beginning of 1984 the US-supported CBI came into effect and extended certain benefits to 21 Caribbean and Central American countries. This trade initiative provides for duty-free access over a twelve-year period for all products except textiles and clothing, footwear, handbags, luggage, flat metal goods, leather apparel, work gloves, canned tuna, petroleum and petroleum products, watches and watch parts. Sugar remained subject to quota limits. To qualify, goods must be exported direct to the US and a minimum of 35 per cent of their value added must be added locally. The initiative was supported by a US$350 million aid programme and was designed to make for political stabilization and economic development in the region by halting the decline in the region's exports to the US. However, since 80 per cent of the region's exports already enjoyed duty free access to

the US market under the General System of Preference (GSP) arrangements, the CBI increased the list of products with preferential access only by 15 per cent, and therefore was not as significant as had originally been hoped by the island governments in the region.

In terms of the overall pattern of trade between the Caribbean and the US, the CBI does not yet seem to have had any marked impact. CBI beneficiary countries' exports to the US in 1986 were valued at US$3.39 billion, US$1 billion less than 1985 earnings. This decline has continued into 1987, with first quarter earnings totalling US$903 million, 17 per cent less than the corresponding period in 1986.1/ This overall decline in Caribbean-US trade has been the result of a fall in traditional Caribbean exports, such as sugar, bauxite and petroleum. In contrast non-traditional exports have increased significantly; these include fresh vegetables and fruits, shellfish, furniture and toys, clothing, electronic goods. Certain countries, notably St. Lucia, Montserrat, St. Vincent, Antigua, Grenada, the British Virgin Islands and Dominica have increased their exports to the US in 1984 and 1985, although in value terms the amounts involved have sometimes not been great because of very low starting points.

US import policy already provided preferential access prior to the CBI scheme2/ although with quotas, for a limited number of products, which are assembled from materials imported from the US for re-export to that country; these arrangements apply to metal articles, electronic components, and to apparel and sewn items, some of the most important manufactures for Caribbean exporters. Under these arrangements Caribbean producers supplied 5 per cent of the US's garment imports in 1985, valued at US$590 million. A recent relaxation of quotas and the granting of guaranteed access levels for some Caribbean producers is expected to result in growth of the region's market share to in excess of 10 per cent - imports from the Caribbean having already grown by almost 20 per cent in volume terms in 1986, as East Asian and US producers invested in expanded production capacity in Jamaica and Barbados amongst others.

The year 1986 witnessed new developments towards intensifying inter-regional trade. The proposal on trade and economic development programme betweeen the Commonwealth Caribbean and Canada, known as CARIBCAN, received support from CARICOM countries. New developments also centred on exploring possibilities for preferential trade and co-operation agreements between Caribbean and EEC as well as Latin American countries. Caribbean hopes of significantly lifting the value of exports to the US rose again in August 1987 with new proposals from the US Congress for further expansion in trade facilities. The proposed legislation suggests specific measures for boosting the exports of selected products.

1/ Financial Times, Tuesday, 18 August 1987.

2/ Items 806.3 and 807 of the US Tariff Schedule apply import duty only to the value added during the processing/assembly outside the US of articles/components manufactured in the US prior to re-export to the US.

Table 1.5 US imports of high-tariff goods[a/] from the world selected as opportunities for CBI beneficiaries, 1985

Product	1985 imports (US $ million)	Duty (US $ million)	Effective duty rate (per cent)
Animal/vegetable products	1,156.0	416.5	36.03
Wood/paper/printed matter	6.2	0.7	11.00
Fibres, textiles, apparel	-	-	-
Chemicals	-	-	
Non-metallic mineral products	798.5	157.5	19.73
Precious metals	-	-	-
Iron and steel	-	-	-
Other metal products	-	-	-
Nails, screws, locks, hardware	21.5	2.7	12.51
Tools, cutlery, forks, spoons	52.3	9.9	18.99
Miscellaneous metal products	-	-	-
Machines and parts	-	-	-
Generators, motors, transformers	-	-	-
Lighting equipment, appliances	-	-	-
Radio/TV transmitters/receivers	74.9	7.5	10.07
Electronic tubes, semi-conductor	81.8	12.0	14.75
Wiring harnesses	-	-	
Motor vehicles	-	-	-
Footwear, headwear, gloves	-	-	-
Optical, medical, instruments	2.6	0.5	20.94
Watches/clocks/timing development	113.2	15.2	13.48
Photo equipment, musical instrument, furniture	-	-	-
Arms and ammunition	30.0	3.7	20.94
Fishing tackle	95.5	10.6	11.11
Wheel goods	158.3	17.6	11.10
Games and sporting goods	-	-	-
Models, dolls, toys	10.4	1.5	13.91
Jewelry, beads	49.2	10.8	21.97
Buttons, buckles, fasteners	10.4	2.2	21.04
Miscellaneous	89.1	12.6	14.15
Other	1.4	0.1	10.59
Total	2,751.6	681.6	24.77

Source: The Flagstaff Institute, Journal of the Flagstaff Institute, "191 High-Tariff Product Opportunities for the Caribbean Basin Initiative", Vol.XI, No.1, February 1987.

a/ This list was prepared by selecting all items entering at 10 per cent plus duty in amounts above US $1 million each, eliminating from US imports data the following items: all goods excluded by CBI legislation; all goods currently entering under the Genealized System of Preferences at zero duty rate; and all high technology goods requiring complex or capital-intensive integrated industries for successful operation. For additional information, see the source for Table 1.5, pp.3-7.

Table 1.5 presents a list of high-tariff goods totalling US $2.8 billion imported by the US from the world in 1985. Many of these items represent industrial product opportunities, which could have been produced efficiently by the CBI beneficiaries and exported to the US because of the extra margin created by the elimination of tariff under CBI legislation.

Although CBI's promotional impact had some effect on investment in new capacity, not all the Caribbean countries benefitted equally. US imports data for 1985 showed that the CBI beneficiary countries did not make optimal use of the opportunities provided by tariff elimination. The necessary up-grading and re-orientation of production to the needs of the US market cannot be achieved overnight. There is a need for a reappraisal of the competitve structures of firms to make the new margin sufficient for justifying local manufacture of these products for exports. Appendix 1.A lists 191 high-tariff product opportunities for the CBI countries. Apart from margins stemming from tariff reductions, there are several other factors that sharpen the non-price competitive edge of these products. The industrial restructuring process in the CBI countries should encompass all these factors to make the CBI a success. Annex B shows the flow of Official Development Assistance (ODA) to 17 island states in the Caribbean region during 1975-1984. The major recipients were Jaimaca, The Netherlands Antilles, Grenada and Dominica.

Traditionally, the Caribbean states have looked northward, with the patterns of trade and economic relations directed mainly towards Europe and North America. Renewed interest is surfacing in strengthening their economic links with larger Latin American countries, such as inter alia Mexico and Venezuela. Mexico's new effort is an agreement with Jamaica for co-operation in the production of aluminium. In mid-1987 Venezuela promised increased financial assistance to several of the small eastern Caribbean islands. There are indications that Mexico and Venezuela are to examine the possibilities for establishing reciprocal co-operation links with the Caribbean countries, with a view to encouraging trade and joint ventures.

1.8 Future economic prospects for the region

There are signs of continued modest growth in 1987, with an upward trend specially marked in the OECS member states. Indications are that tourism will continue to expand, banana production will also increase, but manufacturing will remain depressed. In some countries overall growth rates in excess of 4 per cent are possible. Realization of these levels of growth requires sustained investment, increased diversification, improved competitiveness and increased exploitation of preferential access to North American and EEC markets, as well as further development of tourism; further rehabilitation and structural adjustment of the island economies will be required to generate additional savings, efficiency and reduce deficits on current account balance of payments. Further measures to encourage industrial development will be necessary including the provision of appropriate incentives for the private sector and reassessment of the role of of the public sector in productive economic activities, not least by introducing appropriate policies for wages and for real exchange rates to ensure that foreign exchange resources are diverted into productive investments rather than into consumption and thus exports remain constrained.

For the immediate future the recent pattern of events is expected to continue. Any improvements in the world prices of primary commodity exports will have immediate effects on the balance of payments positions of the major Caribbean suppliers. Changes in the oil price will substantially determine

the economic perspective in Trinidad and Tobago and the need for further economic diversification; however any fall in the oil price and in international interest rates may well help to stimulate the economies of the oil-importing countries in the region - which make up the overwhelming majority. Those countries closely tied to the US economy, particularly through a linked currency, may well continue to benfit from any continued fall in the value of the dollar; in addition there may well be some benefit from increased access for certain exports to the US market through the Caribbean Basin Initiative and other preferential access schemes. The medium- to long-term prospects of the Caribbean economies with their heavy dependence on international commodity and tourism markets are inevitably linked closely to the performance of the industrial economies of North America and Europe.

APPENDIX 1.A.

High tariff US imports from the world that are of possible interest to the CBI beneficiaries, 1985

Product	(US$)	duty (US $)	duty rate (Per cent)
Sardines in oil not skinned or boned over 30CTS Lb, CND NSPF	8,429,300	1,264,407	15.00
Fish sticks a similar products breaded, etc, not cooked or in oil	1,122,281	112,224	10.00
Snow crabmeat, prepared or preserved, in airtight container	3,804,606	418,508	11.00
Crabmeat, except snow crab, prepared or preserved, canned	16,330,876	1,990,606	12.19
Blue-mold cheese in original loaves, see item 950.07, quota	7,248,196	1,087,447	15.00
Cheese, chedder not processed than division in pieces, quota, lic. restriction	1,835,202	220,224	12.00
Cheese, chedder not processed than division in pieces, quota	2,665,147	1,236,356	46.39
Cheese, edam and gouda, within quota	10,704,492	1,623,761	15.17
Edam and gouda cheese substitutes, within quota	1,997,972	310,094	15.52
Cheese, romano made from cows milk, in original loaves	1,348,810	278,189	20.62
Cheese, parmesano and reggiano, in original loaves	12,529,085	2,348,537	18.74
Cheese, provoloni and provolette, in original loaves	2,170,093	407,903	18.80
Amer-type cheese, substitutes from amer-type cheese over 25CT lb, quota	2,238,680	579,055	25.87
Cheese substitutes from gruyere-process cheese, over 25CTS lb, quota	2,624,270	330,746	12.60
Cheese, substitutes NSPF, over 0.5% BTFT, over 25CTS lb, quota	75,468,529	10,393,196	13.77
Cheese, substitutes NSPF, 0.5% or less BTFT, over 25CTS lb, quota	8,715,469	1,101,850	12.64
Asparagus, fresh or chilled, NSPF	9,392,485	2,348,134	25.00
Corn on the cob, fresh, chilled, or frozen	1,038,979	259,745	25.00
Cucumbers, fresh, frozen, entry May 1 - June 30 and Sept. 1 - November 30	5,386.960	655,741	12.17
Onions, NSPF, fresh, chilled or frozen	39,710,226	4,538,095	11.43
Potato not cert seed, russet or netted gem over CWT above quota	2,040,505	216,941	10.63
Tomatoes, fresh or frozen, entry March 1 - July 14 or Sept. 1 - November 4	98,552,390	10,193,951	10.34
Vegetables, fresh or chilled, NSPF	2,946,946	736,760	25.00
Tomato flour	7,352,980	1,180,507	16.05
Tomato Paste	27,010,771	3,818,414	14.14
Tomato sauce (including pulp)	7,737,033	1,145,635	14.81
Tomatoes prepared or preserved except paste and sauce	40,856,106	6,106,965	14.95
Artichokes, packed in salt, in brine, or pickled	5,247,928	629,752	12.00
Potatoes frozen	13,444,130	1,599,856	11.90
Potatoes dehydrated	1,537,393	182,948	11.90
Artichokes prepared or preserved, except frozen	13,204,130	2,312,575	17.51
Asparagus, prepared or preserved, except frozen	4,725,034	831,112	17.59
Mushrooms, frozen	1,658,085	215,980	13.03
Straw mushrooms, prepared or preserved, except frozen	6,829,113	914,086	13.39

APPENDIX 1.A. (cont'd)

Product	Import value (US$)	Calculated duty (US $)	Effective duty rate (Per cent)
Mushrooms, whole, prepared, preserved except frozen, not over 9 ozs.	8,155,522	997,270	12.23
Mushrooms, sliced, prepared or preserved except frozen, not over 9 ozs.	21,949,754	2,538,993	11.57
Mushrooms, prepared, preserved except frozen, NSPF, not over 9 ozs.	27,598,473	3,808,618	13.80
Mushrooms, whole, prepared, preserved except frozen over 9 ozs.	5,944,747	782,432	13.16
Mushrooms, sliced, prepared/preserved except frozen over 9 ozs.	8,692,878	1,206,588	13.88
Mushrooms, prepared, preserved except frozen, NSPF over 9 ozs	59,158,392	8,639,129	14.60
Appricots, prepared or preserved, NSPF	2,315,900	815,468	35.21
Blueberries, prepared or preserved except frozen	1,606,061	224,849	14.00
Strawberries, except frozen, prepared or preserved	1,562,823	252,208	16.14
Cherries, in brine with pits removed	2,105,437	321,987	15.29
Limes, fresh or in brine	4,725,986	631,337	13.36
Mangoes, fresh, entering June 1 to August 31, inclusive	14,219,816	1,804,224	12.69
Watermelons, fresh, if entered April 1 to November 30	9,192,567	1,838,515	20.00
Olives, fresh	1,152,435	330,581	28.69
Olives in brine not ripe, NES in container holding over 0.3 gal.	4,034,944	480,754	11.91
Peaches, prepared or preserved except dried or in brine	18,036,172	3,618,583	20.06
Pears, prepared or preserved except dried or in brine	12,051,972	2,170,534	18.01
Plums, prunes and prunelles, prepared, NSPF, airtight containers	1,217,897	214,075	17.58
Plums, prunes and prunelles, prepared or preserved NSPF, not canned	1,945,249	342,463	17.61
Fruit mixtures, prepared or preserved, NSPF	16,562,839	2,902,255	17.52
Fruit pastes and pulps, NSPF	1,310,811	208,310	15.89
Capers, NSPF	2,045,898	229,142	11.20
Organge juice concentrated, unmixed, not over 1% ethyl alcohol	102,108,243	201,269,290	197.11
Citrus fruit juice NSPF, unmixed not concentrated not over 1% alcohol	1,961,411	236,296	12.05
Citrus fruit juice NSPF unmixed concentrated not over 1% ethyl alcohol	1,075,087	1,434,426	133.42
Grape juice concentrate not frozen not mixed, not over 1% alcohol	3,483,159	1,869,467	53.67
Pineapple juice, not concentrated not over 1% ethyl alcohol	6,144,629	1,083,888	17.64
Champagne and other sparkling wines, $6 or less a gal	15,598,518	4,687,024	30.05
Wine, grape, red, not over 14% alcohol in container not over 1 gal not over $4	45,359,417	6,988,776	15.41
Wine, grape, white, not over 14% alcohol in container not over 1 gal not over $4	87,026,262	12,556,948	14.43
Wine, grape, NSPF, not over 14% alcohol in container not over 1 gal not over $4	15,426,835	2,266,205	14.69
Wine, grape, 14% or less alcohol, in container, over 1 gal	1,132,585	270,165	23.85
Sherry, in containers each holding 1 gal. or less	16,141,298	1,862,482	11.54
Brandy NES in containers not over 1 gal, over $9 not over $13/gal.	4,623,431	1,176,163	25.44

APPENDIX 1.A. (cont'd)

Product	Import value (US$)	Calculated duty (US $)	Effective duty rate (Per cent)
Brandy NES in containers holding over 1 gal. not over $9/gal.	1,088,257	348,690	32.04
Gin, in containers each holding 1 gal. or less	27,512,448	863,947	10.41
Whiskey, except irish scotch in containers over 1 gal. each	83,284,007	10,130,535	12.16
Vodka in containers not over 1 gal. valued not over $7.75	1,548,034	6,853,292	442.71
Cigarette leaf, not stemmed, oriental or Turkish, not over 8.5 IN	7,620,376	22,110,083	290.14
Cigarette leaf tobacco, not stemmed, flue-cured	9,101,433	2,590,091	28.46
Cigarette leaf tobacco, not stemmed, burley	9,050,920	1,754,190	19.38
Cigarette leaf, not stemmed, NES	1,434,074	202,589	14.13
tobacco, cigarette leaf not over 35% wrapper, stemmed	10,434,095	12,826,322	122.93
Tobacco, cigarette leaf, flue-cured, stemmed, not over 35% wrapper	8,221,550	8,982,444	109.25
Tobacco, cigarette leaf, stemmed, NSPF, not over 35% wrapper	6,377,465	8,586,153	134.63
Cigar leaf scrap tobacco	2,364,642	4,522,696	191.26
Tobacco, except smoking tobacco, manufactured or not, NSPF	1,775,682	215,948	12.16
Tobacco, manufactured or not manufactured, NSPF	1,446,534	172,133	11.90
Soybean oil	3,391,034	1,534,652	45.26
Animal oils, fats and greases, NES from milk, edible	1,032,440	128,261	12.42
Hydrogenated oils, fats and greases and lard substitutes NSPF	4,576,640	565,689	12.36
Edible prepared NSPF, containing over 5.5% butterfat, not retail sale	2,162,954	430,550	19.91
Plywood, with a face ply of hardwood	6,257,899	688,372	11.00
Fluorspar containing not over 97% by weight of calcium fluoride	6,590,008	889,653	13.50
Ceramic mosaic tile, bulk sheets not over 300 tiles/SF ST edge glazed	18,430,240	3,896,533	21.14
Ceramic mosaic tile, bul sheet not over 300 tiles/SF ST edge not glazed	2,154,913	467,960	21.72
Cermaic floor and wall tiles, glazed	200,608,360	40,998,568	20.44
Ceremic floor and wall tiles except mosaic, not glazed	25,730,093	5,511,876	21.42
FG earthenware hotel or restaurant or other ware except household type	9,336,032	3,790,020	40.60
Earthenware FG household tableware, in specified sets, not over $38/set	9,988,876	1,459,512	14.61
Mugs and other steins not available in specified sets NSPF	74,243,690	10,137,089	13.65
Articles of fine grained earthenware, NSPF	42,509,669	6,223,947	14.64
Hotel, restaurant ware of non-bone chinaware or subporcelain	12,778,525	4,977,701	38.95
Chinaware, non-bone household in specified sets valued not over $56	13,158,726	4,405,503	33.48
Chinaware non-bone household specified sets valued over $56/set	86,382,728	9,482,696	10.98
Mugs and other steins not available in specified sets	15,322,419	2,895,983	18.90
Candy boxes, decntrs, bowls, servrs, etc NSPF not in specified sets	3,590,530	451,800	12.58
Non-bone china tableware specific high value	14,703,455	1,612,662	10.97

APPENDIX 1.A. (cont'd)

Product	Import value (US$)	Calculated duty (US $)	Effective duty rate (Per cent)
Non-bone china tableware NSPF chinaware, specific medium values	21,731,650	5,760,394	26.51
Glass globulbs and balls not over 1 mm in diameter (solid)	1,693,677	296,397	17.50
Bricks and blocks of pressed or molded glass used chiefly in building	2,349,641	286,566	12.20
Ordinary glass, no wire net, not over 15/32 in thick, 2-2/3-7 sq.ft.	1,658,527	191,263	11.53
Tumblrs goblets stemware and table ware f FD A bvg not over $1 each	9,356,302	1,922,640	20.55
Glassware, NSPF, valued not over $1 each	4,510,651	934,833	20.73
Tumblers goblets stemware a tableware valued from $1 to $3 each of glass	28,361,406	4,097,579	14.45
Glassware, NSPF, valued from $1 to $3 each	13,164,525	1,914,707	14.54
Tumblers, goblets, stemware a tableware F FD A bvg valued over $3 not over $5 each	8,004,163	895,378	11.19
Glassware, NSPF, valued over $3 but not over $5 each	10,044,691	1,148,536	11.43
Glassware, coloured NSPF with bubbles, seeds or stones throughout	2,086,514	417,307	20.00
Glassware, NES, pressed, toughened? Temprd? household, food/beverage	20,785,667	2,618,638	12.60
Tumblers, goblets and other stemware valued not over $0.30 each	3,337,251	1,734,558	51.98
Tableware, kitchen ware and cookware except glass valued not over 0.30	1,661,370	684,405	41.20
Glassw re NSPF except tableware, kitchenware and cooking value not over $0.30 each	3,344,352	1,382,004	41.32
Tumblers, goblets, a stemware over 30 cents, but not over $3 each	34,766,593	12,080,901	34.75
Tableware, kitchenware, cookware not over 30 cents, but not over $3 each	22,538,987	7,366,041	32.68
Glassware, NSPF value over 30 cents, but not over $3 each	29,093,325	9,164,336	31.50
Tumblers goblets other stemware cut or engraved value over $3 not over $5 each	1,817,500	316,233	17.40
Tableware, kitchenware, cookware glass cut or engraved value over $3 not over $5 each	1,464,320	304,838	21.16
Glass table kitchen cookware cut or engraved, value over $3 not over $5 each	1,729,074	421,898	24.40
Tumblers goblets stemware cut or engraved value over $5 each	1,726,683	243,737	14.12
Glassware, cut or engraved NSPF, value over $5 each	2,729,910	595,258	21.81
Tumblers, goblets stemware not cut or engraved value over $3 not over $5 each	3,463,639	540,803	15.61
Glassware, tableware, kitchenware, cookware not cut or engraved value over $3 not over $5 each	6,007,911	1,238,678	20.62
Glassware, NSPF not cut or engraved value over $3 not over $5 each	5,851,829	1,217,458	20.80
Tumblers, goblets, and other stemware, valued over $5 each NSPF	1,725,966	184,536	10.69
Glassware, Tableware, kitchenware, cookware not cut or engraved valued over $5 each NSPF	3,731,052	587,920	15.76
Glassware NSPF not cut or engraved valued over $5 each	14,309,383	1,780,731	12.44
Lag screws or bolts of iron or steel	7,742,865	968,527	12.51

APPENDIX 1.A. (cont'd)

Product	Import value (US$)	Calculated duty (US $)	Effective duty rate (Per cent)
Wood screws of iron or steel NES	13,792,628	1,724,843	12.51
Slip-joint pliers, NSPF	9,668,081	1,355,051	14.02
Knives stainless steel handle cont NO NI not over 10% MNG under 25CTS not over 10.2 inches	9,301,025	1,880,140	20.21
Forks stainless steel handle con NO NI not over 10% MNG under 25CTS not over 10.2 inches	13,938,987	3,263,814	23.42
Spoons with stainless steel handles, under 25CTS not over 10.2 inches	19,437,387	3,439,742	17.70
Rad. rec. sol ST entertain BRD cast bd, for MTR VEH EX AM&AM/FM	3,854,615	433,975	11.26
Fixed capacitors, aluminium electroytic, 11/16 inches & under	58,333,954	5,840,425	10.01
Fixed capacitors, aluminium electrolytic, over 1-3/8 inches	5,119,285	511,847	10.00
Fixed capacitors, tantalum electrolytic, dipped	7,642,346	764,225	10.00
Television picture tubes, colour, 12 inches and under	2,633,153	394,971	15.00
Television picture tubes, colour, 13 inches	28,998,175	4,346,521	14.99
Television picture tubes, colour, 14 and 15 inches	6,988,041	1,048,209	15.00
Television picture tubes, colour, 18 and 19 inches	22,548,510	3,233,234	14.34
Television picture tubes, colour, 20 inches and over	20,695,121	3,052,273	14.75
Bicycle speedometers and parts thereof	2,648,166	554,448	20.94
Clocks NES, over $2.25 to $5 battery operated	5,191,155	835,929	16.10
Clocks NES, over $2.25 to $5 nonelectric	3,777,107	716,463	18.97
Clocks NES, over $5 to $10 battery operated	3,358,919	578,611	17.23
Clocks NES, over $10 battery operated	5,621,954	735,511	13.08
Clocks NES, over $10, electric, except battery	1,901,291	227,094	11.94
Clocks NES, over $10, non-electric	12,886,362	1,534,918	11.91
Clockwork mechanisms NES, valued over $1.10 to $2.25 each	1,131,712	213,070	18.83
Clockwork mechanisms NES, valued over $2.25 to $5 each	1,167,360	205,554	17.61
Clockwork mechanisms NSPF, valued over $10 each	3,160,998	400,193	12.66
Time switches, valued over $1.10 to $2.25 each	1,862,167	323,129	17.35
Watch movements, over 0.6 not over 0.9 inches, 0 to 1 jewel WBWH	3,720,252	382,128	10.27
Clock movements, under 1.77 inches, not over 47 hr, battery, 0 to 1 jewel	21,675,374	3,523,594	16.26
Clock movements, under 1.77 inches, not over 47 hr, electric, 0 to 1 jewel	3,960,780	435,355	10.99
Clock movements, under 1.77 inches, not over 47 hr, NES, 0 to 1 jewel	3,517,276	405,621	11.53
Clock movements NES, over $10, non-electric	10,962,134	1,311,682	11.97
Watch cases, of silver, part precious metal or set etc.	10,513,099	1,205,722	11.47
Watch cases NSPF	5,726,983	598,055	10.44

APPENDIX 1.A. (cont'd)

Product	Import value (US$)	Calculated duty (US $)	Effective duty rate (Per cent)
Watch bezels, backs and centres NSPF	1,053,892	123,071	11.68
Watch and clock dials, under 1.77 inches wide, NSPF	4,250,128	616,702	14.51
Watch parts NSPF	1,558,922	268,656	17.23
Clock parts NSPF	6,233,648	624,571	10.02
Pistols and revolver, valued over $8 each	26,109,526	3,142,901	12.04
Pistol or revolver parts	3,915,392	561,033	14.33
Fishing rods	69,785,151	7,665,132	10.98
Fishing rod parts NES	3,810,985	413,568	10.85
Fishing reels, valued not over $2.70 each	6,254,086	932,607	14.91
Artificial baits and flies	15,638,429	1,595,425	10.20
Bicycles, not over 19 inches wheels, valued over $8.333	27,228,281	3,007,436	11.05
Bicycles, over 19 to 21 inches wheels, valued over $13.333	83,955,391	9,285,921	11.06
Bicycles, over 21 to 25 inches wheels, valued over $13.333	14,121,714	1,571,875	11.13
Bicycles, over 25 inches wheels NES, over $16.666	31,260,124	3,450,243	11.04
Bicylces, NSPF	1,734,845	260,230	15.00
Parts of dolls, NSPF	10,685,596	1,486,648	13.91
Watch bracelets of materials NSPF, valued over $5 per dozen	49,188,007	10,804,747	21.97
Plastic fastening barbs, not over $0.20 per dozen	1,286,015	248,204	19.30
Slide fasteners valued over $0.04 each	5,655,712	976,420	17.26
Sliders, with or without pulls	1,874,748	520,095	27.74
Parts of slide fasteners NSPF	1,601,024	447,150	27.93
Brooms etc of broom corn, valued over $0.96 each	1,641,303	519,745	31.67
Ferrocerium and other pyrophoric alloys	1,292,160	130,754	10.12
Ball-point pens and ball-point pencils	58,490,605	8,138,880	13.91
Fountain pens, including stylographic pens	8,392,301	927,249	11.05
Tubes bicycle	19,329,839	2,899,494	15.00
Clothespins, springtype wood valued over $0.80 not over $1.35 per gross	1,454,348	153,961	10.59
Totals	2,752,106,441	681,909,050	24.78

Source: The Flagstaff Institute, Journal of the Flagstaff Institute, "191 High-tariff Product Opportunities for the Caribbean Basin Initiative", Vol.XI, No.1, February 1987.

2

JAMAICA

BASIC INDICATORS 1
The economy

GDP (1986):	US$2,216 million[a/]
GNP per capita (1985):	US$1,150
Population (1985):	2.33 million

Average annual growth rate of population:	1965-80	1980-85
	1.1	1.6

Density of population (1985):	204 per sq. km
Labour force (1984):	971,400

Growth of real GDP: (per cent)	1965-73	1973-84	1984	1985	1986[a/]
	5.4	-1.4	-0.5	-5.0	2.0

Distribution of GDP (1985): (percentage)	Agriculture (8.9), mining (5.2), manufacturing (15.6), construction (6.0), government services (18.9), financial institutions and property (18.7), distribution (15.0), transport and communications (7.0), other (4.7)
Demand components of GDP (1984): (percentage)	Private consumption (65.2), government consumption (16.8), fixed investment (21.0), stocks (1.5), exports (55.0), imports (-59.5)
Sectoral distribution of employment (1985): (percentage)	Agriculture (33.5), mining (1.0), manufacturing (11.0), other (54.5)

Consumer price inflation: (per cent)	1981	1982	1983	1984	1985	1986
	12.7	6.6	11.6	29.6	26.9	22

Exchange rate: (Jamaican dollar equivalents to US$1)	1981	1982	1983	1984	1985	Nov.1986	July.1987
	1.78	1.78	3.28	4.93	5.55	5.48	5.50

[a/] Preliminary estimate.

BASIC INDICATORS 2
Resources

Land area:	11,424 sq. km 30 per cent cultivated 20 per cent pasture
Production of major crops (1985): (tons)	Sugar cane (210,000),[a/] bananas (12,000),[b/] cocoa (1,710), ginger (650)[a/]
Other crops:	Coffee, citrus (oranges, lemons, grapefruit, limes), pimento, pineapple, maize, rice, yams and other vegetables for subsistence
Livestock (1984): (number in '000)	Goats (420), cattle (318), pigs (275), sheep (6), poultry (for subsistence)
Fisheries (1983):	8,000 tonnes
Forests:	2,284 sq. km 20 per cent of land area
Minerals:	Bauxite (1980) 12.00 million tonnes (1984) 8.75 million tonnes (1985) 6.10 million tonnes (1986) 5.80 million tonnes Alumina (1984) 1.69 million tonnes Gypsum, marble, silica, clays and peat
Energy resources (1984):[a/]	Petroleum fuels (850,000 tons), Bagasse (660,000 tons), Electricity (2,400 gWh)

[a/] Estimate.

[b/] Estimated output for 1986.

BASIC INDICATORS 3
The manufacturing sector

MVA (1985):	US$404 million[a/]				
Real growth rate of MVA: (per cent)	1965-73	1973-84	1984[b/]	1985[b/]	1986[b/]
	4.0	-3.3	-6.4	-6.0	8.0
Distribution of MVA: (percentage)				1970	1983
	Food products			41	43
	Textiles and clothing			9	6
	Machinery and transport equipment			7	...
	Chemicals			11	16
	Other manufacturing			32	35
Employment in manufacturing (1984):	92,800				
Manufactured exports[c/] (1984):	US$148 million				
Share in total exports:	20 per cent				
Manufactured imports[d/] (1984):	US$309 million				
Share in total imports:	26 per cent				

[a/] Preliminary estimate.

[b/] Growth rates of manufacturing output.

[c/] Defined as total exports less exports of primary agricultural and crude materials.

[d/] Defined as total imports less raw materials, fuels, food and other non-durables.

BASIC INDICATORS 4
Foreign trade and balance of payments

Exports (1985):	US$547 million
Composition of exports (1984): (percentage)	Bauxite (24.0), alumina (43.9), sugar (6.2), bananas (0.4), non-traditional exports (18.7), other (6.8)
Main destinations (1984): (percentage)	US (47.7), EEC (26.7), Canada (13.5), CARICOM (11.3)
Imports (1985):	US$977 million
Composition of imports (1984): (percentage)	Raw materials (33.1), fuel (29.5), food (7.6), consumer goods (5.5), construction materials (5.8), capital goods (18.6)
Balance of payments (1986): (current account deficit)	US$400 million[a/]
External public debt (1986):	US$3.4 billion
Debt service ratio (1986): (as per cent of exports)	40 per cent
International reserves minus gold (1985):	US$161.3 million

a/ Preliminary estimates.

2.1 THE ECONOMY OF JAMAICA

2.1.1 Recent economic trends

Following three years of modest economic growth during 1981-83, real GDP fell by 0.5 per cent in 1984 and 5.0 per cent in 1985. Real GDP grew modestly in 1986, reversing the trend of negative growth in the last few years. A 21 per cent increase in bauxite export stimulated bauxite production in 1986. Jamaica's endeavour to sustain positive growth is to be won or lost in bauxite and alumina production which accounts for over 60 per cent of the country's total export earnings. There are signs of sustaining positive growth rate in 1987. The anticipated growth rates for 1987 are in a way related to an agreement with the IMF which prescribes a further gradual devaluation of the Jamaican dollar[1/] from J$6 : US$1 in early 1987 to J$6.5 : US$1 by end-1987 and proscribes an expansionary budget.

Stimulated by an extended IMF facility of US $700 million, the economy recorded a 2 per cent increase in GDP in 1981 after a prolonged period of declining growth rates in the 1970s. In the early 1980s the government commenced a major structural adjustment programme involving various initiatives including private sector-led development and a reorientation of industrial capacity towards export production for extra-regional markets. However, reduced earnings from staple exports, continuing high inflation and interest rates, together with restraints on the growth of domestic demand inhibited the planned recovery to some extent.

Agricultural production fell by 2-3 per cent in 1986, after registering a negative growth rate of 6 per cent in 1985. Following a massive 30 per cent production drop in 1985, bauxite and alumina production fell by 5 per cent in 1986. Industrial production, excluding mining, fell by 6 per cent in 1985. Factors that continue to affect negatively the Jamaican manufacturing sector are high interest rates, high cost of utilities, competition from imports and depressed local demand. The 1986 trade deficit was estimated at $550 million, up from $520 million in 1985. The estimated current account deficit on the balance of payments in 1986 was around US$400 million, up from an estimated $375 million the previous year. The country's total external debt stood at around $3.4 billion in December 1986. As a result of prolonged marked deterioration in economic performance, Jamaica had to ask for waivers of performance criteria stipulated by creditors. Following Jamaica's US $132.8 million standby agreement with the IMF, the country concluded a US$125 million rescheduling agreements for debt payments falling due between 1 April 1986 and 31 March 1988. If reschedulings were not achieved, Jamaica's debt service ratio would move above the current 40 per cent of export earnings.

1/ The Jamaican dollar was devalued by 73 per cent between 1983 and 1985. In its memorandum to the IMF, the government says it is objected to further devaluation because planning by the business community would be increasingly difficult, prices would be distorted by anticipating further devaluations, leading to speculations for short-term Jamaican dollar gains and importers would eschew credit lines fearing exchange rate losses. As a substitute for devaluation, the government is planning to offer a tax rebate programme to meet the IMF's concerns about export competitiveness. However, the government has not ruled out the possibility of changes in parity during 1987-88.

The 1987/88 budget envisages further measures towards privatization, deregulation and wage restraint. The external sector is expected to record an improvement over the previous year owing to enhanced export competitiveness, higher tourism earnings and firmer bauxite and aluminium prices. Savings on the oil import bill are expected to reduce the trade deficit. The goal of reducing the budget deficit to 6 per cent of GDP is likely to be met.

Amidst positive signs of economic revival in 1987, the Jamaican economy faces high rates of unemployment and inflation. The annual rate of inflation was estimated at 22 per cent in 1986, while the labour profile showed the country's unemployment rate at 26-27 per cent Fundamental problems continue to overshadow efforts to diversify Jamaica's economic base.

2.1.2 Economic structure

Jamaica has a mixed economy, with the public sector playing an important role in development after a programme of democratic socialism between 1972 and 1980. Since then, however, the present administration has sought a larger role for the private sector.

Table 2.1 shows the structure of GDP during the period 1979-85. Agriculture, which accounts for around 9 per cent of GDP, continues to be a significant sector of the economy employing about a third of the work force - with production of bananas and sugar traditionally providing the most important source of employment. A large number of other crops include citrus, spices, cocoa, coffee, coconut and tobacco. Sugar is one of the principal export items, exports of which amounted to $57.3 million in 1983 and $43.5 million in 1984. Jamaica has found difficulty in meeting its EEC and US quotas in recent years; a production target of 220,000 tonnes was set for 1985, compared to the output of 197,000 tonnes in 1984. In the first half of 1985 production increased by 7.5 per cent, but export earnings fell by 30 per cent because of a fall in world prices. The share of agriculture in GDP fell from 7.3 per cent in 1979 to 6.6 per cent in 1983. A marked increase in the agricultural share of GDP in 1984 was partly due to the success of the "Agro 21" scheme which contributed to an overall 10 per cent growth in agriculture in 1984. The scheme aims at bringing over 250,000 acres of unutilized and underutilized land into cultivation to produce non-traditional crops such as peppers, pineapples, melons and flowers, mainly for the US and European markets. Increased production of coffee has also been a major thrust of the policy of agricultural diversification.

Table 2.1. Distribution of GDP by sector of origin, 1979-85 (selected years)
(percentage)

Sector	1979	1983	1984	1985
Agriculture, forestry and fishing	7.3	6.6	8.8	8.9
Mining and quarrying	14.6	4.1	6.2	5.2
Manufacturing	16.2	18.9	15.2	15.6
Other	61.9	70.4	69.8	70.3

Source: Economic and Social Survey of Jamaica, several issues.

Mining and quarrying contributed 5.2 per cent of GDP in 1985. Its contribution to employment is around 1 per cent. A sharp fall in its share of GDP during 1979-85 was largely on account of the fact that bauxite and alumina production has been hard hit by falling world demand with consequential reductions in production capacity and export earnings. Jamaica ranks as the world's third largest producer of bauxite, with bauxite reserves estimated at between 2 to 2.5 billion tonnes. Proven reserves are sufficient for 130 years' output at current rates of production.

The depressed world market for bauxite reduced output from 15 million tons of bauxite in 1970 to 7.7 million tons in 1983. Output increased slightly to 8.7 million tons in 1984 but resumed its decline in 1985, when production was estimated at 6 million tons. Net earnings from the industry in 1984 were $220 million, a fall of 14 per cent on the previous year.

A widely diversified manufacturing sector in Jamaica contributes a larger share of GDP than agriculture and mining. In 1983 the manufacturing sector accounted for 19 per cent of GDP. Following a 2.3 per cent increase in MVA in 1983 the manufacturing sector suffered a negative growth rate of 6.4 per cent in 1984, leading to a fall in its share of GDP to 15.2 per cent in 1984. Despite a further fall of 6 per cent in 1985, the manufacturing sector registered marginal increase in its share of GDP to 15.6 per cent as the mining sector declined more rapidly (e.g. bauxite production declined by 30 per cent) than the manufacturing sector in the same year.

The relatively high share of GDP contributed by other sectors is largely attributable to tourism-related services in Jamaica. As a result of Jamaica's natural beauty and established facilities, tourism is a major foreign currency earner. However, tourist arrivals have grown only modestly in recent years compared with other Caribbean destinations.

2.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

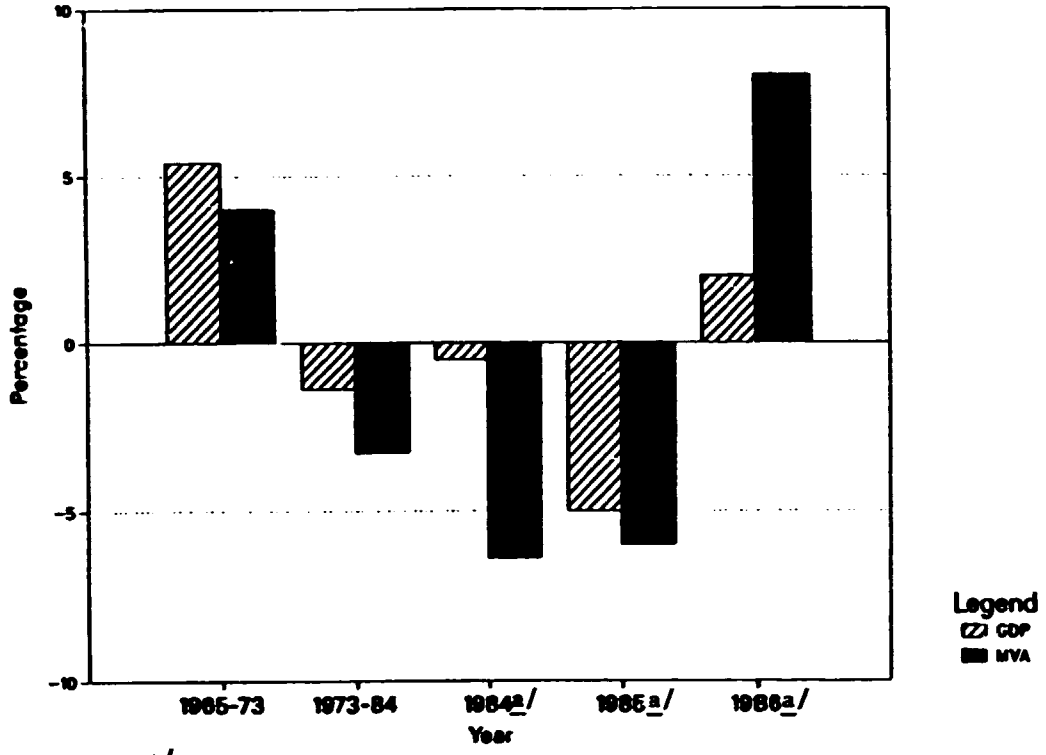
2.2.1 Overview of the manufacturing sector

Manufacturing in Jamaica is an expanding sector which encompasses a wide range of industries producing footwear, textiles, garments, electronics, plastics, furniture, construction materials, printing and packaging for the Caribbean region, US, Canada and EEC markets. In 1984 the manufacturing sector employed around one-fifth of the labour force. The textile sub-sector has been one of the most dynamic, with growth based on the opportunities under Item 807 of the USA Tariff Schedule. Textile industries are located mainly in the export processing zones of Kingston and Montego Bay. Employment in these industries grew from 6,500 in 1982 to 9,600 in 1985. A J$58 million new project is being envisaged by four Hong Kong-based textile companies situated in Kingston free zone. This project is expected to create up to 8,150 new jobs that could nearly double the textile labour force

The manufacturing sector in Jamaica has traditionally been based on the strategy of import substitution, but in recent years exports have been of increasing importance. Significant deregulation of the sector has taken place under the Structural Adjustment Programme agreed with the IMF. Notwithstanding various measures, including the relaxation of import licensing together with greater allocations of foreign exchange for imports of

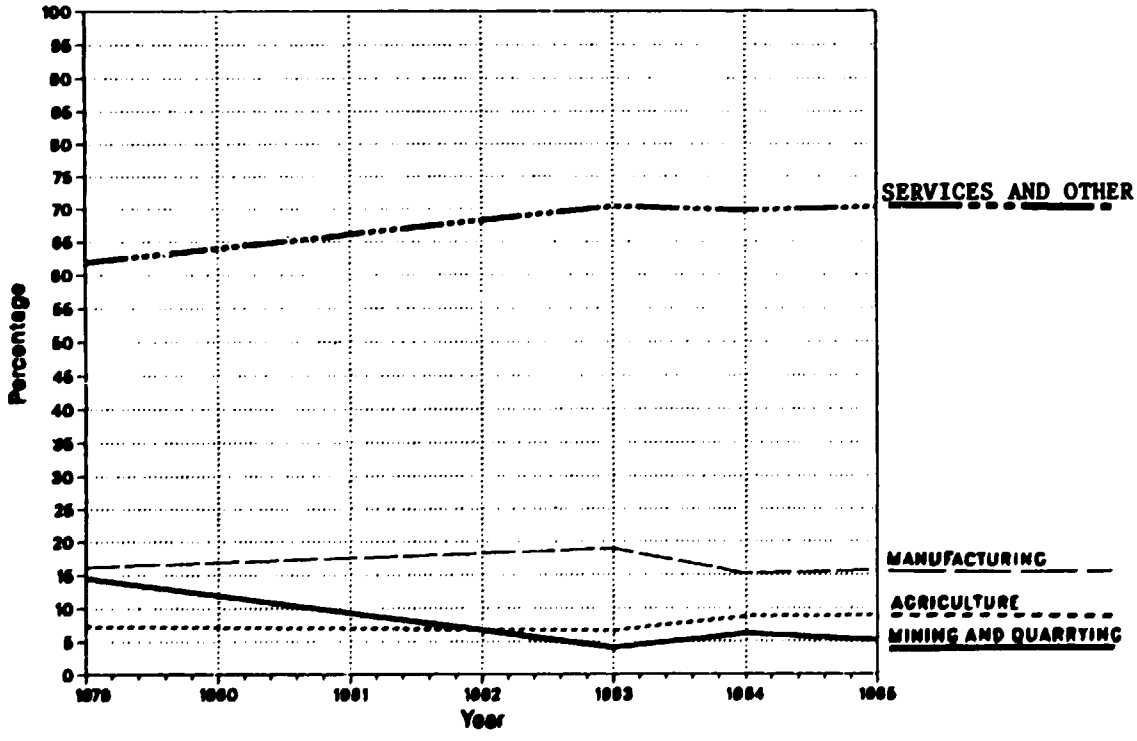
MANUFACTURING TRENDS

REAL GROWTH RATES OF GDP AND MVA, 1965-1986

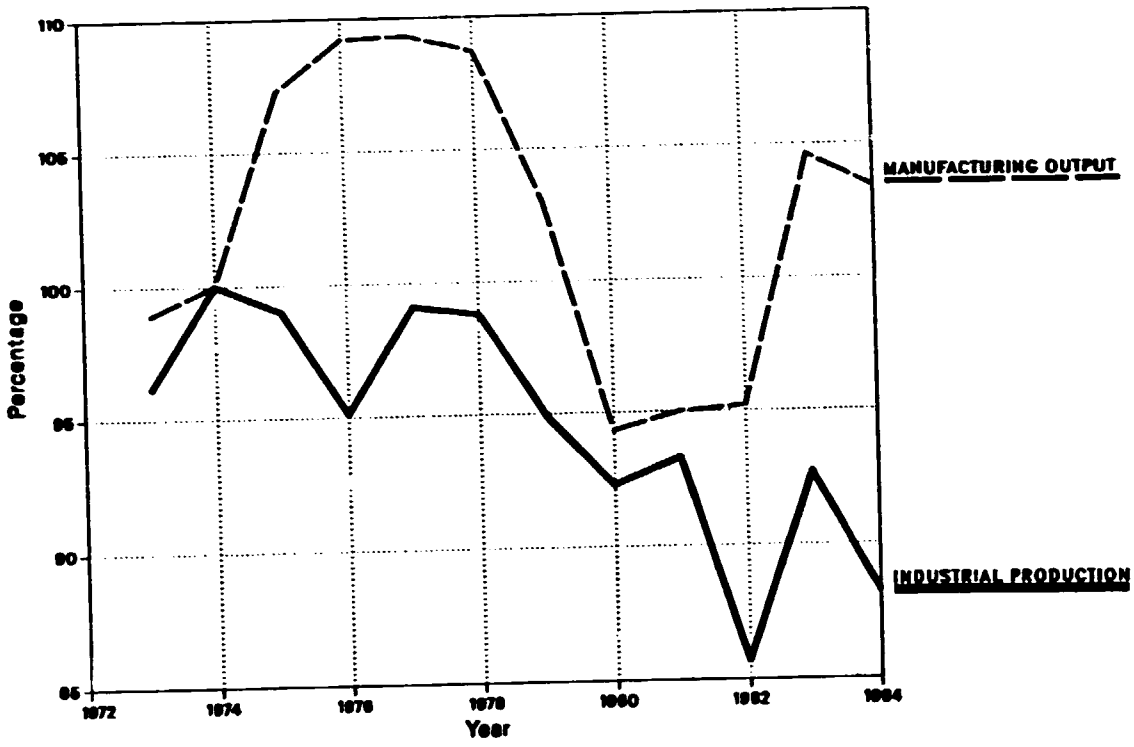


a/ Annual growth rate of manufacturing output.

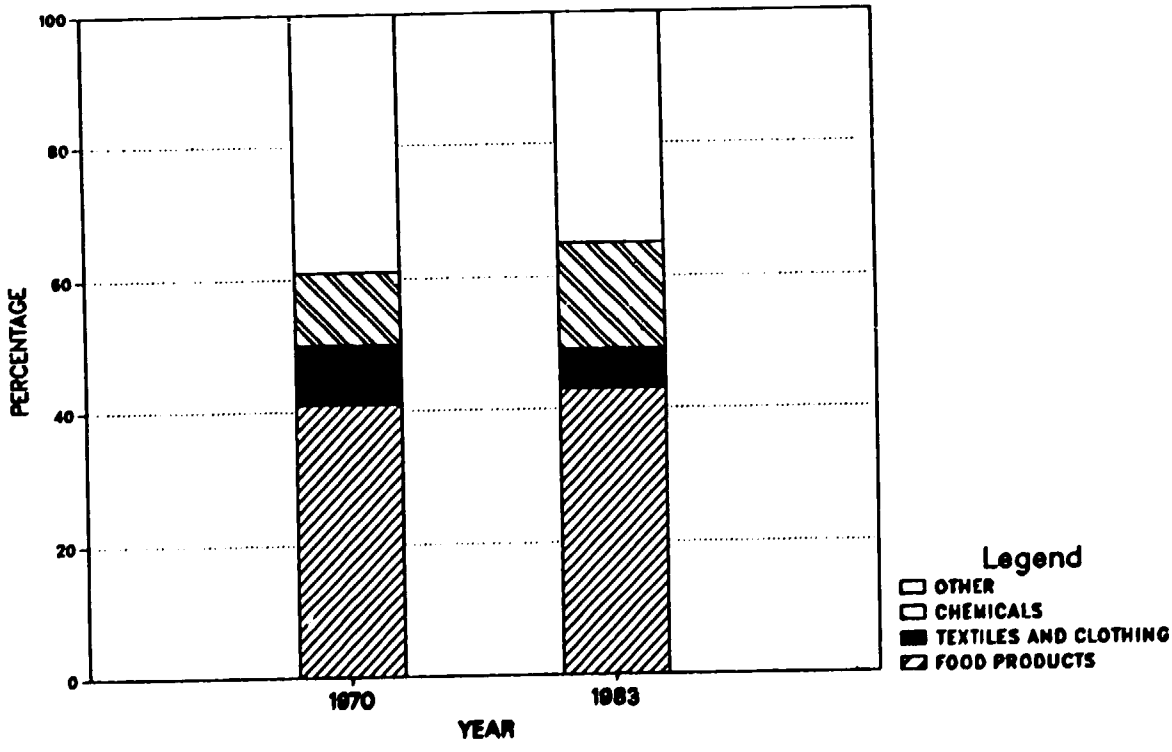
DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1979-1985
(In current prices)



INDICES OF INDUSTRIAL AND MANUFACTURING PRODUCTION, 1973-1984 (1974=100)

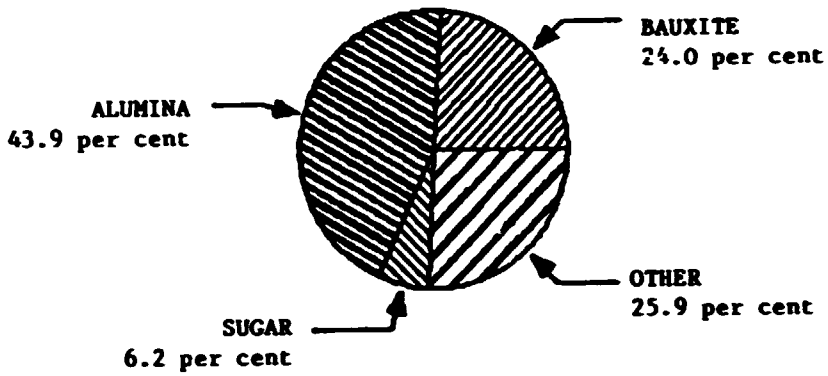


COMPOSITION OF MANUFACTURING VALUE ADDED, 1970 AND 1983 (PERCENTAGE)

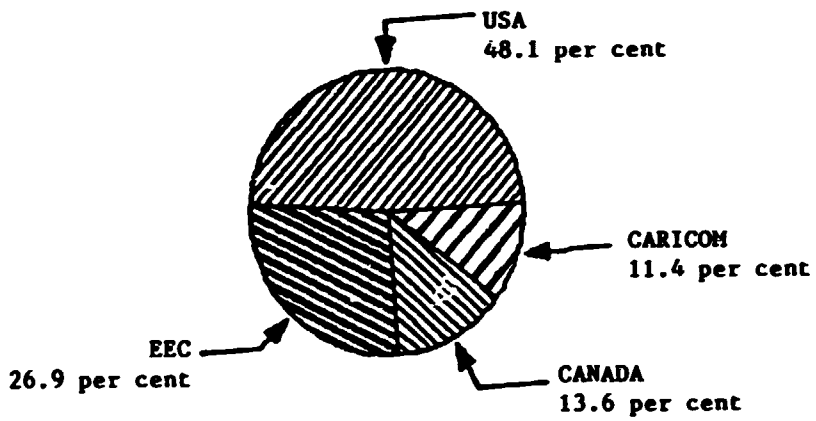


EXPORTS AND IMPORTS IN 1984

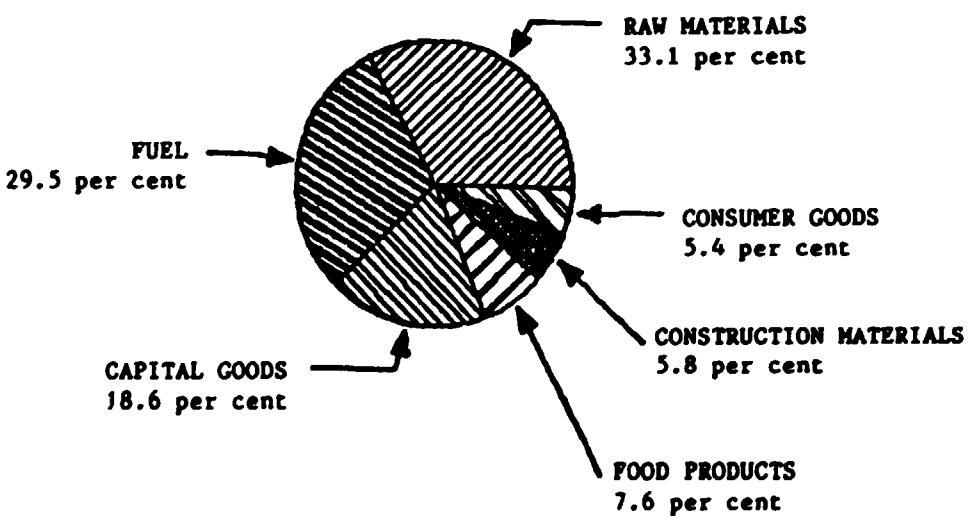
COMPOSITION OF EXPORTS



DESTINATION OF EXPORTS



COMPOSITION OF IMPORTS



industrial inputs, the growth and performance of the manufacturing sector has been uneven. Although Jamaica has received the largest single investment under the Caribbean Basin Initiative (CBI)[1/] - a $23 million gallons-a-year ethanol plant at Kingston, a joint venture of Tropicana Petroleum of California and Shell - CBI has not provided the expected stimulus to invigorate the Jamaican manufacturing sector.

2.2.2 Growth, structural change and performance

Table 2.2 displays the indices of both industrial and manufacturing production for the 12-year period ending 1984. The manufaccuring sector in Jamaica grew at an annual average rate of 4 per cent during 1965-73. The indices show a somewhat different behaviour of manufacturing and industrial production over the 1973-84 period (1974 = 100). After the 1974 yearly peak (102.2), the index of industrial production bottomed out (84) in the first quarter of 1982 - a year in which the bauxite sector registered a loss of 29 per cent. The Table reveals that industrial production never recovered anywhere near the level of the early 1970s. An overall downward trend existed until 1986. This was largely due to the sharp declines registered by the bauxite and alumina sector.

The picture that emerges from indices of manufacturing output is different. Manufacturing activities showed resilience between 1973 and 1978. Manufacturing indices showed the ability of the sector to recover when conditions allowed as for example through the increased availability of foreign exchange for spares and raw material parts. The production peak was reached in the second quarter of 1978 at a level of 118.3 (1974 = 100). In the following four years the manufacturing sector suffered loss of production. In 1980 the sector experienced a steep recession under the impact of foreign exchange shortages and domestic unrest, but showed some signs of recovery in 1981. After a fall in output in 1982, the sector rebounded in 1983 only to fall again in 1984. Despite this continued decline in the manufacturing output during the period of 1979-86, manufacturing activities have been undergoing a process of structural change. The share of food products in MVA increased from 41 per cent in 1970 to 43 per cent in 1983. The MVA share of chemicals increased from 11 per cent to 16 per cent during the same period.

Table 2.3 shows figures pertaining to physical output of selected manufactures during 1979-83. With the exception of fertilizer, diesel/fuel oil, cement and beer, 1983 production figures show the full extent of contraction of output when compared with 1979 level of output. Manufacturing production in 1984 showed mixed trends and uneven growth rates. Between 1983 and 1984 the processed food branch is estimated to have grown by 7.1 per cent, with large increases in the production of flour and cornmeal. Agro-based activities such as the production of sugar, rum and molasses fell some 4.1 per cent; other beverages fell by 9 per cent and cigars and beer showed the greatest falls. While apparel and sewn products grew rapidly, textiles and footwear as a whole declined. Chemicals and chemical products expanded by almost 4 per cent, but output of paints declined with the lack of construction activity; for similar reasons cement and steel production also declined.

1/ Within the framework of the US Caribbean Basin Initiative (CBI), which came into effect on 1 January 1984, Jamaica is a beneficiary, with access to US aid funds as well as to duty-free entry into the US, for a period of 12 years, on a wide range of manufactured exports of Caribbean origin.

Table 2.2. Indices of industrial and manufacturing production, 1973-84
(1974 = 100)

Year		Industry	Manufacturing	Year		Industry	Manufacturing
1973	I	94.5	97.7	1979	I	90.4	94.7
	II	96.7	100.4		II	92.7	99.9
	III	98.3	101.6		III	93.2	100.7
	IV	94.9	96.1		IV	103.4	116.5
Average		96.1	98.9	Average		94.9	103.0
1974	I	97.4	98.3	1980	I	96.3	103.8
	II	102.2	102.2		II	89.5	87.7
	III	101.4	100.3		III	91.6	92.4
	IV	99.0	99.2		IV	91.9	93.4
Average		100.0	100.0	Average		92.3	94.3
1975	I	101.0	101.6	1981	I	93.4	93.0
	II	102.6	113.3		II	92.0	91.2
	III	96.5	105.5		III	95.2	98.3
	IV	96.0	108.6		IV	92.7	97.5
Average		99.0	107.3	Average		93.3	95.0
1976	I	96.9	109.7	1982	I	84.0	94.2
	II	90.1	108.7		II	85.2	91.6
	III	96.0	110.1		III	89.5	99.9
	IV	97.4	108.1		IV	84.0	95.1
Average		95.1	109.2	Average		85.7	95.2
1977	I	99.0	110.8	1983	I	94.1	109.1
	II	96.1	105.2		II	92.7	105.3
	III	98.6	108.5		III	93.9	104.8
	IV	102.6	112.8		IV	90.1	99.2
Average		99.1	109.3	Average		92.7	104.6
1978	I	97.7	105.7	1984[a/]	I	90.9	103.1
	II	105.2	118.3		II	90.3	105.9
	III	96.8	106.4		III	84.0	100.9
	IV	95.2	100.5		IV	87.8	103.8
Average		98.8	107.7	Average		88.2	103.4

Source: Planning Institute of Jamaica, Quarterly Economic Report, Oct.-Dec. 1984/85, Vol. 1, No. 3, p.42.

a/ Provisional.

Table 2.3. Production of selected manufactures, 1979-84

Product	Unit	1979	1980	1981	1982	1983	1984
Sugar	'000 tons	279	228	202	192	195	185
Rum	'000 tons	3,279	3,279	3,715	3,361	2,696	3,123
Molasses	'000 tons	108	101	79	99	93	89
Beer	'000 gal.	11,326	13,993	12,379	12,477	12,490	10,388
Cigarettes/ cigars	millions	1,412	1,309	1,269	1,435	1,378	1,280
Textiles	'000 yards	6,700	4,979	3,448	3,534	3,555	2,125
Cement	'000 tons	222	142	162	208	273	257
Gasoline	'000 gal.	59,156	50,388	44,054	55,476	43,545	25,573
Diesel/ fuel oil	'000 gal.	156,383	174,944	108,995	148,141	164,560	103,485
Fertilizer	tons	30,279	28,129	24,460	18,977	36,701	32,954

Source: Planning Institute of Jamaica, Economic and Social Survey of Jamaica, 1984.

In 1984-85 low domestic and regional demand, high interest rates, and new duties on imported raw materials, forced a reorientation of business activities which adversely affected the sector's performance, particularly in footwear and furniture. In 1984 exports of manufactured items amounted to US$148 million, a 6 per cent fall on the previous year - with the only exception of apparel and sewn products which accounted for much of the growth in exports of miscellaneous manufactures; this resulted from a number of additional producers of garments establishing new production capacity in the Kingston Free Zone and the expansion of '807'[1/] manufacturing by Jamaican apparel producers. Exports of manufactured items to CARICOM during 1984 fell by 37 per cent to US$52.5 million, largely as a result of the protective attitudes adopted by a number of member countries. However, there was a 17 per cent increase in the direction of trade from the CARICOM to third countries, as producers began to seek extra-regional markets.

Early in 1985 prospects for exports of bauxite/alumina deteriorated with the ending of the special sales arrangements of 1984 and the temporary closure of the ALCOA alumina plant. As a result, gross earnings from bauxite/alumina fell by J$200 million in 1985, with profound implications for the economy as a whole. The government sought to reduce public sector consumption under a severe austerity programme, debts were rescheduled and additional long-term finance was raised.

In 1985 there were 22 exporting companies engaged in the production of processed goods for exports, five of whom accounted for over 50 per cent of exports. Items such as jams, jellies, marmalade and sauces earned US$12.9 million export earnings. Apart from quality control systems and market intelligence and research, top quality packaging is an indispensable

1/ Article '807' of the US incentive tariffs provides that manufactures may be sent abroad for the assembly and return to the US, and that the returned articles can obtain access at reduced (or zero) customs duties.

first step to sharpening the industry's competitive edge. With a few exceptions most packaging has non-competitive image abroad because of inappropriate materials and printing.

The garment industry has been showing significant growth since 1983, largely due to the mutually beneficial scheme for exporters to the US. In mid-1985, there were some 148 garment manufacturing companies; 92 firms were exporters employing over 12,000 persons. Exports in 1984 amounted to US$30.4 million and for 1985 export earnings stood at US$56 million.

Some 2,000 workers were employed by companies involved in the furniture industry in 1985. The industry has an estimated earning capacity of J$20 million per annum. Initiatives are under way to explore new opportunities and expansion potential by expanding plant capacity.

The government has placed increasing emphasis on employment generation, particularly for the rural poor, and has supported the development of small enterprises and handicrafts. The average income for some 5,000 craft vendors seems to have risen from J$10 to J$100 per week during 1981-86. A wider product range, improved designs and product finish are now evident. However, deficiencies in the management aspects persist.

Despite uneven growth patterns recorded by manufacturing firms and 15 per cent fall in manufactured exports in recent years, manufacturing activities have been expanding. Since 1980 a considerable number of new projects have attracted support from local and overseas investors, particularly those oriented to export production. Sixty-two new manufacturing projects with a capital outlay of J$69.03 million were implemented in 1984 - a threefold increase over 1983. Capital investment grew substantially in three sub-sectors: food processing (+324 per cent); textiles and clothing (+1794 per cent); and chemicals and chemical products (+770 per cent).

2.2.3 Manufacturing problems and prospects

Prospects for future growth of manufacturing remain constrained by depressed domestic demand, high cost of utilities, import competition, rising cost of imported inputs, high interest rates and high operating cost as well as falling CARICOM trade.

The rapid depreciation of the Jamaican dollar from 2.15 to 5.50 per US$1 between 1982 and 1987 has been accompanied by increased inflation; while the consumer price index increased by 31 per cent, wages had increased by only 15 per cent with a marked impact on the purchasing power of the poor. This large devaluation also resulted in high cost of imported inputs. In the early 1980s the CARICOM market continued to suffer from trade restrictions and payments problems, and Jamaican exports to regional markets fell by 40 per cent.

Although 250 new companies have started production since 1980, average investment is small. The government envisages industrial restructuring to make the manufacturing sector one of the main engines of growth in Jamaica. This has involved a transformation from a highly protected and non-export-oriented sector, which hitherto looked only to domestic and regional markets, to one which predominantly serves very much larger and highly competitive markets, such as the US and the EEC. The unification and managed floating of exchange rates in 1983 and subsequent devaluations were

designed to achieve favourable results that are beneficial to all export sectors and to the manufacturing sector in particular.

In recent years the government's priority has been to remove the foreign exchange and bureaucratic constraints to industrial development, and to improve the efficiency of local manufacturers. New investment in industrial capacity has been strongly encouraged, particularly in those activities which are earners or net savers of foreign exchange; significant employers of labour; contributors to domestic income, linkage industries; and utilizers of local raw materials.

Competition from imports remains intense. While imports of some items are still controlled by license, no major policy shifts are likely. Effective advertising and competitive pricing should be part of the survival strategies for producers for the domestic market which discriminates heavily against locally produced goods. Since the CARICOM market remains severely depressed, firms should continue to explore all possible export opportunities outside the sub-regional market. Low wage rates have made Jamaica a favourable place for offshore assembly, particularly for garment assembly.[1/] US liberalization of its Caribbean Basin Initiative could be of increasing importance. The government is attempting to raise J$150 million for an emergency factory building programme for new factories which could provide 15,000 jobs. If the manufacturing sector is not hit by any unexpected shocks, positive growth may resume by mid-1987.

2.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

2.3.1 Industrial policies and institutions

The wide variety of industries established in Jamaica under a series of development policies until 1980 have enjoyed considerable protection from competition and have limited their horizons to domestic and regional markets. Thus the manufacturing sector has traditionally been based on import substitution. Since 1981, the manufacturing sector has been undergoing a transformation from inward- to outward-oriented activities. The government continues to pursue a strategy based heavily on the expansion and diversification of exports, particularly non-traditional exports. Garments, furniture and processed food are among the sectors that continue to show potential for growth.

The government has sought to establish a number of export-oriented industries, utilizing foreign capital and managerial skills to gain access to overseas market channels. Most progress has been made in the textile and garment branches. Many of these enterprises have taken advantage of free trade zone facilities and related fiscal incentives provided by the government to attract labour-intensive export industries. The government attempts to integrate these enclave activities into the local economy as much as possible and to secure the maximum benefits from their presence. It has also been

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1/ In April 1986, Jamaica was offered substantially higher "access levels" to the US market for a two-year period beginning in September 1986, provided the finished garments have been produced from cloth made in the US. According to estimates export earnings could rise to over US$80 million in 1987, up from US$56 million in 1985.

government policy to seek to utilize local raw materials for manufacturing as much as possible. The agro-industrial, food processing and wood-working branches are important in this regard.

Overseas investors are welcome to participate in a large range of productive projects and industries, and encouragement is given to investment in areas which provide a significant contribution to output, export, and employment. Preferred activities are those which are earners or net savers of foreign exchange; significant employers of labour; worthwhile contributors to domestic income, linkage industries; and utilizers of local raw materials.

Jamaica is currently undertaking investment promotion in the following areas: alcoholic beverages, aquaculture, apparel, chemicals, electronics, food processing, footwear, furniture, handicrafts, pharmaceuticals, plastics, sporting goods and textiles.

Implementation of a particular project must be such as to permit the labour content of the project to contribute meaningfully to the employment creation effort. The local value added contribution of the project (influenced by the use of local labour as well as local raw materials and services) is an important determinant of the quantum of incentives afforded to the project, especially with regard to the period of tax holiday. Because of Jamaica's strong export thrust, the net foreign exchange earning or saving effect of a project is vital, and additional incentives are available for projects which are export-oriented. Emphasis is also placed on supporting the creation of inter- and intra-industry integration. Over 200 foreign firms operate in Jamaica, either in joint ventures or else as wholly-owned operations. Substantial progress has recently been made in the industrial sector in attracting foreign investors seeking to supply the North American and European markets from off-shore, enclave industries.

Industrial incentives

The Industrial Incentives Act of 1956 (and a series of amendments) classifies five types of enterprise which qualify for tax holidays. These are:

Category	Value added	Max. tax holiday
Group I	50 per cent	9 years
Group II	25-50 per cent	7 years
Group III	10-25 per cent	5 years
Enclave		10 years
Capital-intensive		10 years

The length of tax holiday for the first three categories depends on the amount of value added in Jamaica, efficiency in production, contribution to exports and viability. The fourth category covers enclave activities, which produce exclusively for export outside the CARICOM region. Finally, capital-intensive industry, where capital investment is not less than J$9.5 million, is also granted a tax holiday.

The definition of local value added under the CARICOM fiscal incentives provisions is:

sales value of finished or intermediate goods minus a) cost of imported raw materials, components, parts, fuel and services; b) wages and salaries paid to foreign nationals; c) profits and dividends distributed to non-residents; d) interest, management charges and other income payments to non-residents (including companies; and e) depreciation of imports of plant, machinery and equipment.

Companies which qualify for tax holidays are allowed to import into Jamaica duty-free all equipment, machinery, spare parts and raw materials used in production.

Special export scheme

For companies not qualifying for tax holidays, there is a scheme for tax relief on the revenue earned from the sale of approved export products. The products must be sold outside the CARICOM region.

Export profits as percentage of total production	Tax reduction
10-20 per cent	25 per cent
21-40 per cent	35 per cent
41-60 per cent	45 per cent
61 per cent or more	50 per cent

Industrial estate programme

The Jamaica Industrial Development Corporation (JIDC) has six industrial estates in the parishes of Kingston, St. Andrew, St. Catherine, St. Thomas, St. James, and Hanover. Other manufacturing facilities are provided for small enterprises in Kingston, St. Andrew, St. Catherine, Clarendon, Portland, St. James, and Manchester. JIDC provides factory space and electrical services for prospective investors. Rent is negotiable and leases extend for a period of five years.

Factory construction

A company qualifying for incentives under the Industrial Incentives Act may find it necessary to build its own factory. The factory may be constructed by a licensed company (approved builder). The approved builder is required to enter into a lease with the company for at least five years and must retain ownership of the factory for at least 15 years, unless during this period the approved builder sells the factory to the company, to another approved builder, or to a person approved by the Minister of Industry and Commerce. If the approved builder meets these requirements, he becomes entitled to the following benefits:

a. Duty-free import of materials for factory construction, where comparable locally manufactured materials are not available, and

b. Tax relief for 15 years on the operating income from leasing the factory or from profits made from the sale of the factory.

Bauxite and alumina encouragement

The Bauxite and Alumina Industries Encouragement Act of 1967 exempts recognized producers from payment of customs duty on plant, machinery,

building materials, tools, petroleum fuel, fuel oil, diesel oil and other material required for the mining, transport, processing, and shipment of bauxite and alumina. The exemptions are usually for a period of five years for non-fuel items and ten years for petroleum products. Bauxite and alumina companies are also granted reduced levy rates for production in excess of 85 per cent of their capacity.

Export free zones

The government of Jamaica operates free zones in Kingston and Montego Bay to encourage production for export. Another free zone is soon to begin operations in Spanish Town. Facilities provided include those for loading and unloading, water, electricity, sewage, and telephone. Factories are available for rent with an average size of 6,500 sq.feet and at an average rate of $3.50 per sq. foot per annum. These zones offer several incentives to investors operating there such as:

1. An approved manufacturing enterprise operating within a free zone is granted total relief from income tax in respect of profits or gains earned from such manufacture.

2. An approved enterprise in a free zone not engaged in manufacture but engaged in activities involving international trading in products is granted relief from income tax in respect of profits or gains earned from such activities.

3. An approved enterprise may import into the free zone the following items free of customs duty:

   - capital goods, consumer goods, raw materials and other articles for use in connection with an approved activity;

   - building materials, tools, plant, machinery, pipes, pumps, conveyor belts, and other articles for the construction, alteration, reconstruction, extension or repair of premises in the free zone or for the equipping thereof.

4. Approved enterprises are not subject to import licensing for imports into the free zone; neither are they subject to export licensing in respect of sales to the CARICOM region and other foreign countries.

5. An approved enterprise operating in a free zone may move funds related to that enterprise into and out of the free zone without having to obtain permission of the Bank of Jamaica. However, it may not borrow funds from commercial banks or other sources within the customs territory of Jamaica without Bank of Jamaica permission.

Repatriation of profits

Full repatriation of profits is granted for all investments approved by the Central Bank.

2.3.2 Resources for industrial development

Human resources

The total labour force stood at 971,400 in 1984. The sectoral distribution of GDP and employment in 1985 reveal some striking contrasts. While the agricultural sector accounts for some 9 per cent of GDP, it employed over 33 per cent of the work force. Mining on the other hand produced 5.2 per cent of GDP with about 1 per cent of the work force. Manufacturing accounted for over 15 per cent of GDP and provided 11 per cent of employment. This results from some very large differences in value added per employee between the more modern, capital-intensive sectors and the more traditional ones.

The government's strategies for human resource development seek to correct the imbalance between oversupply of unskilled workers and deficiency of skilled workers, technicians, scientists, managers and professionals. A basic reason for this imbalance is the inability of the formal education system to produce a reservoir of trained personnel to meet the manpower needs of the manufacturing sector. During the Third UNDP Country Programme (1982-86) some 7,000 Jamaicans benefitted through in-service training, workshops, overseas fellowships and study tours. A comprehensive manpower study pertaining to education and human resource development is nearing completion. It is intended to provide the establishment of mechanisms through which all manpower-related activities could be co-ordinated and monitored continuously. It focuses on the adjustments necessary to adapt labour resources to changing job requirements, with a view to enhancing forward planning so that supply could be influenced in line with projected demand.

Agricultural resources

Export crops include sugar cane, bananas, citrus, coconuts, coffee, cocoa, pimento and other spices. Sugar cane accounts for a major share of agricultural production and is the major export crop. There is a small number of large estates, more than 20 co-operatives and over 20,000 independent farmers, who all supply 12 processing factories. Bananas have been increasingly consumed domestically, so much so that export quotas have frequently gone unfulfilled in recent years. Citrus fruits covered 15,600 acres in 1979 and production in that year amounted to 70,000 tons, but yields were depressed by improper cultivation and poor management practices, and shortages of inputs. Citrus crop earnings rose by 5 per cent in 1985. In 1986 earnings recorded a 10 per cent increase over 1985. Coffee is primarily grown on lower quality soils in the foothills and in the higher level mountains and is one of the most important export crops (the other being cocoa) for the small farmer.

Crops for domestic consumption include root crops and tubers, vegetables, condiments, pulses, cereals and fruits. Livestock products include meat, milk and eggs, although poultry production is heavily dependent on imported foodstuffs. The fisheries sub-sector incorporates both freshwater, inland fisheries as well as off-shore, deep sea fishing but is able to meet only 50 per cent of domestic requirements. Some 24 per cent of Jamaica's land area is classified as natural forest; in addition there have been both small- and large-scale plantations of Caribbean pine in the last three decades, although domestic production has not as yet substituted for imports.

Mineral resources

Jamaica's bauxite reserves are estimated at over 2 billion tons. Contributing over 50 per cent of merchandise exports, 30 per cent of government revenues, and 15 per cent of GDP. The mineral sector thus plays a key role in the economy. In 1980 almost half of the bauxite production was reduced to alumina locally by three of the five multi-nationals operating joint ventures with the government. In 1986, 5.8 million tons of bauxite was produced.

Energy

Jamaica is not well endowed with indigenous energy sources; there are no coal deposits, minimal hydro-electric potential and no installed capacity; an oil exploration programme has produced no positive results. There is a small refinery facility in Kingston with a capacity of 32,000 barrels per day; and Jamaica has a further allocation of 32,000 barrels per day under the San Jose oil facility.

Total energy consumption in 1980 was 16.8 million barrels of fuel equivalent. Commercial usage of energy is around 92 per cent, more than half of which is utilized by the bauxite/alumina sub-sector. Ninety-one per cent of energy needs are satisfied by imported oil and oil products; the remainder is supplied by bagasse, which is utilized for steam generation. In the absence of coal, electricity is the main source of power; 2,400 gwh were generated in 1984.

Finance

Jamaica has full range of banking facilities and services, which operate under the supervision of the central bank. The seven commercial banks are the main source of short- and medium-term finance and are the principal deposit bakers. Longer term credit, mortgages and term loans are provided by trust companies and merchants banks. A national development bank and an agricultural development bank have recently been established, while a privately-owned development bank became operational in early 1985, and control of Jamaica's third largest bank passed into local hands in accordance with the government's long-term policy of Jamaicanization of financial services.

Restrictive credit policies initiated in 1984-85 continued through 1986, with the exception of a few credits fine-tuned to prevent production from being further constrained. Ceilings on commercial bank lending were lifted for raw materials and capital gross purchases. There are signs of improvement in access to export credit.

2.3.3 The role of technical co-operation in industrial development

During the Third UNDP Country Programme (1982-86) the outlay for development assistance was reduced from US$7.5 million to US$4.1 million, but the government's cost sharing contribution of J$8.9 million maintained the Programme at its original level. Bilateral donors contributed additional resources to the tune of US$2.1 million. In the sectoral allocation of resources the industrial sector received 29 per cent of total outlay as against the original planned 14 per cent allocation for industry. A Packaging and Plastics Centre has been developed within the Jamaica Bureau of Standards

to strengthen and support export-oriented industries by providing test facilities and packaging standards. Under a UNIDO-executed project hundreds of local entrepreneurs benefitted from public awareness and training programmes. Jamaica and UNDP have collaborated in the provision of advisory services and training abroad in the areas of chemical analyses and testing of glass containers. During the 1982-86 UNDP Country Programme Cycle, a feasibility study on energy-saving device was also launched with initial assistance from the UNDP and UNESCO.

Selected branches that have the potential for growth along the path of export diversification could scale new heights in their growth patterns if specific constraints are addressed through technical co-operation projects.

The garment industry needs technical assistance in market intelligence studies and quality control systems. The furniture industry could be restructured with the aid of technical assistance that could enable the industry to catch up with the latest developments in the industry, including design, wood and leather treatment and collapsible packaging. Technical assistance is required by the food industry for the devising, establishment and maintenance of quality control systems and market research.

Technical assistance inputs could be directed towards certain crucial areas. Firstly, there is a need to monitor the effectiveness of industrial development policies and instruments so as to improve their efficacy and secure maximum benefit from the limited resources available. Secondly, there is a need to support and strengthen the determined national efforts to promote industrial investment both by foreign and indigenous entrepreneurs. This involves both project identification and the upgrading of managerial and technical skills in promotional agencies, particularly in those support activities (post feasibility study) designed to facilitate project implementation. Thirdly, there is a pressing requirement to upgrade financial and technical skills in existing enterprises so as to improve their productivity and competitiveness and to help their reorientation to the needs of extra-regional markets. Much of this assistance is required at factory level in both product development and training of supervisors and the work force.

APPENDIX 2.A

Manufacturing projects seeking external assistance[a/]

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
JAM/011/V/84-10	Disposable food containers	Aluminium containers: 80/min. Styrofoam containers: 48/min.	135,000	Equity participation Loans Access to foreign markets
JAM/012/V/84-10	Gypsum fibreboard	172.8 million sq. ft.	21,960	Equity participation Loans Sale of technology
JAM/013/V/84-10	Stonecraft and modular tiles	Expansion of stonecraft capacity; quarry production of 1,000 cu. m/year of marble and stone	1,060,000	Equity participation Loans Sale of technology
JAM/014/V/84-10	Profiles, angles and other bars	Minimum production of 1,000 tons/month	1,518,000	Joint venture Equity participation Loans Technical expertise
JAM/015/V/84-10	Iron alloy castings	Pumps, valves, etc. mainly for the bauxite, aluminium, cement, glass and sugar industries; 1,540 tons/year	625,000	Equity participation Loans
JAM/016/V/84-10	Gardening implements	Machetes: 100,000/year Shovels: 50,000/year Wheelbarrows: 50,000/year	825,000	Equity participation Loans Sale of technology Access to foreign markets
JAM/017/V/84-10	Metal office furniture	n/a	100,000	Access to foreign markets Subcontracting

APPENDIX 2.A (cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
JAM/018/V/84-10	Liquified propane gas	25 lb. cylinders: 30,000/year 100 lb. cylinders: 20,000/year	420,000	Equity participation Loans Sale of technology Access to foreign markets Raw material supply
JAM/019/V/84-10	Power and telephone sentries	12,500/year (minimum)	76,000	Equity participation Loans Access to foreign markets
JAM/020/V/84-10	Precipitated calcium carbonate	Precipitated calcium carbonate for use as a filler in paints, plastics, paper, etc. 8,000 tons/year	4,059,000	Equity participation Loans
JAM/021/V/84-10	Cassava processing	Cassava flour: 8,400 tons/year Cassava starch: 8,750 tons/year	1,843,000	Equity participation Loans Sale of technology
JAM/022/V/84-10	Dry coconut processing	Clean oil: 3,750 tons/year Felt: 3,750 tons/year Hard board: 7,500 tons/year Coconut flour: 2,500 tons/year	1,500,000	Equity participation Loans Sale of technology
JAM/033/V/84-10	Castor oil processing	Processing of 60,000 tons/year of beans to produce 12.3 million gallons/year of castor oil	3,900,000	Equity participation Access to foreign markets
JAM/034/V/84-10	Cassava starch	3,120 tons/year	551,000	Equity participation Access to foreign markets
JAM/035/V/84-10	Hand crafted wooden furniture	375 pieces/year	122,000	Equity participation Access to foreign markets
JAM/036/V/84-10	Rattan furniture	Chairs, sofas, tables, etc. 13,000 pieces/year	452,000	Equity participation Access to foreign markets

APPENDIX 2.A (cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
JAM/037/V/84-10	Wooden furniture	Bookcases: 20,800/year Wall units: 1,100/year Pedestal desks: 2,720/year	1,783,000	Equity participation Access to foreign markets
JAM/038/V/84-10	Recycling of used lubricating oil	Blended oil: 1,210,000 kg/year Gas oil: 147,400 kg/year	1,140,000	Equity participation Loans Access to foreign markets
JAM/039/V/84-10	Chinaware	585 tons/year	1,000,000	Equity participation Access to foreign markets
JAM/040/V/84-10	Glass kitchen ware	7,800 tons/year	8,600,000	Equity participation Access to foreign markets
JAM/041/V/84-10	Ceramic tiles	800 tons/year	3,575,000	Equity participation Access to foreign markets
JAM/042/V/84-10	Wood shaving and cement slabs	760 tons (714,250 sq. ft.)/year	396,000	Equity participation Access to foreign markets
JAM/043/V/84-10	Watch bracelets	125,000 dozen/year	621,000	Equity participation Access to foreign markets
JAM/044/V/84-10	Stuffed toy animals	650,000/year	1,035,000	Equity participation Access to foreign markets
JAM/045/V/84-10	Plastic dolls	555,500/year	1,680,000	Equity participation Access to foreign markets

a/ This list includes industrial projects in Jamaica for which foreign co-operation, such as joint venture or other partnerships, acquisition of technology, management expertise and marketing assistance, is sought. Enterprises interested in the possibility of participating in any of these projects can obtain more detailed information, including the name and address of the sponsor, from UNIDO Investment Promotion Service.* This information ususally takes the form of a standard industrial investment project questionnaire. Copies of studies, when these are available, may then be obtained from the project sponsor. UNIDO does not accept responsibility for accuracy or completeness.

* = Vienna.

APPENDIX 2.B

Leading companies, 1987
(in million US$)

Rank	Company	Type of business	Sales/ turnover	Net profit/ (loss)	Net Assets	Employees	Ownership
1	Petrojam	Oil refining	200.0	1.2		300	S = 100%
2	Grace Kennedy	Food w/sale, distribution	154.5	3.0	22.7	2,000	L = 100%
3	Jamaica commodity Trading Co.	State importing arm	146.5	(0.4)	5.2	150	S = 100%
4	Jamaica Public Service Co.	Utilities	144.4	8.0		700	S = 100%
5	Esso Standard Oil	Distribution	142.2		13.6	150	F = Exxom. US
6	Air Jamaica	State airline	114.9	(6.1)			S = 100%
7	Alcan	Bauxite mining	105.7		108.5	1,000	F = Aluminium Co. of Can
8	Besnoes & Geddes	Breweries	103.3	4.2			
9	Seprod	Oils, fats, cereals	85.0	2.2	33.1	900	L = 100$
10	Jamaica Banana Producers	Bananas, marketing	81.9	4.1			
11	Industrial Commercial Developers	Manufacturing, construction	67.9	1.5			
12	Carreras Group	Cigarettes, tobacco	60.7	1.9			F = Rothmans Int, UK
13	CAP	Bauxite mining	52.0		40.0	900	S = 100%
14	Jamaica Flour Mill	Flour refining	44.9	4.1		175	L = majority holding F = Tillsbury, US
15	T. Geddes Grant	Distribution, export	39.0	0.3	36.6	315	
16	Jamaica Cement Company	Cement	36.3			150	S = 100%
17	Wray & Nephew	Rum distillers	34.5	1.6	27.3		
18	Jamaica Telephone Company	Utilities	33.2	4.1		500	S = 100%
19	Pan Jamaica Investment	Retail, food processing	31.3				
20	Lascelles De Mercado	Pharmaceuticals, distribution	27.3	2.5			
21	Jamintel	Telecommunications	20.0	5.1			S = 51% F = 49% (CAW, UK)
22	National Continental Corporation	Bread, biscuits	18.2	0.5		450	L = 100%
23	Goodyear Jamaica	Tyres	16.5	1.3			F = Goodyear Tyre, US

APPENDIX 2.8 (cont.)

Rank	Company	Type of business	Sales/ turnover	Net profit/ (loss)	Net Assets	Employees	Ownership
24	Gleaner News paper	Printing, publication	14.2	0.3			
25	Gillette	Manufacturing	11.8		2.7	100	
26	West Indies Glass	Bottling	10.4	1.4			L = 100%
27	Universal Stores	Distribution	9.4		5.4	300	
28	Berger Paints Jamaica	Paints manufacturing	8.9		3.3	300	F = Berger, US
29	Alkali	Manufacturing distribution	8.6		6.0	900	L = 100%
30	Courts	Furniture	8.6	1.0			
31	Colgate Palmolive Jamaica	Manufacturing	8.4		3.6	300	F = Colgate, US S = Minority holding
32	Berec	Manufacturing	8.1		1.8	100	
33	Wisynco	Synthetics manufacturing	6.9		5.1	900	L = 100%654 CMP Industries Manufacturing 5.9
35	Pegasus Hotels	Tourism	5.7				S = majority holding F = Trust House, UK

Source: South, April 1987.

S = State
L = Local
F = Foreign

APPENDIX 2.C

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO
JAMAICA

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/INFR	(31.3.1)	IS/JAM/74/005	Technical assistance on the establishment and organization of a trans-shipment and industrial free zone complex.
IO/INFR	(31.3.L)	RP/JAM/85/001	Project formulation and technical consultation re-follow to DP/JAM/81.002, handicrafts development
IO/IIS/INFR	J12101	UC/JAM/84/190	Preparatory assistance for upgrading standards information management systems to meet the requirements of GATT/ISONET
IO/IIS/INFR	J12103	DP/JAM/81/002	National planning and development of small industries and handicrafts
IO/FCTY	(31.4.E)	SI/JAM/81/801	Assistance to Jamaica National Export Corporation
IO/TRNG	(31.5.B)	RP/JAM/82/001	Training in technology and testing of construction materials
IO/IIS/FEAS	J12516	SI/JAM/84/801	Fact-finding mission for the establishment of a caustic soda plant
IO/AGRO	(30.6.01)	DP/JAM/73/009	Management and development adviser in jute goods manufacture
IO/AGRO	(30.6.00)	IS/JAM/71/804	Plant servicing and maintenance engineering expert
IO/AGRO	(30.6.03)	IS/JAM/74/001	Assistance to the leather industry
IO/AGRO	(30.7.02)	IS/JAM/74/008	Survey of packaging industry

The completed projects (cont.)

JAMAICA

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/AGRO	(31.7.A)	SI/JAM/77/801	Assessment of existing paper and particle board industries
IO/AGRO	(31.7.B)	DP/JAM/72/007	Management and training services to textile industry
IO/T/AGRO	J13101	UC/JAM/86/033	High-level advice to the wood furniture sector
IO/T/AGRO	J13104	SI/JAM/85/801	Assistance in the vegetable tanning of goat skins
IO/T/AGRO	J13105	DP/JAM/77/008	Packaging research and testing development
IO/MET	(31.8.A)	SI/JAM/81/802	Adaptation study with pilot testing of new industrial processing technology for solid waste from alumina production
IO/MET	(31.8.D)	AR/JAM/83/001	Metallurgical study report on needs and conditions for establishing a precision casting foundry (multifund to SI/JAM/82/801)
IO/MET	(31.8.D)	SI/JAM/82/801	Metallurgical study report on needs and conditions for establishing a precision cast foundry (multifund to AR/JAM/83/001)
IO/T/MET	J13207	DC/JAM/80/001	Upgrading the scientific and technological capabilities of the Jamaica Bauxite Institute (multifund to ST/JAM/80/T01)
IO/T/MET	J13207	DC/JAM/80/T01	Upgrading the scientific and technological capabilities of the Jamaica Bauxite Institute (multifund to DC/JAM/80/001)
IO/ENG	(30.1.00)	IS/JAM/71/802	Assistance to the toolroom
IO/ENG	(31.9.B)	DP/JAM/77/001	Advanced training for commercial toolroom machinery industries

The completed projects (cont.)

JAMAICA

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/ENG	(31.9.B)	DP/JAM/81/004	Assistance to the Ministry of Agriculture: Twickenham Park Workshop operation, spare parts control
IO/ENG	(31.9.B)	IS/JAM/75/006	Consultant to general manager of commercial toolroom
IO/ENG	(31.9.B)	TF/JAM/77/001	Tool, die and mould maker, assoc. expert
IO/ENG	(31.9.B)	TF/JAM/77/002	Tool, die and mould maker, assoc. expert
IO/ENG	(31.9.B)	TF/JAM/77/003	Tool and pattern maker, assoc. expert
IO/ENG	(31 9.B)	TF/JAM/77/004	Tool machinist, assoc. expert
IO/ENG	(31.9.Z)	DP/JAM/71/514	Repair and maintenance training and demonstration
IO/ENG	(31.9.Z)	DP/JAM/72/006	Organization and operation of toolmaker's institute
IO/CHEM	(30.4.00)	DP/JAM/71/002	Industrial promotion
IO/CHEM	(30.5.03)	IS/JAM/75/002	Preparatory mission to assist the plastics industry
IO/CHEM	(32.1.B)	IS/JAM/75/001	Development of ceramic industries
IO/CHEM	(32.1.B)	UC/JAM/83/077	Assistance in the development of the ceramic industry
IO/CHEM	(32.1.C)	IS/JAM/83/801	Assistance in salt production
IO/CHEM	(32.1.C)	IS/JAM/83/802	Assistance in salt production
IO/T/CHEM	J13419	DP/JAM/83/002	Consultancy in the production of limestone marble tiles
PC/DEV	(30.1.Z)	RP/JAM/84/001	Study-tour to bamboo craft/production centres in China
UNSPEC	(00.0)	TF/JAM/70/003	Industrial development and productivity

The completed projects (cont.)

JAMAICA

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/IIS/INFR	J12103	DP/JAM/85/014*	National programme for the development of handicrafts
IO/T/AGRO	J13103	SI/JAM/86/816	High-level advisory mission on agro-processing
IO/T/AGRO	J13105	DP/JAM/82/004*	Training in technology and testing of construction materials
IO/T/AGRO	J13105	SI/JAM/85/802	Advice in packaging design development

2. The approved and/or operational projects

DP/JAM/82/004*	IO/T/AGRO	J13105	Consolidation of the packaging centre and establishment of a plastics centre at the Jamaica Bureau of Standards
DP/JAM/85/014*	I)/IIS/INFR	J12103	National programme for the development of handicrafts

* Large-scale project (= total allotment $150,000 or above).

3

TRINIDAD AND TOBAGO

BASIC INDICATORS 1
The economy

GDP (1986):	US$7,780 million[a/]
GNP per capita (1985):	US$6,020
Population (1985):	1.18 million
Average annual growth rate of population:	1965-80: 1.3; 1980-85: 1.6
Density of population (1985):	229 per sq. km
Labour force (1985):	463,174
Growth of real GDP: (per cent)	1965-73: 3.5; 1973-84: 5.2; 1984: -7.4; 1985: -2.9; 1986[a/]: -6.4
Distribution of GDP (1985)[a/]: (percentage)	Agriculture (3.7), petroleum (23.8), manufacturing (10.2), construction (11.3), other (52.0)
Demand components of GDP (1982): (percentage)	Private consumption (58.6), government consumption (13.5), fixed investment (38.1), exports (36.2), imports (46.3)
Sectoral distribution of employment (1985): (percentage)	Construction (19.0), distribution and hotels (16.6), public services (14.2), manufacturing (11.1), agriculture (10.3)

Consumer price inflation: (per cent)	1981	1982	1983	1984	1985
	14.3	11.5	16.7	13.4	7.6

Exchange rate: (TT$ equivalents to US$)	1981	1982	1983	1984	Dec. 1985	Dec. 1986	July 1987
	2.40	2.40	2.40	2.40[b/]	3.61	3.60	3.60

[a/] Estimate.

[b/] Applicable to 12 selected food and drink items.

BASIC INDICATORS 2
Resources

Land area:	5,128 sq. km
Production of major crops (1985): (tonnes)	Sugar (80,900), cocoa (1,435, coffee citrus[a/] (6,739), copra (4,133)
Livestock (1984): ('000)	Cattle (76), sheep (12), goats (49), pigs (62)
Fisheries (1983):	4,000 tonnes
Forestry production (1983): ('000 cu. m)	Fuelwood (22), industrial roundwood (45), sawnwood and panels (28)
Minerals[b/] (1983):	Natural asphalt (38,200 tonnes)
Energy resources (1985):	Oil (500 million barrels) Gas (350 billion cu. m) Electricity (634 mw)[c/]

[a/] Excluding limes.
[b/] Other than oil and gas.
[c/] 1984.

BASIC INDICATORS 3
The manufacturing sector

MVA (1986): US$741 million[a/]

Real growth rate of MVA (per cent):

1965-73	1973-84	1984	1985
6.1	4.7	-11.3	-15.7

Distribution of MVA (percentage):

	1970	1983
Food products	15	26
Textiles and clothing	5	6
Machinery and transport equipment	5	15
Chemicals	5	8
Other manufacturing	69	44

Employment in manufacturing (1985): 51,412

Manufactured export (June 1986): TT$18,411,678
Share in total exports: 5.3 per cent

Manufactured imports (1984): US$704 million
Share in total imports[b/]: 51.9 per cent

[a/] Preliminary estimate.
[b/] Excluding food products. Including machinery and transport equipment.

BASIC INDICATORS 4
Foreign trade and balance of payments

Exports (1985):	US$2,089 million
Composition of exports (1984): (percentage)	Mineral fuels (81.4), chemicals (10.8), manufactured goods (3.2), machinery and transport equipment (1.4), sugar (1.2), other (2.8)
Main destinations (1985): (percentage)	USA (62.6), EEC (12.7), Guyana (3.0), Barbados (2.8), Suriname (2.3), other (16.6)
Imports (1985):	US$1,394 million
Composition of imports (1984): (percentage)	Machinery and transport equipment (30.3), manufactured goods (21.6), food, beverages and tobacco (20.8), chemicals (9.2), other (18.1)
Main origins (1985): (percentage)	USA (37.7), Japan (9.6), EEC (17.0), Canada (7.2), Argentina (4.4), other (24.1)
Balance of payments (1986): (current account deficit)	US$600 million[a/]
External public debt (1985):	US$1,087 million
Debt service ratio (1985): (as per cent of exports)	7.6 per cent
International reserves minus gold (1985):	US$1,087 million

a/ Preliminary estimate.

3.1 THE ECONOMY OF TRINIDAD AND TOBAGO

3.1.1 Recent economic trends

A decade-long economic boom fuelled by rising oil production and prices ended in 1982. In the wake of four consecutive years of declining growth rates, the economy of Trinidad and Tobago is passing through an extended period of readjustment and is set on the task of economic diversification. Oil revenues, which continue to account for over 80 per cent of export earnings and about 30 per cent of government revenue, fell to TT$2.69 billion in 1984, nearly two-fifths of their peak of TT$4.25 billion in 1981. Growth of real GDP registered negative rates of 5 per cent, 7.4 per cent and 2.9 per cent in 1983, 1984 and 1985 respectively. A further 6.4 per cent fall of GDP growth has been estimated for the year 1986. The new government, which assumed office in December 1986, inherits an economy which heavily depends upon oil prices for growth prospects in the medium term. The slight improvement in the oil price (around US$18 per bl.) in January 1987 is not sufficient to ameliorate the current economic situation.

Unemployment is rising fast. In 1986 unemployment was estimated at 20 per cent which was around 26 per cent more than a year ago. International reserves declined markedly from US$3,348 million in 1981 to US$541.7 million in 1986. The current account deficit, which fell from US$774 million in 1982 to US$205 million in 1985, is estimated to have risen to US$600 million in 1986. Inflation, which fell from 13.4 per cent in 1984 to 7.6 per cent in 1985, is likely to retain a two-digit rate in 1987 as the 33.3 per cent devaluation of Trinidad and Tobago dollar in December 1985 partly leads to soaring prices, reversing the trend achieved in 1985. The country's total public external debt stood at US$1.55 billion in early 1987. The country is unable to borrow from the World Bank because of its high per capita income which is twice the cut-off point of the per capita income criteria used by the World Bank. The new government is seeking US $220 million from foreign creditors.

One positive consequence of the recession has been a reduction in the fiscal deficit to TT$1.39 billion in 1984, 6.7 per cent of GDP compared with 13.9 per cent in 1982. This has been achieved through a reduction in capital expenditure from TT$3.5 billion in 1982 to TT$1.9 billion in 1984. However, this has been detrimental to the growth of key sectors, particularly to construction which fell by 13.5 per cent in 1984. Recurrent revenue was forecast at TT$5.8 billion in 1986. One of the main features of the 1986 budget was the removal of a 12 per cent duty on imported industrial inputs, which was in force for one year. The budget deficit for 1987 is projected at US $695 million. The new government's austerity measures attempt to save US $135 million per year.

In the face of declining oil revenue and depleting oil reserves, the drive for non-oil exports is vigorously accelerated. The strategy has started to pay off. In June 1986, non-petroleum exports were estimated at US$8.8 million, up by almost 50 per cent from June 1985. Manufactured exports increased from US$611,000 to US$1.2 million during the same period. Although an immediate upswing in the economy hinges upon a firmer oil price, much can be achieved through economic diversification.

3.1.2 Economic structure

With GNP per capita of US$6,020 in 1985, Trinidad and Tobago ranks as one of the richest countries in the Caribbean. In 1985, the total population of Trinidad and Tobago was estimated at 1.18 million, the majority of whom live on Trinidad. The average annual growth of population is 1.4 per cent.

During the second half of the 1970s Trinidad and Tobago's economic growth doubled, rising at an annual rate of over 8 per cent, compared with 3 per cent in the first half. Growth was concentrated in construction, services and manufacturing. Value added in construction increased at an annual average of 11 per cent reflecting the public sector's expanded investment and the boom in residential construction.

Until 1983, when GDP growth registered its first real decline for decades, the unprecedented increase in oil revenue had effectively integrated most other sectors of the economy. Fiscal surpluses, a healthy balance of payments position removed capital constraints on public and private expenditure on a remarkable scale. Despite depressed international prices for oil, the paramount position of oil in the Trinidadian economy remains unchanged.

A once dominant agricultural sector fell to an insignificant position, providing 3.7 per cent share of GDP in 1985 (Table 3.1). In absolute terms, the value of agricultural produce, measured at constant 1970 prices, fell from US$83 million in 1982 compared with US$96 million in 1970. The agricultural labour force decreased from 85,000 at the beginning of 1970 to 38,900 twelve years later.[1/] The country's traditional export crops are cocoa, coffee, citrus and sugar. The downward trend was common to all agricultural crops.

Table 3.1. Distribution of GDP by sector of origin, 1970-85 (selected years)
(percentage)

Sector	1970	1979	1983	1985[a/]
Agriculture	5.9	3.1	2.5	3.7
Petroleum	22.3	35.3	22.9	23.8
Manufacturing	...	6.1	7.0	10.2
Construction	...	12.6	15.0	11.3
Other	...	22.9	52.6	52.0

Source: Central Bank of Trinidad and Tobago.

[a/] Estimate.

[1/] For an analytical exposition of marked decline of the agricultural sector, see Pollard, H.J., "The Erosion of Agriculture in an Oil Economy: The Case of Export Crop Production in Trinidad", World Development, 1985, Vol. 13, No. 7, pp.819-835.

The government's endeavour to transform the economy is reflected in the improvement of the infrastructural and service facilities and its massive financial commitment to the developments in steel, power and chemicals at the Point Lisas industrial complex. The newly established, capital-intensive, energy-based industries have not as yet greatly changed the economic structure of the country since many of them are not fully in operation. The service sector grew by 10 per cent per annum, while value added in electricity and water increased by more than half during the 1970s. The growth in consumption exceeded that of GDP; real growth in fixed investment was high at 16 per cent per annum. In the late 1970s, public sector capital expenditure amounted to almost 70 per cent of investment and 20 per cent of GDP.

3.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

3.2.1 Overview of the manufacturing sector

The level of industrialization in Trinidad and Tobago is well below that of other countries at a similar level of per capita income. Under the auspices of the government's Industrial Development Corporation, a planned industrialization policy has been carried out in pursuit of using the country's oil revenues to develop the non-oil sector and diversify foreign exchange earnings.

Trinidad is an important regional refiner of petroleum, the two export refineries having a combined capacity in excess of 300,000 b/d. The slide in international demand for petroleum products and low capacity utilization led to a decline in refinery throughput. Refinery output in 1985 was 79,600 b/d. Due to the drop in oil prices, Trinidad and Tobago lost between US$540 million and US$750 million in 1986.

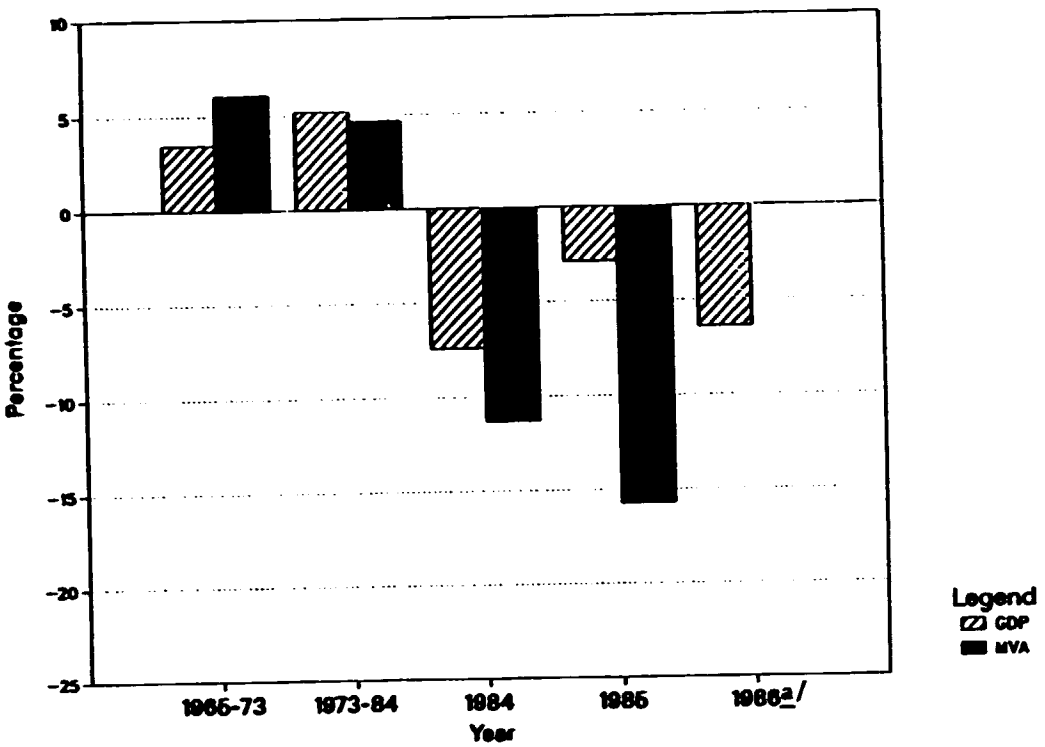
A number of energy-based heavy industries using the country's abundant natural gas resources have been established during the last decade, producing ammonia, iron and steel, methanol, urea; while menthanol/methyl ether, aluminium and LNG projects are under consideration. Exports of ammonia and urea rose by 14 per cent to 1.66 million tons in 1985; while fertilizer output rose to 1.46 million tons.

The light manufacturing sector has many of the usual characteristics of industries shielded from external competition. Assembly of imported parts and mixing and bottling operations of food processing account for two-thirds of value added. These activities have weak linkages to the domestic economy and do not greatly contribute to the generation of additional industrial skills. The quality of locally produced goods is often below that of comparable imports, and prices of domestically produced goods are frequently above international market prices.

For the last 25 years the manufacturing sector has benefitted from an "infant industry" status. Recently, however, import substitution is encountering increasing difficulties in the small national market; the share of imports in most sub-sectors with domestic production is already low. The cost of the long-term support given to infant industries has been high not least through the compensatory subsidies paid to consumers. Manufacturing has thus far been a net recipient of foreign exchange and has generated little tax revenue. The decline of the petroleum sector has created a need for alternative sources of foreign exchange to which the manufacturing sector could contribute.

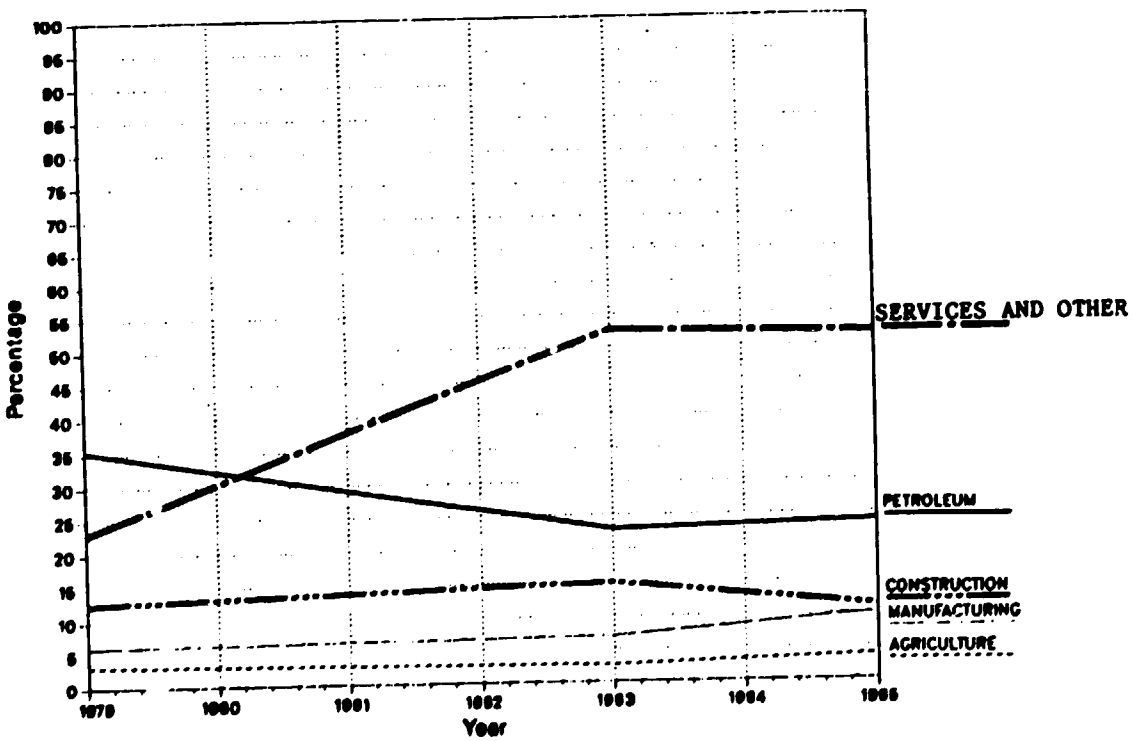
MANUFACTURING TRENDS

REAL GROWTH RATES OF GDP AND MVA, 1965-1986

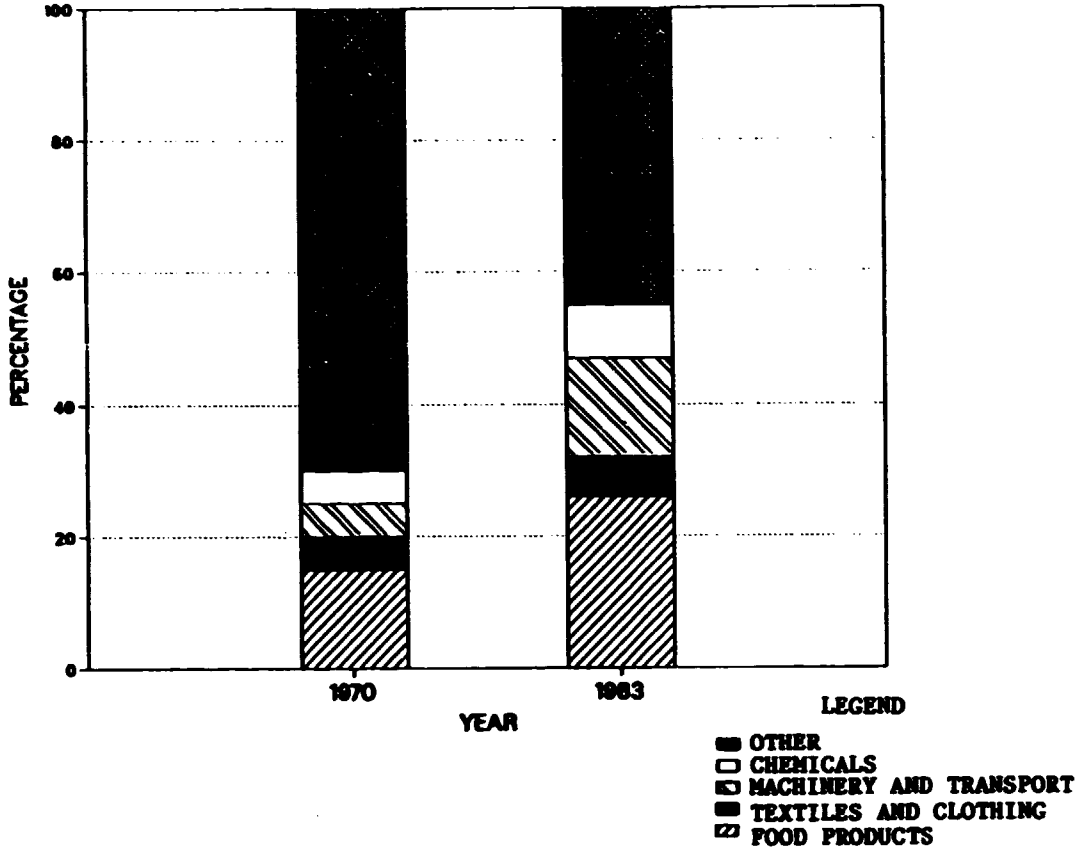


a/ MVA growth rates for 1986 not available.

DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 19[illegible]-1985
(In current prices)

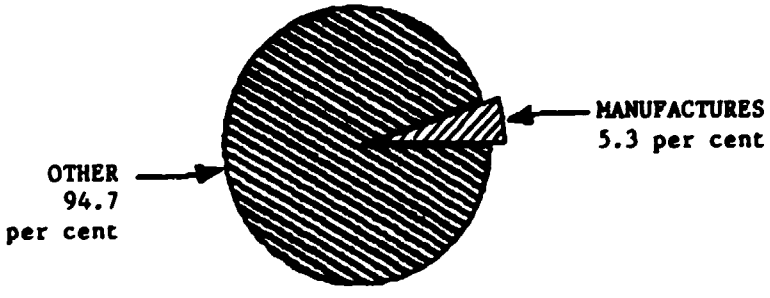


COMPOSITION OF MANUFACTURING VALUE ADDED, 1970 AND 1983 (PERCENTAGE)

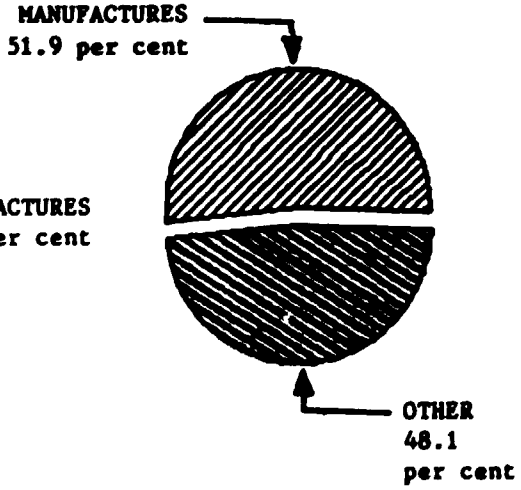


EXPORTS AND IMPORTS

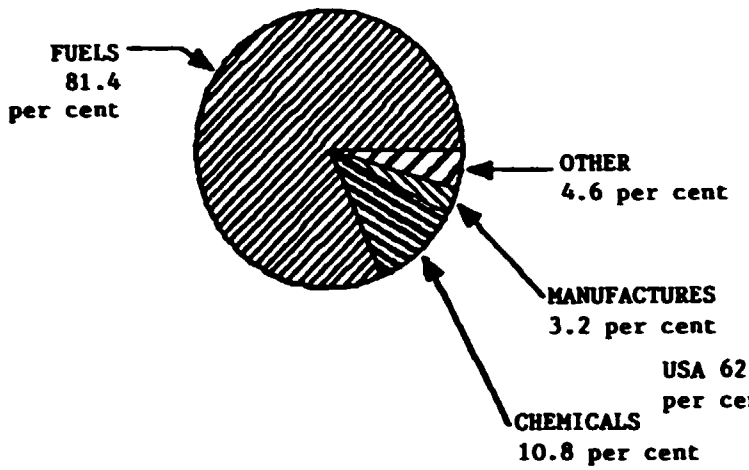
SHARE OF MANUFACTURES IN TOTAL EXPORTS, 1986



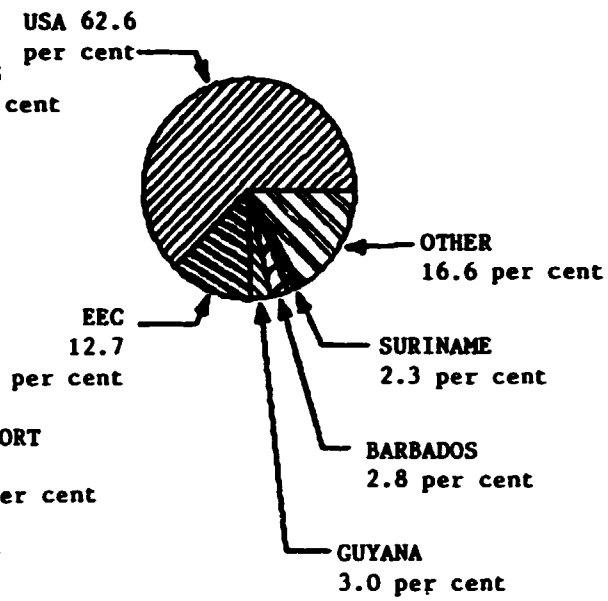
SHARE OF MANUFACTURES IN TOTAL IMPORTS, 1984



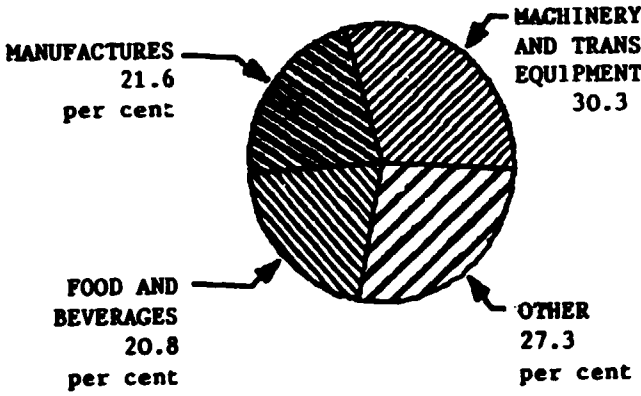
COMPOSITION OF EXPORTS, 1984



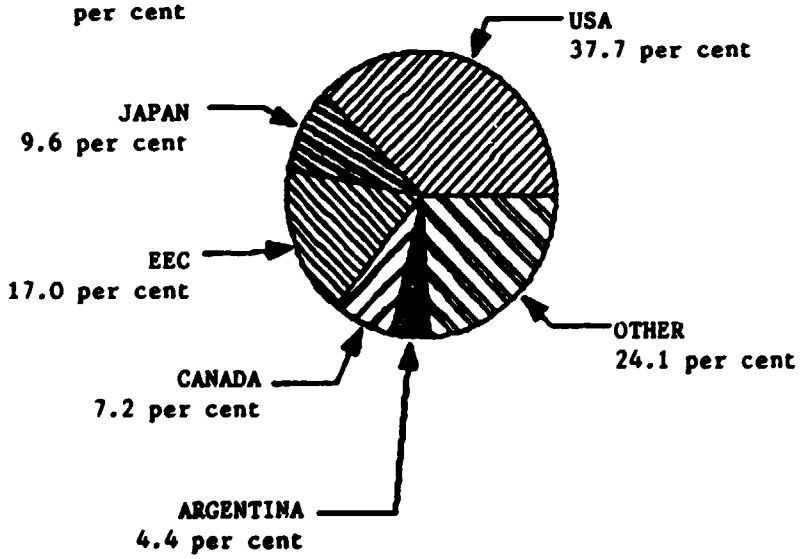
DESTINATION OF EXPORTS, 1985



COMPOSITION OF IMPORTS, 1984



ORIGIN OF IMPORTS, 1985



3.2.2 Growth and performance of the manufacturing sector

Manufacturing in Trinidad and Tobago expanded rapidly after 1973 behind a tight system of non-tariff protection. Real annual growth of manufacturing output ranged between 5 per cent and 15 per cent during 1974-78 and the manufacturing sector accounted for 10.2 per cent of GDP in 1985. The manufacturing sector registered a 2.1 per cent fall in 1982, but recorded a 4.1 per cent rise in output in 1983 in contrast to over 7 per cent decline in GDP in the same year. According to the Central Bank, manufacturing in Trinidad and Tobago suffered declining growth rates of -11.3 per cent and -15.7 per cent (at 1970 prices) in 1984 and 1985 respectively.

The share of food products in MVA rose from 15 per cent in 1970 to 26 per cent in 1983, while the share of textiles in MVA increased marginally from 5 per cent to 6 per cent during the same period. Machinery and transport equipment had a substantial increase in its share of MVA from 5 per cent in 1970 to 15 per cent in 1983. Chemicals accounted for 8 per cent of MVA in 1983.

Table 3.2 presents estimated physical output of selected manufactures for 1985 and figures pertaining to growth rates over the year 1984 and the period 1981-85. With the exception of fertilizers, radio receivers, television sets, edible oils and soap, all other sub-sectors of manufacturing suffered two-digit negative growth rates in 1985. The most striking aspect of manufacturing growth was an 80.6 per cent average growth recorded by steel products during 1981-85, despite a 17.2 per cent fall in 1985.

Table 3.2. Physical output of selected manufactures in 1985[a/] and average annual increase, 1981-85

Product	Unit	Volume 1985	annual increase (per cent) 1985	1981-85 (average)
Cement	('000 tonnes)	305.7	-24.6	10.4
Fertilizers	('000 tonnes)	1,660.0	13.8	19.3
Steel products	('000 tonnes)	474.3	-17.2	80.6
Motor vehicles	('000 units)	13.6	-40.4	2.7
Radio receivers	('000 units)	3.4	54.5	-16.3
Television sets	('000 units)	23.6	22.9	13.0
Gas cookers	('000 units)	16.2	-20.2	-7.1
Refrigerators	('000 units)	8.5	-61.0	-21.0
Rum	(m proof gallons)	2.5	-13.8	-13.3
Beer & stout	(m litres)	25.9	-23.4	-6.9
Edible oil	(m litres)	4.3	44.2	-11.9
Margarine	(m kg)	1.8	-25.0	...
Soap	(m kg)	1.8	5.9	-11.4

Source: Central Bank of Trinidad and Tobago.

a/ Estimate.

The export performance of manufactured goods of Trinidad and Tobago has been poor. There was, however, some improvement in 1986. Currently manufactured exports amount to just over TT$ 200 million per annum - some 2 per cent of total exports. In addition the majority of manufactured exports go to neighbouring CARICOM countries where Trinidad and Tobago exporters have duty free access. The basic obstacle to the growth of manufactured exports is the limited size of both domestic and CARICOM markets. Profits on manufactured exports are low because variable costs in Trinidad do not compare favourably with trading partners; the export incentive scheme is inadequate and largely inoperative, and there is insufficient export financing and insurance in Trinidad and Tobago. Fiscal incentives are inadequate to compensate export producers for the effects of escalating relative costs and high import protection.

A sub-sectoral analysis of the evolution and performance of manufacturing enterprises shows mixed trends.

There are two petroleum refineries, mostly producing fuel oil for export. In August 1984 the government bought the Pointe-à-Pierre refinery from Texaco for US$175 million to prevent its closure. Trinidad and Tobago now has refining capacity far in excess of its needs. Total output of refined products stood at 79,600 b/d in 1985, far below the installed capacity of 305,000 b/d. Of the total refined products fuel oil amounted to 41,600 b/d followed by gasoline (17,100 b/d), gas diesel oil (11,100 b/d), aviation fuel (5,400 b/d), and kerosene (2,500 b/d). The country's refineries suffer from over capacity and low-value heavy fuel products. Operating losses by the TKINTOC refinery was estimated at US$360,000 in 1980 and US$96.8 million during 1982-84. A further loss of US$255 million is projected for the period 1985-89 in the absence of refining upgrading.

Texaco now exports its crude unrefined directly to the USA. The former Shell refinery at Point Fortin is also operated by the government and has a meagre capacity of 85,000 b/d. In the first half of 1986, the two refineries' average output was 94,000 b/d, which was just 30 per cent of rated capacity. Supplies of crude oil are no longer being bought from Venezuela because of unattractive prices for refined products on the world markets. Recently a bilateral agreement with Mexico has provided for the processing of Mexican crude in Trinidad and Tobago and the possible return sale of petro-chemicals. The refining industries need rationalization of productive process to improve the quality of fuel products.

It is estimated that refining costs in Trinidad and Tobago amount to US$4.50 a barrel, compared with US$1.50 a barrel at the Curacco refinery in the Netherlands Antilles. Surplus staff and high wages seem to be the main reasons for high refining costs. In the past ten years, the country has not found any major raw oil deposits. This has led to a 23.1 per cent decline in proven reserves from 650 million barrels in the mid-1970s to 500 million barrels in 1985. At the current rate of extraction, the country will run out of oil in another 8 to 10 years.

Using Trinidad and Tobago's abundant natural gas, the government is seeking to promote energy-intensive industries to diversify its economy and to reduce the overwhelming dependence on petroleum. Various projects were developed on a joint venture basis in the 1970s. First to come on stream were two plants for ammonia; next came the iron and steel project, followed by plants for methanol and urea. Since 1979 the National Energy Corporation has been responsible for the development of energy-based projects; this

Corporation also has sole responsibility for the purchase, sale, transmission, and distribution of natural gas.

Trinidad Nitrogen (Tringen) Co. Ltd., a joint venture with W.R. Grace & Co. producing liquified ammonia for export from the Point Lisas complex, came on stream in 1977. This is a well conceived joint venture, combining the availability of low-priced natural gas and a developed site strategically located in relation to major markets, with the technical operating and market strengths of a major overseas firm. The success of the project led to a decision in 1986 to increase output from 400,000 to 900,000 tons per annum at a cost of US$245 million. Overall production has been close to rated capacity, which makes the country second only to the U.S.S.R. as an ammonia producer.

Fertilizers of Trinidad and Tobago (Fertrin) is a joint venture with AMOCO producing ammonia, with a rated capacity of 2,000 tons per day; total cost of the plant, which was completed in 1982, was US$250 million - some 30 per cent above estimates, apparently because of inadequate supervision during construction. The venture was reasonably well designed to utilize the low-cost gas feedstock, and incorporated a 5-year product marketing agreement. The State has a 51 per cent share in the plant. In the first half of 1983 the plant made an operating loss of US$9 million and these losses have continued since then.

A urea project was originally conceived on a joint venture basis, but was implemented by the National Energy Corporation with assistance from AGRICO for marketing the product. The project has a rated capacity of 1,620 tons per day and had a final cost of US$188 million, some 20 per cent up on estimates. The plant came on stream in 1983 when output totalled 163,000 tons. In 1984 substantial new markets were located in Asia. Although technically sound the project had some initial weaknesses with staffing and marketing, as well as needing a technical assistance and technological exchange agreement with the process licensor.

Methanol Project is a public sector project, built by Togo Engineering, using ICI technology; rated capacity is 1,200 tons per day, and the plant came on stream in 1984 at a cost of US$180 million. Some marketing difficulties have been anticipated for the disposal of a significant proportion of output on the open market outside the long-term agreements. Production in 1984 amounted to 239,776 tons.

Trinidad Cement Ltd. was established in the 1950s. This plant produced cement both for domestic needs and for export with a capacity of about 250,000 tons per annum. The growth of demand for cement gave rise to plans to replace the plant but changes in policy brought its nationalization in 1976. Since then, despite attempts at repair and piecemeal modernization, production declined steadily to 180,000 tons per annum in 1981, while consumption in the same year reached 380,000 tons. The plant is now operating at a low level of efficiency and low productivity, increasing production costs and thus the effective subsidy on cement, paid by the government, to almost 1 per cent of GDP in 1981.

Iron and Steel Complex (ISCOTT) was initiated as a joint venture with one European and two Japanese partners in 1975, the project was constructed as a national, wholly-owned project and was commissioned in 1981. The final cost was US$458 million, including a 26 per cent overrun. The final project

concept comprised two direct reduction units, melting and casting facilities, rolling mill, and three gas-powered generating plants. The directly reduced iron (DRI) capacity is 0.9 million tons per annum, the melting capacity is 0.75 million tons per annum, and the wire rod capacity 0.55 million tons per annum. The technical imbalance resulted from fears of a shortage of scrap, which had been intended to supplement DRI in the original project design. Problems in commissioning the plant included a shortage of trained personnel and the lack of any technical collaboration agreement or back-up; depressed market conditions in the US have undermined the original export plan targeted on the US. In addition, delays in completion of the plant and cost overruns brought ISCOTT into severe financial difficulties. Losses in 1982 amounted to TT$259 million and TT$223 million in 1983. In 1984 the government reached a new agreement with two European companies for the leasing, management and operation of the plant on a joint venture basis, with the State holding a 60 per cent share.

Despite mixed performance of energy-intensive heavy industries, the government seems to rely on heavy industry as the possible long-term successor to an oil-based economy. The policy of the government is also aiming at developing its light industries. Assembly of imported parts and mixing and bottling operations of the food processing industry dominate light manufacturing with about two-thirds of total value added. In the 1960s, Trinidad was a net exporter of food. Now the country relies on imports for about 75 per cent of food requirements.

The sugar industry continues to be in deep recession, despite a reported 92,314 tonne harvest in 1986, which was 14.1 per cent higher than 1985 output and higher than the target of 91,580 tonnes. Caroni, the State sugar company, incurred a financial loss of TT$11.8 million in 1986. The company is yet to recover from the impact of a two-month industrial dispute, heavy rain and high levels of cane fires. Deteriorating conditions forced Caroni to lay off 8,000 of its employees in 1985 and 1986. As part of a restructuring of sugar processing, Caroni is to be merged with another public concern, Orange Grove National Estate, with a view to producing 100,000 tonnes of sugar a year. In 1984 Trinidad's Usine St Madeline refinery processed 47,000 tonnes of raw sugar from Brazil, the Dominican Republic and Guatemala. It aims at operating at its 60,000 tonnes a year capacity.

Among the light industries, the garment industry suffered a sharp fall in sales in 1986 in the face of foreign competition and recent currency devaluations in CARICOM countries.

Because of the oil-induced recession, sharp contraction in domestic and foreign demand and high production costs, manufacturing production was almost 14.5 per cent below the level attained in 1984. Sales in almost all sub-sectors of light manufacturing deteriorated substantially. A comparison of sales indices for the second quarter in 1985 with that of 1984 shows that sales within food processing industries declined by 3.7 per cent, drink and tobacco by 2.9 per cent, textiles, garments and footwear by 14.5 per cent, and printing, publishing and paper products by 8.9 per cent.

Manufacturing problems and prospects

With no sign of an end to the oil-induced recession, economic diversification has become imperative. The government has sought to use the country's abundant gas resource as a basic building block for the future by

establishing a series of natural gas-based heavy industries, which would utilize the cheap feedstocks available. The fertilizer and chemical plants, together with associated oil refineries and a gas-fuelled iron and steel complex, are intended to form the core of the country's industrial base. The centre of the new effort is a 2,000 acre industrial Estate at Point Lisas in southern Trinidad which accommodates two ammonia plants, and provides facilities for producing methanol and urea and steel. Of these heavy industries, the Iron and Steel Company of Trinidad and Tobago had a financially painful history. However, a range of petrochemical plants seized the opportunities stemming from Asian markets and did fairly well. These industries may be able to meet expectations. In the wake of rising unemployment and a 3.9 per cent annual increase in labour force which outstrips the population growth rate, the energy- and capital-intensive heavy industries could explore the possibilities for downstream opportunities. The immediate downstream opportunities identified in the iron and steel industry are a vast range of wire products from fasteners, bearings, precision machinery and components. Although most of the country's ammonia production is exported, downstream development has already begun with a urea complex which utilizes almost half of the total ammonia production and much of its excess carbon-dioxide. Opportunities also exist for the production of a more diversified range of fertilizers. Additional downstream opportunities exist for use of urea in a wide variety of commercial processing industries involved in the manufacture of animal feed, dyes, perfumes, etc.

An effort is under way to rationalize the sugar industry, with increasing emphasis on crop diversification. In May 1986 the Caribbean Development Bank granted US$4.5 million to increase rice production. Caroni is shedding 9,300 acres of sugar land for rice farming and 10,000 acres for fruit growing and pasture. The realistic prospects for strengthening the country's food processing industries are constrained by high wage cost, implying that these industries could continue to survive only under heavy subsidy for production.

Intra-regional trade has been almost halved since 1981, and now accounts for little more than 5 per cent of total imports. Assuming that a less restrictive approach to trade would arouse positive response from regional and extra-regional trade partners, a liberal trade policy pursued by Trinidad and Tobago, one of the major markets in the Caribbean region, might ignite the trends towards regional harmonization of trade policies. This in turn could alleviate many of the problems of the ailing economy.

3.3 POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

3.3.1 Policies and institutions

The Government of Trinidad and Tobago is pursuing a development strategy which stresses:

- a new industrial thrust into the area of energy-intensive industries;
- the modernization of agriculture, especially in the area of food production;
- investment in upgrading and expanding the physical infrastructure needed to support efficient, modern economic activity;

- the development of tourism; and

- the promotion of exports.

The government has sought to increase manufactured exports and more efficient (or less costly) import substitution industries. This has been done mainly through non-tariff barriers, because under the CARICOM common external tariff arrangement there is little room for adjustments to suit national requirements.

In recent years the "negative list" of prohibited imports has been under very much closer scrutiny and regular review. Import licensing arrangements have been relaxed, but the lack of automaticity, the apparent absence of known procedures and uncertainties and delays have combined to undermine some of the positive effects of increasing the total domestic supply of goods.

The most important of the series of policies designed to balance the effects of the protection policies has been that of price control. Price controls on domestically manufactured products are intended to limit the monopolistic price setting power of protected producers. Price controls for imported products serve to limit manipulation of invoices but are also frequently used as an additional non-tariff barrier. Imports are discouraged by long delays in releasing price controlled goods. Goods are sometimes withheld from the market place while new prices are fixed, creating artificial shortages and leading to the establishment of parallel markets. Some investments in production of price controlled goods may well have been deterred by the consequent uncertainty with regard to future price levels and profitability. Tax incentives are used in Trinidad and Tobago to strengthen consumer demand rather than to support production. Manufacturers of consumer products particularly have benefitted from frequent reductions of indirect taxes on their products.

The Industrial Development Corporation (TTIDC) is the official agency charged with responsibility for the light manufacturing sector. Since 1959 TTIDC has established 10 industrial estates providing 137 industrial sites. Because of the scarcity of suitable industrial accommodation, this policy is continuing. The TTIDC also functions as a holding company for four publicly-owned enterprises, two taken over from the private sector and two established by the TTIDC itself. The enterprises run by TTIDC are:

- Trinidad and Tobago Electronics Ltd.
- Trincity Garment Manufacturing Co.
- Metal Industries Co.
- Trinidad Bagasse Products Co.

TTIDC also provides technical and financial assistance as well as a range of fiscal incentives, industrial parks and factory shells. The Development Finance Corporation provides loans and equity capital to the manufacturing and tourism sectors while the Caribbean Industrial Research Institute provides technological support. The Management Development Centre provides management training and consultancy support.

Since the dramatic fall in real incomes throughout the economy, precipitated by the fall in oil revenues, the slackening of demand for local manufactures has heightened the insecurity of local industry. To counteract this and to further the reorientation of the economy the government has

promoted the development of exports. Fiscal incentives have been provided and new institutional arrangements have been made, specifically the establishment of an Export Development Corporation in 1984. Financial assistance is available to exporters in the form of market development grants. Support for the penetration of overseas markets is also available, together with assistance from a trade information service. The aim is to attract "high-tech" industries and there are plans to establish an industrial export zone on the Pt. Lisas industrial estate, together with a science park, to help attract foreign investors in search of off-shore locations for high technology production.

The government of Trinidad and Tobago provides a wide range of fiscal and other incentives to domestic as well as foreign investors. These include income tax holidays, reduction of duties on imported capital goods and raw materials, accelerated depreciation allowances, grants in respect of expenditures on export promotion initiatives, rebates on income tax (where applicable) on income derived from exports, industrial financing (soft loans, capital grants, training subsidies), and the provision of developed industrial sites and factory accommodation.

Fiscal incentives include:

- duty free exemption on imports of raw material, machinery, and equipment;
- income tax exemption for up to ten years;
- employment allowances for persons engaged in manufacturing activities that are directly associated with tourism.

Investment allowances include:

- allowances of up to 30 per cent for new machinery acquired and installed after 31st December 1982. This is designed to encourage new investments in manufacturing and to facilitate export development;
- allowances for petroleum exploration up to 150 per cent of new capital expenditure incurred in mining operations;
- initial allowances of up to 50 per cent of the capital expenditure incurred in the procurement of machinery or plant.

Export allowances include:

- allowance geared to encourage firms to increase their export sales volume, and computed as a percentage of export sales to total sales and applied to chargeable profit. The allowance is extended to all industries with the exception of the petroleum industry, pioneer products during the tax holiday period, and products enjoying the benefits of the Fiscal Incentives Act during the tax holiday period.

Market development grants include:

- grant of 50 per cent of the cost of preliminary investment on market development activities, covering such activities as research in foreign markets, market testing in target markets abroad, product design and consultancy, market identification, product testing by approved foreign institutes for ensuring adherence to standards and other technical/statutory requirements.

Depreciation and special depreciation allowances, the latter including 40 per cent of original value of plant and equipment and 10 per cent on original value of industrial buildings.

Repatriation of profits for registered activities under the terms of the Exchange Control Act.

Double Taxation Relief for application of reduced rates of withholding taxes for individuals and for corporations.

Quantitative Restrictions limiting or prohibiting the import of certain commodities, where necessary, to provide protection for certain products manufactured in Trinidad and Tobago.

Other incentives available include: training subsidies for development of new skills, provision of industrial sites and industrial accommodation, export credit insurance, pre- and post-shipment credit guarantees, rediscounting facilities at concessionary rates, tax deductible promotional expenses.

Towards a new industrial policy framework for restructuring manufacturing sector:

Within the framework of the Economic Recovery Plan tailored by the new government, specific initiatives towards restructuring the country's manufacturing sector have been outlined. The new orientation in industrial policy seems to aim at job creation, balanced development between light and heavy industries, spread of industrial activities throughout the country, inter-linking of local industries and wider ownership and participation in manufacturing activities. The reformulation of industrial policy measures will be accompanied by institutional reorganization conducive to industrial growth, efficiency and competitiveness.

The thrust of industrial policy reformulation for economic recovery and sustained growth is to re-order priorities according to short-, medium- and long-term imperatives. As the country's current economic situation calls for the provision of employment and incomes, the new government attempts to spur investment in labour-intensive and high-yielding industries which require low level of technology. The agro-industries stand as potential candidates for addressing the immediate problem of unemployment and income generation in the short-term. Since productive capacities in urea, ammonia and steel are already in place, the new approach to industrialization aims at developing downstream activities in these industries in the medium-term. The new government's medium-term priority list also encompasses engineering industries, light manufacturing and high quality export-oriented consumer durables. The long-term industrial restrucutring process aims at switching investment out of declining industries into new growth areas.

While there will be no further investment in fertilizer production, the steel industry will be made one of the cornerstones of the country's industrial sector by developing an investment programme which will have strong linkages with other activities and will provide opportunities for further processing of selected capital-goods. The new strategy also emphasizes the production of lubricants, plastic and plastics related industries and the development of engineering services. A concerted and vigorous programme is to

be initiated to offer products, which in design will be unique to Trinidad and Tobago, to regional and extra-regional markets, with capacity to adapt and respond to changing international demand.

A national fisheries resources programme is to be developed, with a view to introducing an innovative approach to exploit the country's marine resources which could form a useful base for further industrial development. A ban on the importation of fish and fish products is envisaged in order to give a boost to the fresh fish industry and to local fish processing which include canning, salting and smoking.

The new government intends to introduce new forms of participation in State enterprises and plans to establish the Foreign Investment and Technology Commission to examine, approve, monitor and evaluate foreign investments and to set guidelines for the encouragement of private foreign capital.

3.3.2 Resources for industrial development

Human resources

The total labour force of Trinidad and Tobago numbered 463,174 in 1985 and the rate of unemployment increased from 10.4 per cent in 1981 to around 20 per cent in 1986. The majority of unemployed are unskilled and there is a shortage of management personnel, technicians and skilled workers, and a relatively limited supply of agricultural workers. Since half of the population is under 20 years of age, the work force is expected to grow rapidly in the future. In order to improve skill levels in the labour force and to reduce unemployment, the government has introduced several manpower training programmes, especially in technical and vocational fields.

Sectoral distribution of employment in 1985 revealed that the construction sector was the largest employer, providing 19.0 per cent of the labour force, followed by distribution and hotels (16.6 per cent), public services (14.2 per cent), manufacturing (11.1 per cent) and agriculture (10.3 per cent).

The new industrial reorientation in Trinidad and Tobago places emphasis on the creation of jobs for the skilled and unskilled work force. While gas-based capital-intensive industries could absorb skilled workers, downstream activities in heavy industry and labour-intensive light manufacturing activities could provide jobs for the growing labour force.

Agricultural resources

Agriculture is the only non-oil sector which grew significantly in 1985, increasing by 8.7 per cent. Food imports cost the exchequer around US$275 million a year. This dependence had been created by the concentration on export crops - cocoa, coffee and sugar - at the expense of traditional agriculture. Subsidies were given to farmers, but these were costly. By the end of 1985 US$15 million had been paid out to farmers.

For the first time in this century, the country is now self-sufficient in green root vegetables, poultry, pork and fish. The production of fruits and vegetables provides exportable surplus. Entrepreneurs in agro-industries receive State assistance if they buy local produce. Efforts are under way to

expand agro-industries which produce such products as tomato sauce, pepper sauce, jams, jellies, biscuits, juices, meat products and chocolate.

Energy

Trinidad and Tobago's proven reserves of oil are currently estimated at 500 million barrels, sufficient for 9-10 year's production at the prevailing rates of exploitation. Crude oil production peaked in 1977-78 at an annual level of 84 million b/d. Since then production has declined at about 6 per cent per annum, reaching 58.3 million in 1983; in 1984 and 1985 there were small increases of 5.6 and 7.7 per cent respectively, after fiscal incentives had been introduced to encourage exploration. However, the long-term outlook is one of overall decline, possibly at a slightly higher rate than hitherto.

The one natural resource which Trinidad possesses in abundance is natural gas; the first deposits were discovered in the 1940s, and the first plant to exploit them for the production of fertilizers was built ten years later. However, substantial reserves were first proven only in the late 1960s. Trinidad's total proven reserves of natural gas amount to 350 billion cu. m; likely recoverable reserves are 617 billion cu. m (125 years supply at present extraction rates). The government's pricing policy for gas involves purchases from the supplying companies taking into account their costs, but sales are priced according to the type of consumer. Output in 1983 amounted to 5.8 billion cu. m.

Gas reserves are 168.5 trillion cu. ft. against domestic annual use of 588 million cu. ft. Natural gas fuels all electricity generation in Trinidad and Tobago. Installed electricity capacity amounted to 634 mw in 1984; in 1982 2.57 billion kwh were generated compared with 1.43 billion kwh in 1977.

Finance

The financial institutions in Trinidad and Tobago are headed by the Central Bank of Trinidad and Tobago which is supported by:

Commercial banks
Finance houses
Trust companies
Trust institutions
Insurance companies
Private mortgage finance companies
A merchant bank
A National Insurance Agency.

The new government indicated that the revitalization measures are to be financed in part by foreign loans. The financial problems inherited by the government have required cutbacks in project spending.

3.3.3 The role of technical co-operation in industrial development

With high per capita income Trinidad and Tobago does not qualify for assistance from international lending agencies. However, with the weakening in the performance of the economy the role of technical co-operation projects funded by bilateral and multilateral sources is assuming greater significance.

During 1984-85 the Commonwealth Fund for technical co-operation provided technical assistance to the development of the handicraft industry. The programme for 1986 included an export business identification programme in the US, a market study of miscellaneous manufactured products for export to Venezuela and feasibility studies in measuring devices and control instrumentation, machine pumps and valves. Technical assistance provided by the European Economic Community encompassed timber production, dairy/meat production and a multi-annual training programme.

In the heavy industry sector there have been a number of operational and technical problems, as well as difficulties in establishing adequate marketing arrangements in competitive world markets. These problems have been largely dealt with on a joint venture or service contract basis. However in this sector, there will continue to be a need for technical assistance to strengthen the position of Trinidadian partners or controlling interests by upgrading their knowledge and understanding of world market trends and technological developments - so making them more equal partners.

In the light industry sector, the priority is to provide assistance to facilitate the emergence from 'infant industry' status after 25 years of special support and protection. Import substitution opportunities are likely to be very limited, given the small size of the domestic market, and at the same time stronger competition can be expected for domestic producers from overseas suppliers of highly competitive and attractive products, particularly in consumer durables and non-durables. Technical assistance will therefore be required to establish training capabilities in both managerial and operational fields; advisory and consultancy services will be required to deal with organizational and technical problems at the enterprise level; additional research and development support services will be required to facilitate product development, structural change and adaptation.

While the major institutional arrangements for these services are already in place either on a national or regional basis, some of these will need to be expanded and most will need to develop their capabilities through extension services and improved contact points for individual industrialists. In practical terms the restructuring and reorientation of production involves the redesign and tailoring of production to the needs of different markets from those depended upon in the past, at the same time as producers are forced to raise production efficiency and quality control and to lower production costs. Parallel with these wide ranging changes in production techniques, there will be a need for a reform of marketing and distribution methods to identify export opportunities and to promote export sales. Technical assistance at the product level will have to take account of these export requirements. External assistance is also needed in industrial policy formulation and planning.

APPENDIX 3.A

Manufacturing projects seeking external assistance [a/]

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/001/V/84-10	Biscuits	1,000,000 kg/year of sweet biscuits	930,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/002/V/84-10	Woven polypropylene sacks	4 million sacks/year	5,200,000	Equity participation Loans Licensing Sale of technology Equipment supply
TRI/003/V/84-10	Agricultural hand tools	Shovels, spades, hoes, etc. 300,000-400,000/year	2,500,000	Equity participation Licensing Sale of technology
TRI/004/V/84-10	Hand tools and cutlery	Hand tools: 500,000/year Cutlery: 1,200,000/year	1,000,000	Equity participation Licensing Sale of technology Access to foreign markets
TRI/005/V/84-10	Dry cell batteries	5-6 million/year	2,000,000	Equity participation Loans Licensing Sale of technology Equipment supply

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/006/V/84-10	Plywood	100,000 cu. m/year of plywood for indoor and outdoor use	51,000,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/007/V/84-10	V-Belts	360,000/year of fan belts for motor vehicles and similar transmission belts for motors, elevators, pulleys, etc.	3,400,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/008/V/84-10	Building blocks and modules	Up to 3,600 blocks of different sizes/day	508,000	Equity participation Loans Sale of technology Access to foreign markets
TRI/009/V/84-10	Agricultural hand tools	Shovels: 500,000/year Other: 500,000/year	15,200,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/010/V/84-10	Diesel engines	2,500/year of 3-5 HP, 8-12 HP and 15-20 HP diesel engines for pumps, electric generators, etc.	15,200,000	Equity participation Loans Licensing Sale of technology
TRI/011/V/84-10	Tractor implements and trailers	Tractor implements (disc harrows, levellers, etc.) Tractor trailers for 18-20 HP and 80-100 HP tractors 3,000 units/year	7,600,000	Equity participation Loans Licensing Sale of technology Access to foreign markets

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/012/V/84-10	Irrigation pumps	2,500 centrifugal irrigation pumps/year	12,200,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/013/V/84-10	Electric motors and generators	Electric motors and generators (single phase and three phase, 2-3 pole, 3-15 HP): 250/year	6,000,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/014/V/84-10	Records and cassettes	Long-playing records: 300,000/year 45 RPM records: 300,000/year Recorded cassettes: 10,000/year	2,690,000	Licensing Sale of technology
TRI/015/V/84-10	Dry cell batteries	Dry cell batteries for tape recorders, hearing aids, etc. 3,000,000/year	7,600,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/016/V/84-10	Polystyrene sheets for refrigerators	High impact polystyrene sheets: 300 tons/year	1,718,000	Joint venture Licensing Sale of technology
TRI/017/V/84-10	Clay brick manufacture	1983: 1,500,000 bricks Planned increase: 140,000 bricks/day	1,680,000	Technical expertise Equipment supply

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/018/V/84-10	Office partitions	350,000 sq. ft./year of office partitioning Floor tracks: 25,000 linear feet/year Bridging: 100,000 linear feet/year Intermediate studs: 22,000/year Permalock studs: 42,000/year	592,000	Equity participation Loans Access to foreign markets
TRI/020/V/84-10	School uniforms and protective work clothes	School uniforms for local market and for export to regional markets Coveralls, laboratory coats, etc. for export Production on 25 indus. machines	200,000	Loans Licensing Sale of technology Access to foreign markets
TRI/021/V/84-10	Electric dry cell batteries	Sizes AA R-6, C R-14, D R-20	1,850,000	Equity participation Licensing Sale of technology Access to foreign markets Training expertise
TRI/022/V/84-10	Pharmaceutical plant	Vitamin products, proprietary drugs, generic prescription drugs Tablets: 400 million units/year Hard gelatine capsules: 110 million units/year Liquids: 75,000 gals/year Semi-solids: 14,000 kg/year	4,000,000	Management expertise
TRI/023/V/84-10	Breakfast cereals, vegetarian foods and corn and soya oil	500 tons/month of wheat, corn and rice cereals; granola; corn and soya oil; and vegetarian sausages and meat loaves	1,170,000	Equity participation Loans Licensing Sale of technology Access to foreign markets Equipment supply

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/024/V/84-10	Asphalt building materials	Fibreglass reinforced asphalt roofing shingles: 630,000 bundles/year (1 bundle = 33 sq. ft.) Asphalt coated roofing/ building paper: 910 rolls/year (1 roll = 300 sq. ft.)	814,300	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/025/V/84-10	Optical glass lenses	Semi-finished and finished lenses and bifocal lenses 270,250 pairs of lenses/year	345,300	Loans Access to foreign markets
TRI/027/V/84-10	Welding electrodes, electrical conduits and grinding and cutting discs	Flux coated welding electrodes: 1,000,000 kg/year Electrical (steel) conduits: 1,000 km/year Grinding and cutting discs (metal and masonry): 2,500,000/year	1,200,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/029/V/84-10	Metalworking	Welding and fabricating	75,000	Loans Licensing Sale of technology
TRI/030/V/84-10	Wooden furniture	Kitchen and bathroom cabinets, shelving units, room dividers, etc.: 40 units/day	670,000	Equity participation Loans Sale of technology
TRI/031/V/84-10	Towels	1 million towels/year	550,000	Equity participation Loans Licensing Sale of technology Access to foreign markets

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/032/V/84-10	Ladies' and men's clothing and sheets	Shirts: 15 dozen/day Trousers: 4 dozen/day Dresses: 2 dozen/day Sheets: 4 dozen/day	30,000	Loans Access to foreign markets
TRI/033/V/84-10	Precast concrete products	Precast, pre-stressed concrete piles, double tees, flat slabs and low-cost housing elements 4,800 ft. of pre-stressed pile beds/year 600 ft. X 4 ft. of double tee beds/year 200 ft. of flab slab beds/year	9,652,500	Licensing Sale of technology Access to foreign markets
TRI/034/V/84-10	Electrical galvanized steel components	Galvanized steel brackets, bolts, cross bars, etc. for electrical distribution network	n/a	Access to foreign markets Technical expertise Equipment supply
TRI/035/V/84-10	Ferrous and non-ferrous castings	Increase in furnace capacity to 4,000 lbs/year each for aluminium, bronze/brass, cast iron, ductile iron and steel Bronze/brass saddles, fittings, etc. Cast/ductile iron manhole covers and gratings, etc. Steel burners, agricultural tools, etc. Aluminium cooking pots, rain-water outlets, etc.	462,000	Equity participation Licensing Sale of technology Access to foreign markets Training expertise
TRI/038/V/84-10	Vegetable processing	Processing, flash-freezing and packaging of local and imported vegetables Capacity to be determined	950,000	Equity participation Loans Licensing Sale of technology Access to foreign markets Marketing expertise

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/040/V/84-10	Automotive suspension coil springs	500,000/year	710,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/041/V/84-10	Automotive seat frames	150,000/year	370,000	Equity participation Loans Licensing Sale of technology
TRI/042/V/84-10	Domestic solar water heaters	250/year	260,000	Equity participation Loans Licensing Sale of technology Access to foreign markets
TRI/043/V/84-10	Porcelain electrical insulators	8 tons/day	6,000,000	Equity participation Loans Licensing Sale of technology Access to foreign markets Raw material supply
TRI/044/V/84-10	Children's and men's clothing	Trousers, shorts, shirts and pyjamas Current output: 100 dozen pieces/week Planned increase: 500 dozen pieces/week	460,000	Equity participation Loans Access to foreign markets Raw material supply

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/045/V/84-10	Particle board/furniture based on bagasse	Medium density particle board and laminated particle board from bagasse, completely knocked-down furniture Particle board: 5,300 tons/year or Laminated particle board: 7,040 tons/year or Furniture: 7,040 tons/year	5,515,000	Loans Access to foreign markets
TRI/046/V/84-10	Automotive starter batteries	6 and 12 volt automotive starter batteries, battery plates	410,000	Joint venture Loans Licensing Sale of technology Access to foreign markets
TRI/047/V/84-10	Automotive filament bulbs	1,200,000/year	150,000	Access to foreign markets
TRI/048/V/84-10	Automotive seat frames	50,000/year	200,000	Equity participation Licensing Sale of technology
TRI/049/V/84-10	Automotive electrical cables	Battery/motor starter cables: 100,000/year High tension cables: 800,000/year Electrical wire harnesses: 25,000/year	2,500,000	Equity participation Licensing Sale of technology Access to foreign markets

APPENDIX 3.A (Cont.)

Project number	Project title	Product and capacity	Total project cost (US$)	Foreign contribution sought
TRI/050/V/84-10	Agricultural hand tools	Spades, shovels, picks, etc. 553,000/year	n/a	Equity participation Loans Licensing Sale of technology Access to foreign markets

1/ This list includes industrial projects in Trinidad and Tobago for which foreign co-operation, such as joint venture or other partnerships, acquisition of technology, management expertise and marketing assistance, is sought. Enterprises interested in the possibility of participating in any of these projects can obtain more detailed information, including the name and address of the sponsor, from UNIDO Investment Promotion Service.* This information usually takes the form of a standard industrial investment project questionnaire. Copies of studies, when these are available, may then be obtained from the project sponsor. UNIDO does not accept responsibility for accuracy or completeness.

* = Vienna

APPENDIX 3.B

Leading companies, 1987
(values in million US$)

Rank	Company	Type of business	Sales/ turnover	Net profit/ (loss)	Net Assets	Employees	Ownership
1	Neal & Massy	Holding company	312.0	0.6	15.4		L = 91%
2	McEnearney Alstons	Holding company	216.4	(11.9)	100.5		L = 98%
3	Trintopec	Petroleum	183.6	19.7	203.3	2,000	S = 100%
4	T. Goddes Grant	Holding company	180.0	2.0	14.1		L = 87%
5	Caroni (1975)	Sugar production	61.1		11.9	9,300	S = 100%
6	Angostura	Bitters manufacturing	51.2	3.5	82.9	350	L = 93%
7	Witco	Cigarette manufacturing	40.5	7.4	16.8	387	L = 53% F = 47% (BAT,UK)
8	Caribbean Development Co.	Breweries	40.3	1.6	32.6		L = 97%
9	Lever (WI)	Manufacturing	37.9	3.4	19.5		F = 53% (Lever, UK) L = 47%
10	Fertin	Ammonia production	34.7			390	S = 51% F = 49% (Amoco, US)
11	Stephen's & Ross	Distribution, retail	30.7	(2.3)	9.7		L = 100%
12	Agostini	Distribution, retail	14.8	0.4	7.1		L = 99%
13	LJ Williams	Manufacturing	11.4	0.2	11.7	200	L = 90%
14	Metal Box	Container manufacturing	10.5	(2.5)	7.5		F = 51% (Metal Box, UK) L = 49%
15	Furness	Distribution, retal	9.3		14.1		L = 68%
16	F W Woolworth	Retail	9.3	(1.0)	2.7		L = 51% F = 49% (W'worth, UK)
17	National Brewing	Breweries	8.0	(2.0)	3.5		L = 54%
18	Trinidad Publishing	Printing, publishing	7.8	0.3	13.0		L = 100%
19	Bata	Shoes manufacturing	7.2		3.6		F = 70% (Bata, Canada) L = 30%
20	Berger	Paints manufacturing	6.3		4.8		F = 70% (Berger, US) L = 30%

Source: South, April 1987.

S = State L = Local F = Foreign

APPENDIX 3.C

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

REPUBLIC OF TRINIDAD AND TOBAGO

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/INFR	(32.3.04)	IS/TRI/71/002	Technical assistance in the establishment of an export-oriented industrial free zone
IO/INFR	(31.3.A)	DP/TRI/73/004	Adviser in industrial standardization and quality control
IO/INFR	(31.3.A)	VC/TRI/74/089	Trinidad and Tobago and Canada: linkage between industrial research institutions
IO/INFR	(31.3.D)	DP/TRI/70/003	Small-scale industries
IO/INFR	(31.3.F)	DP/TRI/73/008	Promotion and investment in petrochemical industry
IO/INFR	(31.3.J)	DP/TRI/69/505	Caribbean Industrial Research Institute
IO/INFR	(31.3.Z)	TF/TRI/74/002	Technical assistance in the establishment of an export-oriented industrial free zone
IO/TRNG	(31.5.B)	DP/TRI/82/001	Analytical/industrial chemistry, fellowship
IO/AGRO	(OC.0)	TS/TRI/69/001	Assistance to the coconut growers association of Trinidad
IO/AGRO	(31.7.D)	DP/TRI/77/001	Study of development possibilities in leather and leather processing industries
IO/ENG	(31.9.A)	DP/TRI/74/001	Development of tool and die production
IO/ENG	(31.9.A)	TF/TRI/76/001	Associate expert to development of tool and die production
IO/ENG	(31.9.D)	UC/TRI/81/053	Assistance in marine engineering field; evaluation of proposal
IO/T/ENG	J13316	DP/TRI/78/005	Development of tool and die production and manufacturing engineering capability (continuation of DP/TRI/74/001) (continued under DP/TRI/85/007)
IO/CHEM	(32.1.D)	RP/TRI/85/001	Technical visit of natural products chemist from CARIRI (Trinidad and Tobago) to the Institute for Medicinal Plant Development (IMPLAD) (China)
IO/CHEM	(32.1.H)	DP/TRI/81/003	TRINTOC research and development facility
IO/T/CHEM	J13423	SI/TRI/85/801	Advisory services for the Industrial Development Corporation (IDC) in pulp and paper
IPCT/DTT/TEC	G03300	UC/TRI/82/096	Seminar on the development, transfer and management of technology at the national level

2. The approved and/or operational projects

REPUBLIC OF TRINIDAD AND TOBAGO

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/T/AGRO	J13103	TF/TRI/84/091	Pre-feasibility study on hydrogenisation of shark fillet
IO/T/ENG	J13316	DP/TRI/85/007*	Tool manufacturing and product development for metal working and piastics industries (continution of DP/TRI/78/005)
IO/T/CHEM	J13420	SI/TRI/86/874	Assistance in salt production
IPCT/DTT/TEC	G03304	DP/TRI/86/005	Workshop on the development of micro-electronics capability

* Total allotment $1 million or above.

4

GUYANA

BASIC INDICATORS 1
The economy

GDP (1986): US $213 million[a/]

GNP per capita (1984): US $507[a/]

Population (1984): 940,000

Annual population growth rate (1970-83): 1.0 per cent

Density of population (1984): 4 per sq. km

Labour force (1984): 240,000

Growth of real GDP:

1970-80	1981	1982	1983	1984	1985	1986
1.5	-0.3	-12.4	-8.8	3.8	1.0	0.3

Distribution of GDP:

	1980	1986
Agriculture	27.8	26.1
Mining and quarrying	16.5	5.6
Manufacturing	7.7	15.4
Construction	7.1	7.0
Services	40.9	45.9

Sectoral distribution of employment (1984):

Public sector:	78,450
Private sector:	54,450

Consumer price inflation (per cent):

1981	1982	1983	1984	1985	1986
24.7	20.3	13.3	28.5	25.0	25.0

Exchange rate (Guyanese dollar equivalents to US $1):

1981	1982	1983	1984	1985	Nov. 1986	July 1987
3.03	3.03	3.03	4.12	4.37	4.31	10.0

[a/] Estimate.

BASIC INDICATORS 2
Resources

Land area:	216,000 sq. km
Production of major crops (1985):	Sugar (246,900 tonnes), rice (156,000 tonnes)
Other crops:	Coconuts, citrus fruit, coffee and cocoa
Livestock (1984): ('000)	Cattle (312), sheep (117), goats (75), pigs (142)
Fisheries (1983): ('000 tonnes)	Freshwater and diadrom (1), marine fish (22), shellfish (4)
Forestry production (1983): ('000 cu. m)	Fuelwood and charcoal (12), industrial roundwood (189), sawnwood and panels (70)
Minerals:	Bauxite[a/] - 580,000 tonnes (1985) Gold - 11,100 oz. (1984) Diamonds - 7,300 carats (1984)
Energy resources:	Considerable hydroelectric power potential - not fully developed

a/ Calcined bauxite.

BASIC INDICATORS 3
The manufacturing sector

Value of manufacturing output (1984):	US $23.5 million[a/]					
Real growth of manufacturing output: (per cent)	1970-80	1981	1982	1983	1984	
	5.1	6.1	-12.8	18.8	1.0	
Annual average growth of manufactured products: (per cent)				1972-82	1984-85	
	Textiles			3.9	13.3	
	Margarine			4.2	...	
	Flour			8.6	...	
	Biscuits			2.1	62.6	
	Aerated beverages			2.8	20.0	
	Rum			...	3.5	
	Beer and stout			5.7	3.2	
	Cigarettes			3.8	25.1	
	Matches			...	40.4	
	Soap			5.0	...	
	Footwear			...	7.5	
	Refrigerators			...	36.6	
Share of manufactured exports in total exports (1985):	10 per cent[b/]					

a/ Sugar milling, rice milling and other processing activities.

b/ Preliminary estimate.

BASIC INDICATORS 4
Foreign trade and balance of payments

Exports (1986):	US $293 million[a/]
Major exports (1984): (percentage)	Mineral-based: Calcined bauxite (28.7) Dried bauxite (9.2) Alumina (6.1) Agricultural-based: Sugar (32.2) Rice (9.9) Logs/lumber (2.0)
Destinations (1984): (percentage)	EEC (34.4), USA (17.7), CARICOM (17.2), Japan (8.8)
Imports (1986):	US $367 million[a/]
Major imports (1984): (percentage)	Consumer goods (6.5), intermediate goods (76.5), capital goods (16.5)
Origins (1934): (percentage)	EEC (32.2), USA (22.1), CARICOM (36.6)
Balance of payments (1985): (current account deficit)	US $97 million
External public debt (1986):	US $1.3 billion[a/]
Debt service as per cent of exports (1986):	13.7 per cent
International reserves (1985):	US $2.9 million

[a/] Preliminary estimate.

4.1. THE ECONOMY OF GUYANA

4.1.1 Recent economic trends

The economic recovery that commenced in 1984 after a sharp contraction of real GDP at the rate of -12.4 per cent and -8.8 per cent in 1982 and 1983 respectively could be sustained rather at a low pace of around 1 per cent in 1985 and 0.3 per cent 1986. Low world prices for Guyana's major exports, namely bauxite/alumina, sugar and rice, and a severe shortage of foreign exchange reserves continue to hamper substantial recovery. A 3.8 per cent upturn in real GDP in 1984 resulted from a 47 per cent increase in value added in the bauxite sector and a 23 per cent rise in rice production. The year 1986 was marked by lower than planned bauxite and sugar production. Despite positive growth rates achieved in recent years, the size of GDP, measured in real terms, is still below the levels attained in the early 1970s.

During the first half of the 1970s, Guyana experienced a period of real growth at about 4 per cent per annum resulting from rapid growth of government expenditures and price rises for Guyana's major export commodities. The second half of the decade in contrast was a period of rapid economic decline; this was brought about by much reduced production of bauxite and sugar, a situation exacerbated by deteriorating terms of trade for these staple export commodities, as well as a further increase in the price of oil, a principal import item in 1979. This economic crisis persisted through the early 1980s.

The continued deterioration of the economy in 1981-83 had weakened public sector finances. Before 1981 central government deficits on current account had been off-set by surpluses produced by the public sector corporations. The decline in demand for the country's major export commodities and low domestic production meant a substantial decline in revenues and operating deficits. However, the resource gap increased relatively slowly because of a sharp decline in imports. The current account deficit was 26 per cent of GDP in 1984, compared with 22 per cent in 1980, and it fell from US $158 million in 1983 to US $97 million in 1985. The current account deficits had been financed by concessional capital inflows and the shortfalls by accumulating external arrears to the extent of US $625 million, or 158 per cent of GDP, by the end of 1984. Medium/long-term debt was around US $1.3 billion in 1986, 172 per cent of GDP. Since 1981 Guyana has been unable to service its external debt; in 1984 debt servicing amounted to US $31 million against scheduled payment of US $88 million (38 per cent of exports). Due to lack of adherence to IMF conditionality, the IMF declared Guyana ineligible for further loans until it pays its debt of around US $30 million to the Fund. However, in early 1986 Guyana was included in the list of countries eligible for assistance under a new IMF facility offering easier terms than normal for IMF lending. In 1987 devaluation took the Guyana dollar to 10.0 = US $1, and at an "open window" the main commerical bank pays G$20.0 per US$1.

When a short-term stabilization programme and a number of additional policies, including measures on energy resource development, export promotion and industrial development, failed to yield the anticipated results, a series of devaluations of the Guyanese dollar was introduced in 1984 in an attempt to restore internal and external equilibrium. Despite the impact of these devaluations the real effective exchange rate of the Guyana dollar has continued to decline, as a result of underlying inflation and continuing poor export performance. The priorities set during the 1984/85 budget emphasized the need for agricultural growth and self-sufficiency in food, resource allocation and institutional restructuring.

Despite some advances in production the Guyanese economy remains constrained, particularly because of weak public sector finances, continued underutilization of capacity and the country's inability to generate foreign exchange reserves. International reserves declined from US $6.9 million in 1981 to US $2.9 million in 1985. Reserves were almost exhausted in 1986 and the circumstances forced the Central Bank to suspend foreign exchange dealings on August 11. Imports were estimated at US $367 million for 1986, while the estimated exports stood at US $293 million. With a total expenditure of US $464 million the government deficit was estimated at US $93 million for 1986. Inflation and unemployment, estimated at around 25 per cent and 30 per cent respectively, remain high.

Immediate prospects for growth are dependent upon restoration of normal links with the IMF and external financial assistance, while marked improvement in economic performance is to be achieved through structural reform of the economy.

4.1.2 Economic structure

Guyana's population was estimated at 940,000 in 1984. The economy is primarily dependent on the production of sugar, rice, bauxite and alumina, which account for over 80 per cent of export earnings. Most agriculture is located on the coastal plains, whereas the mineral and timber resources of the densely tropical hinterland remain relatively unexploited, with the exception of bauxite, primarily because of a lack of infrastructure.

At independence in 1966, foreign interests dominated development of bauxite and sugar. The indigenous private sector was involved in trading and distribution, small-scale manufacturing and farming. In the 1970s the bauxite and sugar industries were nationalized, and the public sector came to the fore in other sectors too; public enterprises produce alcoholic beverages, processed foods, soaps and detergents, paints, and forest products; they also are involved in printing, fishing, construction, retailing and distribution. The share of public consumption in GDP almost doubled and public investment grew to be four times that of the private sector. The public sector became the dominant employer and its influence over economic activity and future investment was extended by means of import licences and foreign exchange allocation procedures and price control systems.

Table 4.1 shows that GDP originating in the agricultural sector declined from 27.8 per cent in 1980 to 24.6 per cent in 1984, and registered an upturn in 1985. The projected share of agriculture in GDP for 1986 showed a marginal decline. In terms of growth the agricultural sector showed a steady decline up to 1983 and a recovery in subsequent years, underpinned by a substantial increase in rice production in 1984. The downturn of the mining sector was drastic as its share of GDP fell from 16.5 per cent in 1980 to 14 per cent in 1983. The recovery achieved in 1984 resulted in its rising share of GDP in 1984, but the sector faced yet another fall in its share of GDP in 1985. However, its projected share of GDP in 1986 showed a 2.5 per cent increase. Other minerals produced are gold and diamond. In contrast to the fluctuations in agriculture and mining shares of GDP, the manufacturing sector has been recording a steady upward trend. Its share of GDP rose from 7.7 per cent in 1980 to 15.4 per cent in 1986, while the share of construction has, on the whole, remained constant at around 7-8 per cent. It lends credence to the fact that the manufacturing sector has offset the sharp decline in the share of the mining sector in the first half of the 1980s.

Table 4.1. Distribution of GDP by sector of origin, 1980-86
(percentage)

	1980	1981	1982	1983	1984	1985	1986[a/]
Agriculture, forestry and fishing	27.8	26.0	26.9	25.8	24.6	26.9	26.1
Mining and quarrying	16.5	7.5	7.0	1.4	4.6	3.1	5.6
Manufacturing and processing	7.7	11.0	10.8	11.6	13.0	13.9	15.4
Construction	7.1	8.2	7.6	8.2	7.1	7.4	7.0
Sercices	40.9	47.3	47.7	53.0	50.7	48.7	45.9
GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Bank of Guyana, Statistical Bulletin, September 1985; State Planning Secretariat, Central Statistical Bureau, Estimates of Current and Capital Revenue and Expenditure for the Year 1986.

a/ Projected.

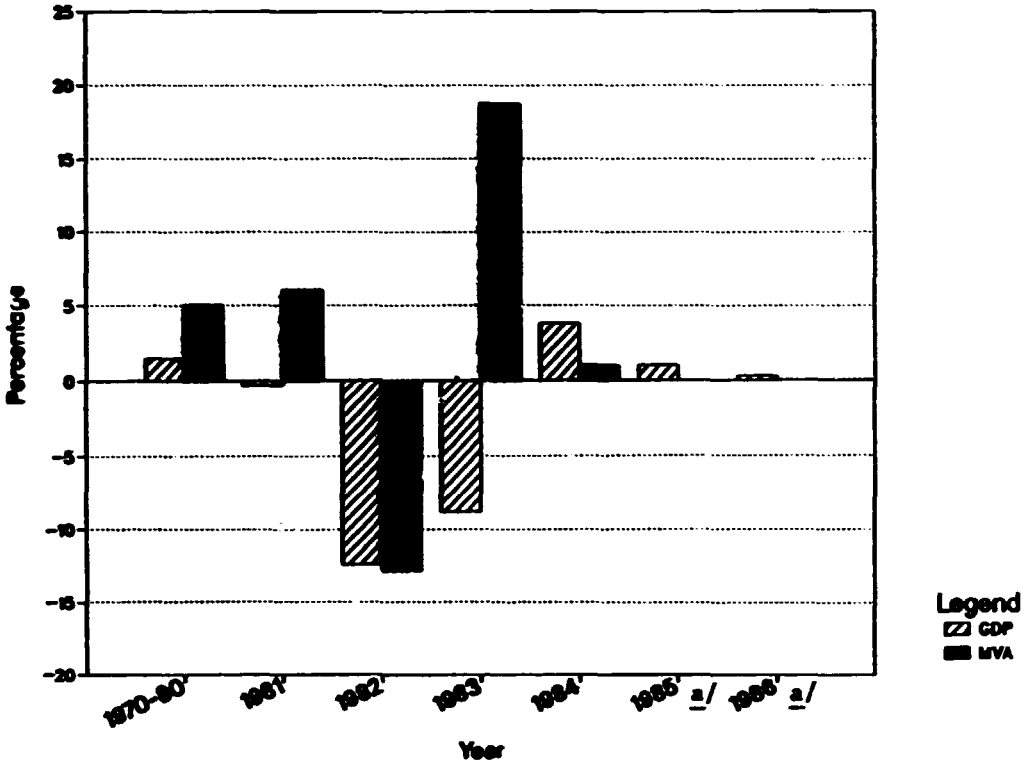
Gross fixed capital formation fell from G$449 million in 1980 to G$410 million in 1985, revealing a downward trend in investments. The fall was more pronounced in private sector investments as it fell by 13.7 per cent per annum in the first half of the 1980s. While the share of gross fixed capital formation in GDP fell from 30 per cent in 1980 to less than 21 per cent in 1985, expenditure on consumption was rising at an annual average rate of 7.5 per cent, leading to a sharp increase from G$1,232 million in 1980 to G$1,771 million in 1985.

Because of continuing uncertainties over resource flows, the 1985 public sector investment programme was restricted to ongoing medium-term projects with identified external support and short-term projects of major domestic importance. The G$748 million budget for public sector investment for 1985 was unattainable given the identified sources of finance; the domestic share itself (some 65 per cent of total) was not likely to be forthcoming, particularly the foreign exchange element.

The economy remains vulnerable to internal and external factors, and its ability to generate foreign exchange reserves looms as a critical challenge. The government endeavours to revitalize the economy by rehabilitating its bauxite and sugar industries and by broadening its manufacturing base.

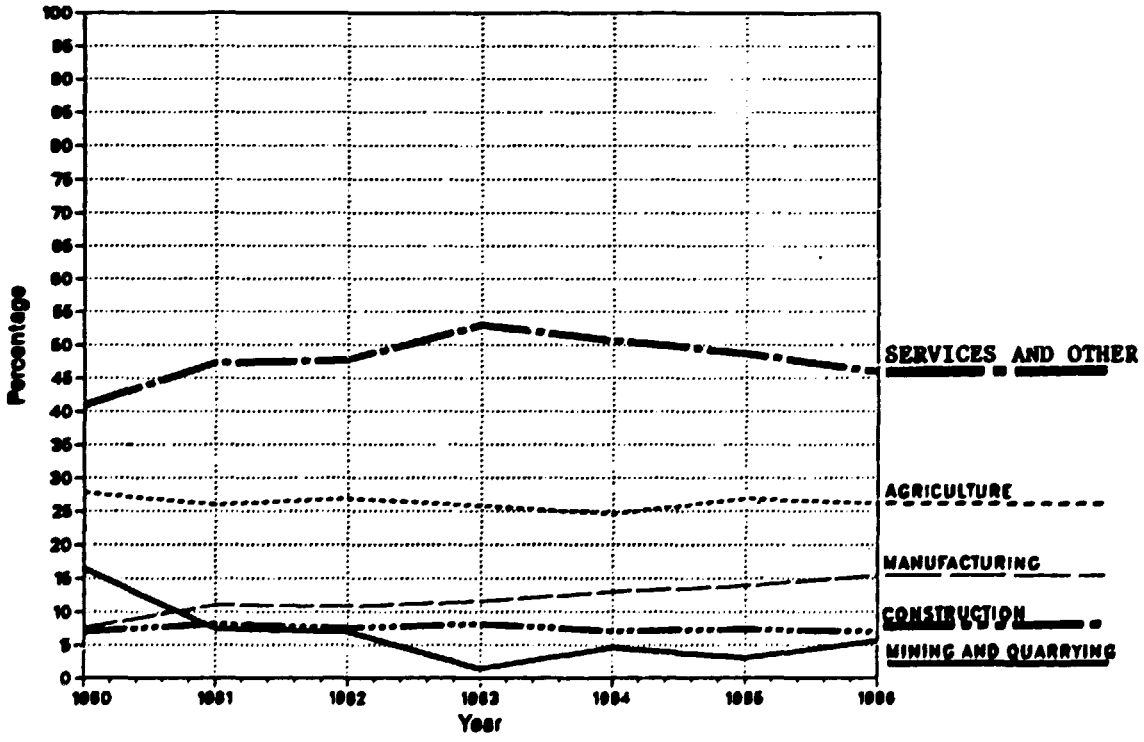
MANUFACTURING TRENDS

REAL GROWTH RATES OF GDP AND MVA, 1970-1986

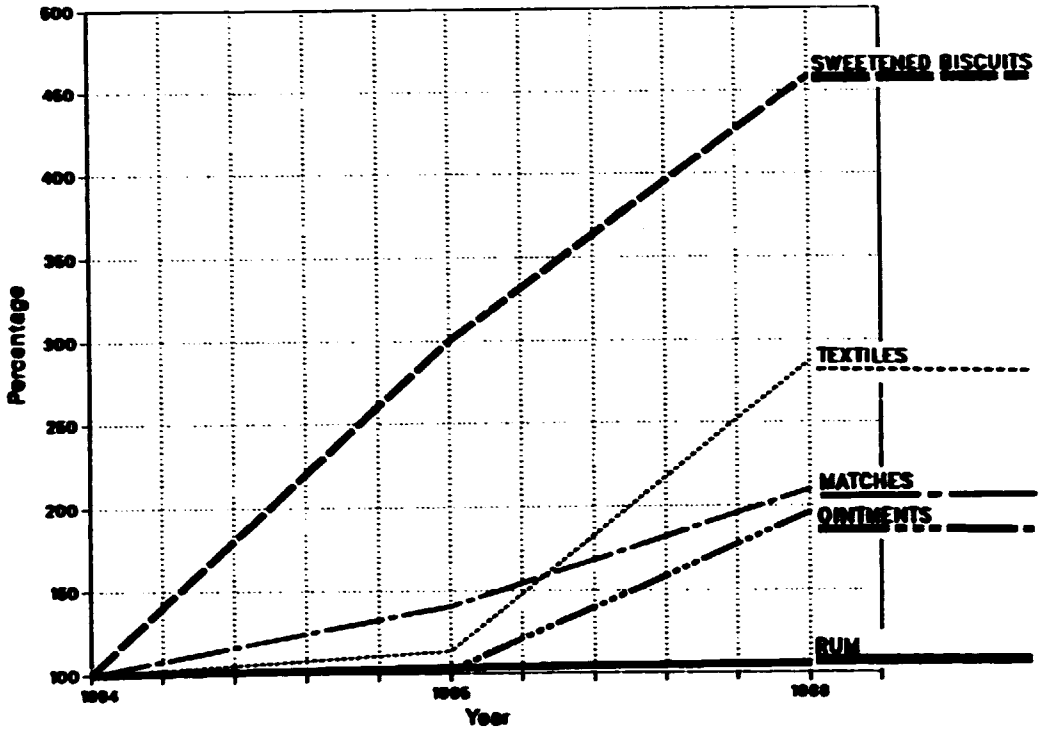


a/ MVA growth rates for 1985 and 1986 not available.

DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1980-1986
(In current prices)

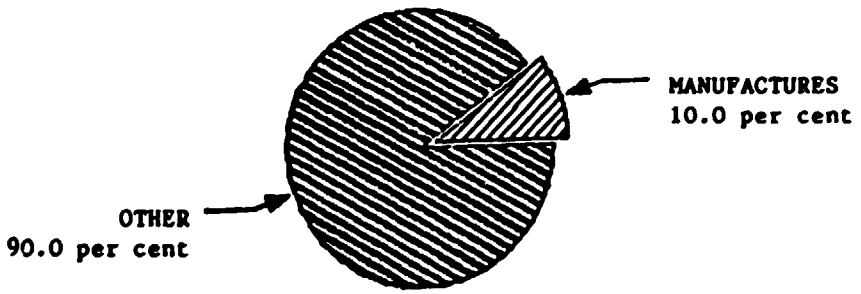


INDEX OF MANUFACTURING OUTPUT, SELECTED PRODUCTS, 1984-1986
(1984=100)

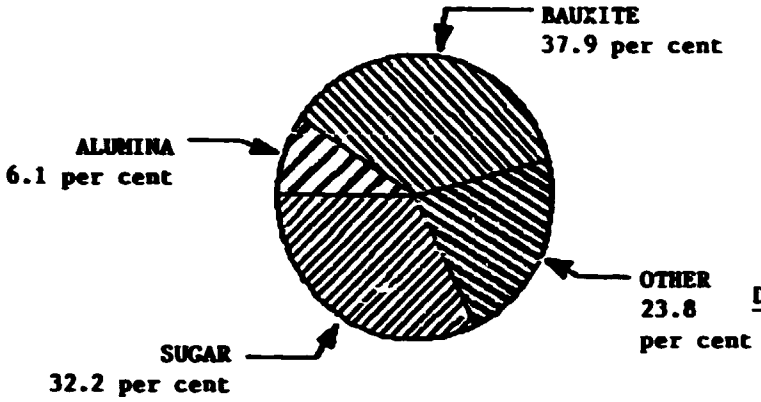


EXPORTS AND IMPORTS

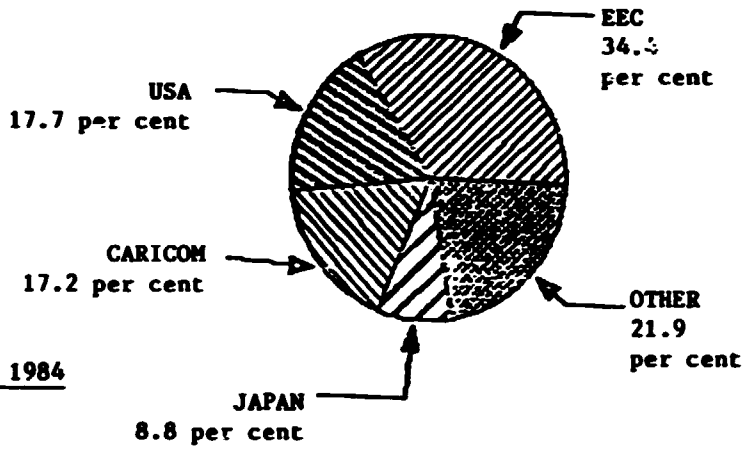
SHARE OF MANUFACTURES
IN TOTAL EXPORTS, 1985



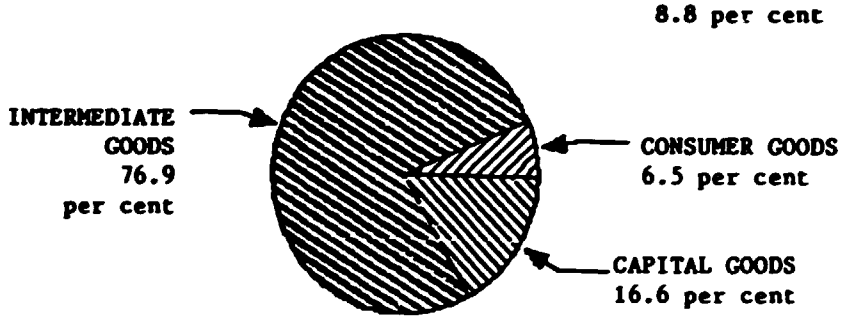
COMPOSITION OF EXPORTS, 1984



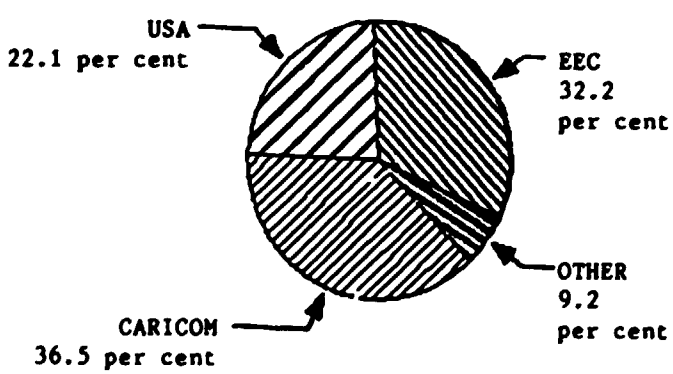
DESTINATION OF EXPORTS, 1984



COMPOSITION OF IMPORTS, 1984



ORIGIN OF IMPORTS, 1984



4.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

4.2.1 Overview of the manufacturing sector

The manufacturing sector in Guyana, exclusive of bauxite processing and the milling of sugar and rice, is very small accounting for less than 10 per cent of GDP and of export earnings. Most of these activities are undertaken by the private sector, which has grown rapidly in the last decade, although its potential contribution to the economy has been limited. The difficult economic environment, particularly the shortage of foreign exchange and frequent interruptions of power have inhibited the growth of existing enterprises. The uncertainties of the investment climate have constrained diversification and the creation of new enterprises and activities.

Manufacturing activities take place in both the public and private sector enterprises engaged in the production of a variety of consumer, intermediate and capital goods. The processing of sugar cane, rice, timber, coconuts, gold, manganese and diamonds accounts for about 75 per cent of the country's manufacturing output. Additional manufacturing activities encompass light consumer goods produced by a large number of small-scale firms. In terms of investment, the public sector is dominant. There are 625 enterprises in the private sector, of which 217 firms are found in wood industry (including furniture) and 104 firms are engaged in the production of footwear, textiles and wearing apparel. In recent years a number of co-operative ventures have also been established. The small (10-50 workers) and medium (51-100 workers) enterprise sectors contribute approximately 20 per cent of MVA.

4.2.2 Growth, structural change and performance

Although the manufacturing sector in Guyana grew faster than other sectors in the 1970s, its contribution to the overall transformation of the economy remained far below its potential. Lack of investment and shortage of imported inputs limited the possibility of widening the manufacturing base and boosting exports.

Notwithstanding these constraints, the performance of several industrial activities improved considerably in 1984-85 in contrast to their performance in the period 1972-82. Production of aerated beverages, cigarettes, sweetened biscuits, matches, textiles, footwear and stoves increased substantially in 1985 compared with the production levels achieved in 1984. Table 4.2 shows that pharmaceutical products, stockfeed, paints and refrigerators recorded downturns in 1985. Estimated indices of manufacturing output for 1986 presented in Table 4.2 show that with the exception of stockfeed and biscuits, recorded output was above the base year (1984) level.

In recent years the non-traditional manufacturing sector grew significantly in value added, although performance across the various product groups was mixed. A variety of consumer, intermediate and capital goods are manufactured; these include food and beverages, pharmaceuticals, textiles and leather, and consumer goods such as refrigerators and stoves. Given the country's natural resources, the high level of literary and research capabilities, the potential for the manufacturing sector is considerable. However, the industrial sector in general has been constrained by inadequate machinery and equipment and insufficient supplies of spares and raw materials, leading to continued low capacity utilization.

Table 4.2. Physical volumes and indices of manufacturing output, selected products, 1984-86

Item	Unit	1984	Index	1985	Index	1986[a/]	Index
Rum	Litres million	17.3	100.00	17.9	103.47	18.2	105.20
Beer and stout	'000 litres	7,731.5	100.00	7,982.0	103.21	9,002	116.43
Aerated:							
Aerated	'000 cases	2,083	100.00	2,418	116.08	2,700	129.62
Malta	'000 cases	273	100.00	342	125.27	300	109.89
Shandy	'000 cases	176	100.00	277	157.39	240	136.86
Cigarettes	Million sticks	373.2	100.00	466.9	125.11	510.0	136.66
Stockfeed	Million kg	26.1	100.00	25.5	97.70	25.0	95.79
Flour	'000 lb.	...	...	...	...	...	...
Biscuits:							
Sweetened	'000 kg	95.5	100.00	286.4	299.89	438.6	459.26
Unsweetened	'000 kg	806.4	100.00	50.9	6.31	545.5	67.65
Pharmaceuticals:							
Liquid	'000 litres	528	100.00	438	82.95	840	159.09
Tablets	Million.	22.5	100.00	18.4	81.77	48.0	213.33
Ointments	'000 kg	4.9	100.00	5.0	102.04	9.6	195.92
Matches	'000 gross cartons	114.5	100.00	160.8	140.44	240.0	209.61
Paints	'000 gallons	65.2	100.00	30.3	16.47	100.0	153.37
Textiles	Million metres	1.5	100.00	1.7	113.33	4.3	286.67
Footwear	'000 pairs	216.8	100.00	233.0	107.47	305.0	140.68
Refrigerators	Number	9,607	100.00	6,092	63.39	10,000	104.09
Stoves	Number	1,547	100.00	1,635	105.69	...	...

Source: Central Statistical Bureau.

[a/] Projected.

Branch analysis of industrial performance

Bauxite industry

The State-owned Guyana Mining Enterprise Ltd. (GUYMINE) undertakes bauxite production and operates mines and plants at four locations. Guyana is the world's largest producer of calcind grade bauxite and accounts for 50 per cent of the world market. Output performance of bauxite industry declined consistently until 1983. Although production of calcind bauxite has increased from 350,000 tonnes in 1983 to 560,000 tonnes in 1984 and 580,000 tonnes in 1985, the rate of capacity utilization was far below the installed capacity. The low level of capacity utilization is the result of poor plant and equipment condition and high operating costs. In 1984, fuel oil and wages and salaries accounted for 47 per cent of Guymine's total cost of production. The existing plants and equipments require extensive rehabilitation. A review

of bauxite industry's performance made in 1980[1/] indicated that with appropriate rehabilitation, output levels could be expanded significantly. Apart from underutilization of capacity, the industry's finances have deteriorated since 1976 because of low productivity, depressed world prices and emergence of new competitors.

In early 1986 GUYMINE invested US $62 million to rehabilitate bauxite mining installations. The International Development Association (IDA) approved a US $7 million loan in August 1986 for the industry's rehabilitation plan, particularly for developing marketing and cost control techniques. A new product development involving production of a new refractory grade of bauxite is also envisaged.

Sugar industry

The Guyana Sugar Corporation Ltd. (GUYSUCO) controls every aspect of production from growing sugar cane to its processing and marketing. The industry has faced a variety of problems in recent years. Labour strikes and heavy rainfalls during 1979-84 created many production problems. Due to adverse weather and labour stoppages, sugar output in 1985 was 10 per cent below the target level set for the year. The 1986 output level was targeted at 280,000 tonnes. The industry continues to suffer from low world prices of sugar. GUYSUCO estimated an operating loss of US $8.25 million for 1986. The government plans to diversify its sugar industry by developing new products such as molasses for animal feed and methanol production closing down two older mills and converting marginal major land to other crops.

Heavy losses incurred by GUYMINE and GUYSUCO have been primarily responsible for huge public sector deficit in recent years.

Food processing industries

The existing food processing industry consists of the following firms: Quality Food Ltd., producing fruit preserves and breakfast cereals and processing ham and bacon; Banks DIH produces beer, soft drinks, syrups of fruits and tomato ketchup; Ricks and Sarce and Bounty Products produce sauces, flavourings, spices and rice flour; jams are produced by Adventure; Popeye Foods, B.V. Biscuits, Continental Biscuits and the National Milling Co. produce biscuits for the local market. The small size of the local market offers little scope for major expansion of food processing activities. Industrial fishing is done through 132 trawlers, of which 106 are used for prawn fishing which is processed in two plants. The packaging of prawns and smaller shrimps for export is relatively developed, partly due to a joint venture with Japan.

Other agro-industries

The public sector leather industry (a tannery) in New Amsterdam operates at a reduced rate due to scarcity of tanning agents and chemicals. Local manufacture of leather goods continues to remain at craft stage. Guyana has one large textile mill (Santana Textiles) with a capacity of some 3 million

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1/ For details pertaining to estimated capacity and possible improvements in capacity utilization under rehabilitation, see World Bank, Guyana: A Framework for Economic Recovery, May 15, 1985, Report No. 5592-GUA.

metres per annum. Currently it is operating wholly on imported cotton from China, but will soon produce a cotton polyester blend.

Forest-based industries

According to the Forestry Commission, there are 79 sawmills in Guyana. Average yearly production for the period 1982-84 was 29,040 metres, implying utilization of only 39 per cent of installed capacity. Underdeveloped infrastructure and worn-out logging and sawmilling machinery hamper the development of Guyana's timber industry.

Capital goods

Local production of capital goods is very limited and virtually all capital goods are imported. The users of capital goods are the dominant economic sectors, namely bauxite, sugar and rice. In line with the government's aspiration to develop the indigenous capacity for local manufacturing of capital goods with a view to saving foreign exchange and to enhance the technological capability of the country, metal and engineering industries have been established both in public and private sectors.

4.2.3 Manufacturing problems and prospects

Guyana has suffered a period of sharp decline in recent years as a result of a sharp fall in output of the two main productive sectors (bauxite and sugar), because of technical, labour and managerial problems, as well as deteriorating terms of trade. Measures to revive the economy have largely failed to date, in part because of slow implementation and the continued poor performance of the two main productive sectors, which have left the country seriously short of foreign exchange. The declared priorities for development emphasize the lead role for agriculture and food self-sufficiency, improved resource allocation, institutional reform and solutions to the domestic and external debt problems. There has also been renewed emphasis on industrial development in the small/medium and co-operative sectors, particularly for export.

Within the industrial sector the priority is to achieve some significant diversification of productive capacity, while at the same time developing support and service industries linked to the major productive sectors, particularly where import substitution of inputs and intermediates can be achieved. The existing private and co-operatives sectors are very small and much below their potential given Guyana's natural resource endowment and the availability and cost of labour. The difficult foreign exchange and power supply situations in recent years have constrained the development of the manufacturing sector.

Current production levels in manufacturing enterprises are substantially less than installed capacities, particularly in the production of garments, edible oils, margarine, flour and biscuits. Prospects for growth depend on the pace at which productive capacity in bauxite and sugar industries can be upgraded and rehabilitated, and idle capacity in the manufacturing sector refurbished and brought into production.

Plans are under way for rehabilitating the country's bauxite/alumina industry, and these plans may come into fruition in the near future. Nevertheless, Guyana's ability to generate foreign exchange to procure

equipment, spare parts and vital raw materials to revitalize manufacturing activities remains a critical factor.

The projected upturn of exports in 1987 would still be far below the foreign exchange resources needed to import industrial raw materials, spare parts and other inputs required to induce substantial recovery. The signing of a countertrade agreement with Venezuela whereby oil products will be paid with bauxite is expected to reduce fuel shortages in 1987.

One potential product for export to the Caribbean countries is the furniture industry because of Guyana's raw material potential and the lack of timber resources in all CARICOM countries other than Belize and to a lesser extent Dominica. Successful production of components for wooden houses with a view to penetrating the CARICOM market calls for the development of timber engineering skills. The most immediate project in the exploitation of Guyana's timber resources is a possible project in which Brazil is interested. There are indications that Brazil is willing to build a road between Guyana's forested interior and the Caribbean coast.

Currently agro-wastes are exclusively used for the generation of energy in the wake of severe shortage of foreign exchange. A number of projects destined for optimal utilization of the country's considerable hydroelectric potential are at varying stages of development. In the event of these projects coming into fruition, agro-wastes of sugar and rice industries, such as bagasse, rice husks and rice straws, could be further processed into a wide range of products: pulp and paper, hardboard, insulation board and particle board, animal feedstuffs, etc. A National Coconut Rehabilitation and Programme is under way and efforts to increase the production of palm oil and soya oil are under serious consideration. The process of industrial diversification could encompass industrial processing of fruits (citrus, pineapple and other tropical fruits) into jams, juices, etc. Good prospects exist for these products in North American and Western European markets.

The immediate need is the substantial flow of external financial assistance to remove the foreign exchange constraint. In the short run, efforts could focus on raising production in the bauxite and sugar sub-sectors to reach their pre-1980 levels. In the long run, policies could be oriented towards expanding and diversifying manufacturing activities with increased involvement of external capital, and with greater participation of the private sector. Substantial joint ventures with US companies to produce methanol, process fruits and vegetables, and participation in transhipment activities are being negotiated.

4.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

4.3.1 Policies and institutions

The government of Guyana has favoured the development of a resource-based manufacturing sector with strong backward linkages in the medium to long term. The government has recognized there is a need to reduce or eliminate the uncertainties about the private sector's role, which have remained even after the adoption of the 1979 Investment Code. The preparation and issue of a new investment code is a matter of high priority if Guyana's investment climate is to be improved, not least because of its likely impact on external

perceptions of the government's willingness to promote private sector initiatives in the development process. Such a code[1/] is thought to be particularly valuable if it were to be associated with three other initiatives:

- the consolidation or reduction of public sector activities in manufacturing or related activities;

- a general streamlining and simplification of the regulations which influence the manufacturing sector;

- the consolidation of a rational system of incentives to encourage export manufacturing and efficient import substitution.

Within the 1981-1983 Structural Adjustment Programme the government introduced a number of export and industrial development policies, in addition to establishing an Export Development Fund with the financial support of the IBRD. A special import licensing scheme was also introduced for the importation of US $3,000 worth of spare parts and machinery without a license provided no official foreign exchange was involved. Consumption taxes have also been remitted on all inputs for manufactured goods for export, and a foreign exchange retention scheme has been established for producers of non-traditional exports. New institutional arrangements include an Export Promotion Council and an Industrial Promotion Council both with private sector participation.

However there are other aspects of government policies which strongly affect the viability of manufacturing enterprises. These are the consumption tax on both imported inputs, which has influenced export competitiveness adversely, and on domestic sales, as well as the prevailing policies towards enclave type manufacturing.

The prime agency for industrial development in Guyana is the Guyana Manufacturing and Industrial Development Agency (GUYMIDA). This agency was established in 1984. The Ministry of Manufacturing and Industrial Development predominantly processed applications for fiscal incentives - a task passed on to its successor. However, the agency also undertakes pre-investment analysis, technical/managerial consultancy and entrepreneurial development programmes. The agency incorporates an industrial development department, which has the task of investment promotion, sectoral and sub-sectoral surveys and studies, business opportunity studies, pre-feasibility analysis, and small enterprise development.

There are 34 State corporations in Guyana active in the non-financial sector. They are engaged in activities which include bauxite mining, sugar and rice production and marketing, agro-based food production, deep sea trawling and shrimping, heavy engineering (including ship building), broadcasting and communications, air transport and commercial operations. There are two main holding companies for these State enterprises; the Bauxite Development Corporation (BIDCO) controls the Guyana Mining Enterprise (GUYMINE), the Guyanan Construction Corporation (GUYSTRUCT), GUYTRADE, and GYBULK. The Guyana State Corporation (GUYSTAC) controls all the remainder. Three corporations, GUYMINE, GUYSUCO, and the Guyana Rice Board together are

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1/ A new investment code is under preparation with World Bank help.

the most important, accounting for over 50 per cent of operating revenues and expenditures in the public sector.

4.3.2 Resources for industrial development

Human resources

In 1984, of the total labour force of 240,000 persons, around 20 per cent was engaged in mining and manufacturing activities. There has been a 20 per cent fall in public sector employment in 1982-85. It has been estimated that as many as 5,000 skilled and semi-skilled persons are leaving the country annually.

The University of Guyana concentrates primarily on the humanities and social sciences. The School of Technology and School of Agriculture were established in 1969. The Inter-American Development Bank sanctioned US $14.6 million to the above institutes to carry out technical and vocational training. The assistance includes training abroad, equipment and operational support, with priority accorded to technology and management. The recently established Management Development Institute is beginning a programme of training for managers.

Agricultural resources

Sugar and rice constitute the country's major agricultural resources which with timber make up 40 per cent of export earnings. Guyana has vast timber reserves; some 84 per cent of the land surface is forested and 20-30 per cent are regarded as exploitable. Annual production of timber averages 150,000 cu. m accounting for 2 per cent of export earnings. Fish is another resource with good export potential; catches in 1985 amounted to 41 million kg, exluding shrimps and prawns.

As part of the diversification programme, efforts were made to revive cotton growing but later it was abandoned. In October 1985, the government announced a G$800 million for a four-year agricultural development plan with a view to increasing production of plantation crops, livestock, fruit, vegetables, fish and cereals. Animal feed will be produced to support an expanding dairy industry.

Mineral resources

Guyana is well endowed with natural resources, of which bauxite is the most important. Guyana is the world's largest producer of bauxite, currently with about 50 per cent of world markets, although this did reach 70 per cent in the early 1970s. Other mineral resources include gold, diamonds, and manganese, although these are not exploited to any significant extent.

The government is planning to promote gold mining. A Canadian company, Golden Star Resources, signed a contract with the Government of Guyana in 1985 to mine for gold at five sites in the Essequibo region.

Finance

Apart from Bank of Guyana, which is the sole bank of issue and is required to maintain a reserve and fiscal agent for commercial banks operating in Guyana, the National Bank of Industry and Commerce is directly involved in

industrial finance. In the wake of financial difficulties, the government intends to allow off-shore facilities to foreign banks.

4.3.3 The role of technical co-operation in industrial development

While a wide variety of institutional infrastructure is already in place, many of the existing organizations, particularly those in the public sector, have less than satisfactory records of achievement in recent years, particularly in the co-ordination and control of productive activities and the management of the substantial resources available. The declared targets for public sector investment in recent years have been increasingly unattainable given the available sources of finance. The whole process of project design and implementation in the public sector therefore requires urgent upgrading, so as to limit investment only to the highest priority projects and to manage implementation much more rigorously. The implications for aid donors are that Guyana will need large infusion of external capital to carry through the proposed recovery and rehabilitation of the economy. There will need to be a move from project to programme assistance, and donors will need to co-ordinate their assistance programmes and give priority to the rehabilitation of existing capital stock and completion of the ongoing investment programme.

Recent institutional developments, such as the establishment of an industrial promotion unit and an export development unit, are likely to need continued support in the short/medium term, particularly with the establishment of appropriate technical services and the creation of an effective framework for extension and promotional activities. At the same time these agencies are likely to need to develop major training capabilities in planning and organizational skills. At the enterprise level there is a need to broaden knowledge and experience of production skills and to address operational difficulties and constraints.

There will also be a continuing need for the supply of technical expertise at the factory level, particularly designed to upgrade supervisory and craft skills on the shop floor. The need for a more diversified industrial structure will have to be met through the development of natural resource-based industries with backward linkages. Assistance at the project level may well be required with the identification and implementation of such new industrial activities. Should the government decide to seek to attract enclave type industries to take advantage of the labour supply, then assistance may also be required for the identification of potential foreign investors or joint-venture partners.

Apart from technical assistance for upgrading the productive process in the bauxite industry, infusion of external assistance is required for enhancing the diversification programmes of the sugar industry. A techno-economic feasibility study is to be undertaken to produce animal feed from cane, hydrolized bagasse and molasses. Other specific areas requiring technical assistance inputs are garments, wood products and furniture which need specific skills in the areas of production and marketing. UNIDO is currently assisting the government in conducting an industrial sector survey, with a view to strengthening the data base for analysis and strategy formulation for integrated industrial development. The survey would facilitate a better understanding of the characteristics of the existing industrial structure and its rehabilitation and revitalization requirements.

APPENDIX 4.A

Manufacturing projects assisted by the Commonwealth secretariat, 1981-86

1. Textiles
2. Manufacture of ceramic tableware
3. Development of vine-based products
4. Production of paper from recycled paper
5. Manufacture of coir products
6. Manufacture of surgical bandages, terry towels and bed sheets
7. Commercial production of cotton polyester fabrics
8. Guynec Foundry
9. Commissioning of ceramic tableware factory
10. Upgrading of productivity and product quality of brick factories
11. Manufacture of handmade paper and exercise books
12. Development of bicycle industry
13. Improving productivity and performance of a garment manufacture unit
14. Tools and wood products manufacture
15. Re-establishing production operations of an existing glassworks

APPENDIX 4.B
Leading companies by sector, 1986

Agriculture

Guyana Sugar Corporation
Guyana Rice Board
Guyana Forestry Commission
Guyana Timbers
Guyana Fisheries

Mining and Engineering

Guyana Mining Enterprise
Guyana Bauxite Development Co. (BIDCO)
Guyana National Engineering Co.
Guyana Geology and Mines Commission

Manufacturing and Trade

Guyana Liquor Corp.
Guyana Stores
Guyana Pharmaceutical Corp.
Banks DIH
Ricks & Sari Industries
Guyana (Santana) Textiles
Demerara Distilleries
William Fogarty
Edward B. Beharry
Guyana Refrigerators
Guyana Footwear
Lyson Industries
Fries Furniture Factory
T. Geddes Grant
Associated Industries
Ideal

Source: South, April 1986.

APPENDIX 4.C

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

REPUBLIC OF GUYANA

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	Project Title
IO/INFR	(31.1.02)	RP/GUY/74/001	Standardization and testing activities
IO/INFR	(31.3.D)	IS/GUY/75/009	Assistance to small industries corporation
IO/INFR	(31.3.D)	SI/GUY/75/ŁJ9	Assistance to small industries corporation
IO/INFR	(31.3.J)	TF/GUY/82/002	Associate expert (multifund to DP/GUY/81/003)
IO/IIS/INFR	J12101	DP/GUY/81/003	Research and development support for the Institute of Applied Science and Technology (phase II) (continued under DG/GUY/81/003)
IO/FCTY	(31.3.00)	IS/GUY/72/009	Industrial management clinic
IO/FCTY	(31.4.A)	SI/GUY/80/801	Management and start-up assistance to Santana Textile Mill, phase I
IO/FCTY	(31.4.A)	SI/GUY/81/801	Management assistance to SANATA Textile Mill
IO/IIS/FCTY	J12208	DP/GUY/79/007	Guyana State Corporation (GUYSTAC) industrial consultancy unit (continued under DP/GUY/83/001)
IO/IIS/FCTY	J12208	DP/GUY/83/001	GUYSTAC management consultancy - preparatory assistance (Associated Agency: UN/DTDC)
IO/TRNG	(31.5.B)	RP/GUY/76/001	Training programme in the field of pharmaceutical industries
IO/TRNG	(31.5.B)	RP/GUY/76/002	Industrial training in the field of patents and licenses
IO/TRNG	(31.5.B)	RP/GUY/82/001	Training on computer systems
IO/AGRO	(30.6.01)	IS/GUY/75/007	Establishment of a textile factory
IO/AGRO	(31.7.A)	UC/GUY/83/062	Structural timber testing
IO/T/AGRO	J13101	SI/GUY/84/801	Survey of, and technical assistance to the furniture industry
IO/MET	(31.8.C)	IS/GUY/75/008	Evaluation of mini steel plant project
IO/MET	(31.8.C)	SI/GUY/75/808	Evaluation of mini steel plant project
IO/ENG	(31.9.B)	SI/GUY/74/819	Agricultural machinery manufacturing project (formulation mission)
IO/ENG	(31.9.Z)	SI/GUY/79/801	Assistance to Guyana Association of Professional Engineers
IO/ENG	(31.9.Z)	VC/GUY/75/083	Maintenance week
IO/T/ENG	J13316	SI/GUY/84/803	Assistance to GUYUSCO Central Repair Workshop

1. The completed projects (cont.)

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	Project Title
IO/CHEM	(30.5.02)	IS/GUY/74/013	Assistance to the pesticide formulation industry
IO/CHEM	(30.5.02)	TS/GUY/73/001	Establishment of a national pesticide formulation industry
IO/CHEM	(32.1.A)	IS/GUY/75/001	Assistance to the kaolin and cement industry
IO/CHEM	(32.1.A)	SI/GUY/75/801	Assistance to the kaolin and cement industry
IO/CHEM	(32.1.A)	SI/GUY/77/802	Assistance to the establishment of a national clinker grinding plant
IO/CHEM	(32.1.D)	DP/GUY/77/001	Consultant in opotherapeutic work
IO/CHEM	(32.1.D)	SI/GUY/78/801	Pharmaceutical adviser

2. The approved and operational projects

DG/GUY/81/003*	IO/IIS/INFR	J12101	Research and development support for the Institute of Applied Science and Technology (phase II) (continuation of DP/GUY/81/003)
DP/GUY/86/001	IO/IIS/PLAN	J12413	Industrial sector survey
DP/GUY/86/005	IO/T/AGRO	J13101	Development of secondary wood processing industries

** Total allotment $1 million or above.

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BARBADOS

BASIC INDICATORS 1
The economy

GDP (1986):	US $1,182.8 million[a/]						
GNP per capita (1983):	US $3,946[a/]						
Population (1984):	250,000[b/]						
Annual population growth rate (1974-84):	0.3 per cent						
Density of population (1984):	580 per sq. km arable land						
Labour force (1985):	113,000 persons						
Growth of real GDP: (per cent)	1981	1982	1983	1984	1985	1986	
	-1.9	-4.3	-0.4	3.5	0.3	5.0	
Distribution of GDP (1985): (percentage)	Agriculture					7.2	
	Mining and quarrying					2.0	
	Manufacturing					10.3	
	Tourism					9.5	
	Wholesale and retail trade					21.7	
	Other					49.3	
Demand components of GDP (1985): (percentage)	Personal consumption					60.0	
	Government consumption					19.0	
	Gross capital formulation					16.4	
	Exports					64.6	
	Imports					-60.0	
Sectoral distribution of employment (1985): (percentage)	Agriculture					8.5	
	Manufacturing					13.0	
	Construction					7.7	
	Distributive trade and hotels					21.8	
	Other					49.0	
Consumer price inflation: (per cent)	1981	1982	1983	1984	1985	Jan.1986	
	14.6	10.3	5.2	4.7	3.9	1.9	
Exchange rate: (Barbadian dollar equivalents to US $1)	1981	1982	1983	1984	1985	Nov. 1986	July 1987
	2.0	2.0	2.0	2.0	2.0	2.0	2.0

a/ Estimate.
b/ Mid-year estimate.

BASIC INDICATORS 2
Resources

Land area:	431 sq. km 65 per cent cultivated
Production of major crops (1985):	Sugar (100,400 tonnes), onions (549 tonnes), peanuts (32 tonnes)
Other crops (1985): (tonnes)	Yams (5,400), sweet potatoes (3,100) carrots (2,359), tomatoes (1,219), cucumbers (1,744), cabbage (1,308)
Livestock (1984): ('000)	Cattle (18), sheep (54), goats (32), pigs (50)
Fish production (1984):	5,774 tonnes
Minerals (1984):	Oil production (634,900 barrels) Natural gas (25.3 million m^3)

BASIC INDICATORS 3
The manufacturing sector

MVA (1985): US $231.7 million (in current prices)

Real growth rate of MVA: (per cent)

1980	1981	1982	1983	1984
-3.6	5.4	2.5	1.9	-9.5

Distribution of MVA (1985): (percentage)

Food, beverages and tobacco	33.6
Metal products and assembly type goods	28.5
Textiles and wearing apparel	15.9
Paper, paper products, printing and publishing	8.8
Chemicals, petroleum refining and non-metallic products	7.8
Other	5.4

Employment in manufacturing (1985): 14,690 persons

Manufactured exports (1985): BD$434.9 million

BASIC INDICATORS 4
Foreign trade and balance of payments

Exports (1985):	US $351.9 million	
Composition of exports (1985): (percentage)	Electrical components	61.2
	Sugar and molasses	11.7
	Clothing	9.1
	Chemicals	4.2
	Food and beverages	2.3
	Other	11.5
Main destinations (1985): (percentage)	USA (68.5), Guyana (13.4), Trinidad and Tobago (7.6), U.K. (7.7), Canada (2.8)	
Imports (1985):	US $607.3 million[a/]	
Composition of imports (1985): (percentage)	Electrical components and machinery (32.5)	
	Food and beverages (15.3)	
	Fuels (5.2)	
	Construction materials (4.9)	
	Other (42.1)	
Balance of payments (1985): (current account deficit)	US $60.0 million	
External public debt (1985):	US $352.1 million	
Debt service ratio (1985): (as per cent of export earnings)	5.8 per cent	
International reserves (Sept. 1986):	US $129.3 million	

a/ Estimate

5.1. THE ECONOMY OF BARBADOS

5.1.1 Recent economic trends

The economy of Barbados rebounded well in 1984 with a 7.0 per cent rise in tourism and a 17.4 per cent increase in sugar output, after suffering its most severe external shock in recent times during the 1982-83 world recession. A 3.5 per cent rise in real GDP achieved in 1984 could not be sustained in 1985 as a result of continued decline in world sugar prices, weak international demand for the country's light manufactured exports, and trade restrictions within the CARICOM region. Given this external slump, growth of real GDP slowed down to 0.3 per cent in 1985 - well below the target of 3.5 per cent. Real GDP growth for 1986 has been estimated at 5.0 per cent, slightly above the earlier forecast of 2.5 per cent. The higher growth rate stemmed largely from expansion of tourism and marked improvement in sugar and construction output. In its July 1986 budget the new government, elected in May 1986, reaffirmed a commitment to an economic strategy based on export-led growth, a greater role for the private sector and a wide range of tax concessions to stimulate growth in the economy.

Capital expenditure under the 1986 budget increased by 28 per cent, while recurrent expenditure rose by 7.1 per cent. The budget deficit was estimated at BD$184.1 million which had to be financed mainly from domestic sources. The new government has announced a programme of internal borrowing by issuing treasury bills, debentures and savings bond. A 1.9 per cent increase in the average rate of consumer price inflation in January 1986 represented the lowest rate of increase since 1967. The rate of unemployment declined from 20 per cent in 1985 to 17.5 per cent in June 1986.

Notwithstanding these developments, the country's exports fell by around 10 per cent in 1985 in consequence of falling demand for mainly light manufactured goods, electrical components and textiles. The export of electric components to the USA dominates the country's export profile. In 1985 exports of computer chips made from imported silicon wafer were valued at US $151.2 million. In consequence of operating losses resulting from competition from The Republic of Korea and Japan in a shrinking world market, the US electronics company, INTEL, started a phased closure of its assembly plant in Barbados in September 1986. Sugar, the second principal export item, continues to suffer from low world prices. Exports of textiles particularly to Trinidad and Tobago are restricted by import restrictions and constrained by a massive devaluation of TT$. In 1985 Barbados' exports to Trinidad and Tobago fell by 45 per cent.

International reserves stood at US $129.3 million in September 1986; a decline from its level of US $148.2 million in June 1986 which reflects the widening trade deficit and increased debt servicing requirements. Barbados' total public external debt rose from US $301.8 million in 1984 to US $352.1 million in 1985, while the ratio of debt service to export earnings increased from 3.4 per cent to 5.8 per cent during the same period. Total debt service requirements for 1986 were estimated at US $65 million, a rise of 51 per cent.

The Five-Year Development Plan (1983-88) aims at gradual diversification of the economic base through the development of export-oriented light manufacturing activities services and non-sugar agriculture.

5.1.2 Economic structure

Barbados possesses an open economy of limited size and with a small domestic market; as such it is sensitive to external influences. The island is quite densely settled and has very limited resources; yet over the last two decades by means of an outward-looking development startegy, Barbados has made substantial progress in developing its economy, achieving an average growth of 5 per cent per annum. Living standards have improved with increases in real wages; low population growth permitted per capita income to grow by 2 per cent per annum. During this period tourism and agriculture provided the main sources of growth, but the economic base was diversified; .

The most fundamental change in Barbados has been in the economic development environment. Hitherto development has been demand-led; the growth of tourism was in response to strong external demand, particularly in Europe and North America. Sugar enjoyed a protected environment, intially under the Commonwealth Sugar Agreement, and later under The Lomé Convention. Export manufacturing was nurtured under the protection of CARICOM and responded to growth in the thriving markets of Jamaica and Trinidad and Tobago in the 1960s and 1970s. However these traditional markets are no longer assured. There are now many competitors in the Eastern Caribbean for the tourist dollar; the marketing of sugar is subject to quotas, with low prices for any excess sold above quota and substitution of sugar by high-fructose corn syrup. The CARICOM market for manufactures has succumbed to regional economic pressures, which have severely curtailed regional markets for Barbadian products. Extra-regional markets are an unfamiliar and competitive alternative, characterized by rapidly changing technologies. One further factor influencing further development is the changing exchange rate regimes experienced by both competitors and trading partners as devaluations have occurred. There is little doubt that Barbados, with its relatively high wage costs and fixed exchange regime has lost some of its competitiveness in recent years.

Table 5.1 shows that the GDP share of sugar declined from 4.1 per cent in 1981 to 3.2 per cent in 1985, and that of non-sugar agriculture increased from 3.5 per cent to 4.0 per cent during the same period. In nominal terms, value of non-sugar agricultural output stood at BD$ 89.3 million in 1985. Cotton production increased fourfold, but the weak performance of several vegetables resulted in a marginal decline of non-agricultural output by 0.9 per cent in 1985. The manufacturing sector's share of GDP registered a steady but slow increase until 1984 and fell strongly in 1985, reflecting a 9.5 per cent fall in real MVA in 1985. As the manufacturing sector continued to face problems in penetrating regional markets, production of textiles and wearing apparel fell by 12.0 per cent in 1985. Although food processing industries improved significantly in recent years, metal products and assembly type industries suffered sharp declines in growth rates in 1985. The wholesale and retail trade sectors retained their role as the leading income generators by contributing above 20 per cent of GDP in the first half of the 1980s, excepting in 1983 and 1984. The share of tourism in GDP fell from 12.1 per cent in 1981 to 9.8 per cent in 1983. It increased to 10 per cent in 1984 to fall marginally in 1985.

The share of government consumption expenditure in GDP reached 19 per cent in 1985, compared with 16.4 per cent and 17 per cent in 1983 and 1984 respectively. Personal consumption expenditure rose by 4.2 per cent in 1985.

Table 5.1 Distribution of GDP by sector of origin, 1981-85
(percentage)

Sector	1981[a/]	1982[a/]	1983[a/]	1984[a/]	1985[b/]
Sugar	4.1	3.2	3.0	2.8	3.2
Other agriculture and fishing	3.5	3.7	4.1	3.9	4.0
Mining and quarrying	0.8	0.9	0.9	1.4	2.0
Manufacturing	11.1	11.5	12.6	12.7	10.3
Electricity, gas and water	2.3	2.5	2.8	3.3	3.3
Construction	8.1	6.8	7.0	6.3	5.1
Wholesale and retail trade	21.6	22.3	19.9	19.9	21.7
Tourism	12.1	10.1	9.8	10.0	9.5
Transport, storage and communication	6.6	7.6	8.1	8.3	8.3
Finance, insurance and business services	12.3	14.0	13.6	13.1	13.3
General services	4.1	4.3	4.3	4.1	4.0
Government services	13.5	13.1	13.9	14.3	15.3
	100	100	100	100	100

Source: Barbados Statistical Services.

a/ Revised.
b/ Provisional.

Gross capital formation declined from 17.4 per cent to 16.4 per cent of total expenditure in 1985, partly reflecting the sluggish investment climate in recent years.

The priority tasks of the new government are:

(a) to diversify markets and products, and vigorously pursue new activities, such as offshore financial services or linkage industries, which would help maximize local value added;

(b) to rationalize industry operations and improve efficiency;

(c) to re-formulate fiscal incentive reforms and packages, appropriately targetted and monitored, which favour extra-regional exports;

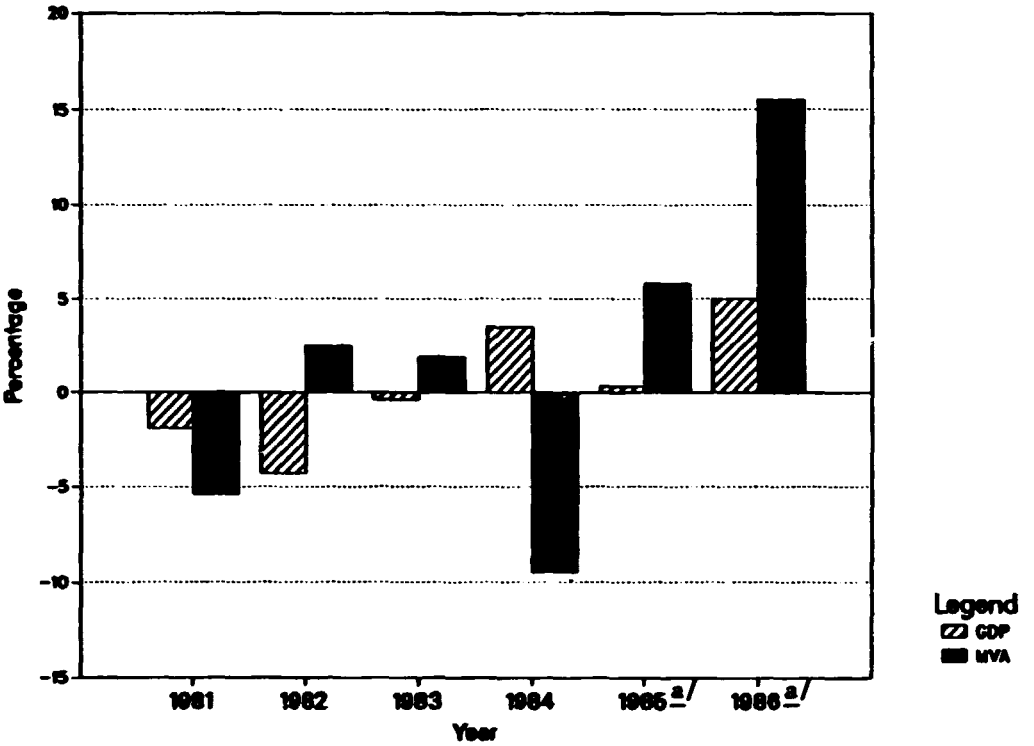
(d) to improve the supply of infrastructure and other facilities, management and technical expertise, labour, financial and other operational information necessary for good decision-making;

(e) to monitor and control wage increases; and

(f) to maintain appropriate exchange rate policies.

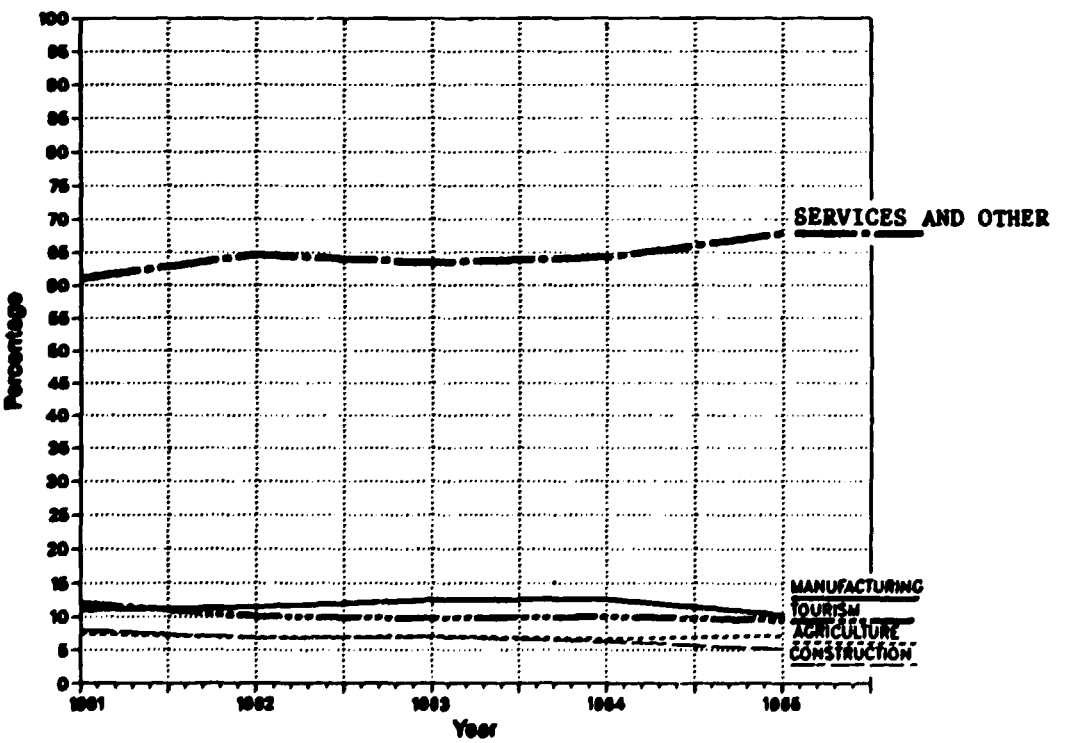
MANUFACTURING TRENDS

REAL GROWTH RATES OF GDP AND MVA, 1981-1986

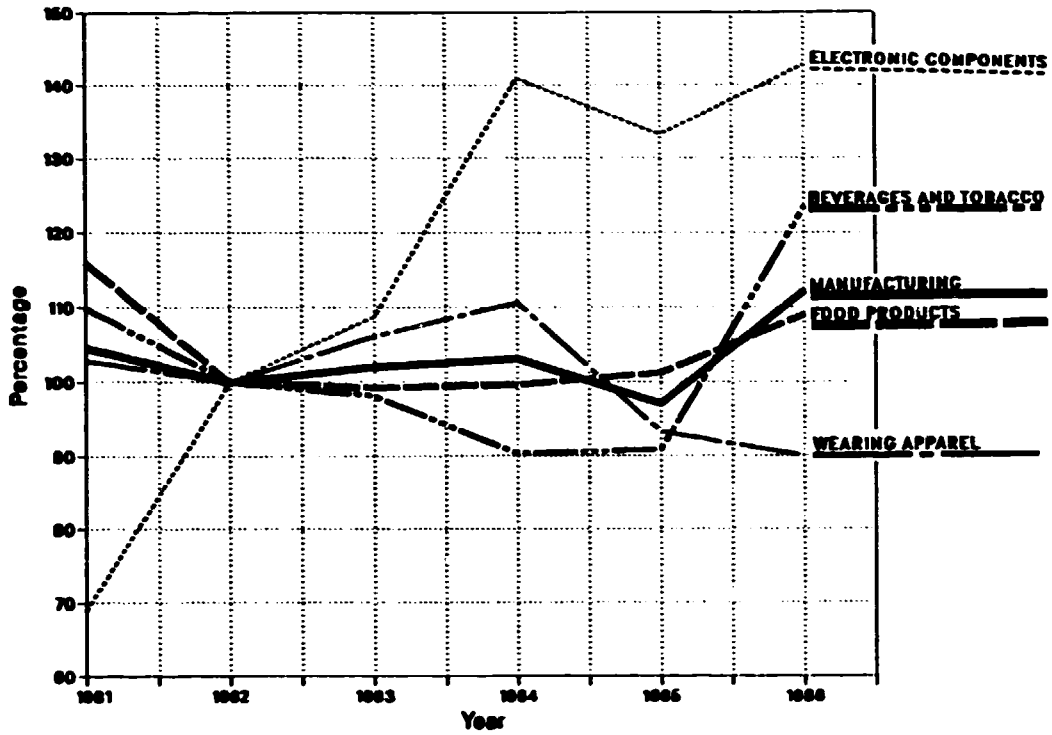


a/ The dark bars representing annual growth rate of MVA show annual growth rates of index of manufacturing output for 1985 and 1986.

DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1981-1985 (in current prices)

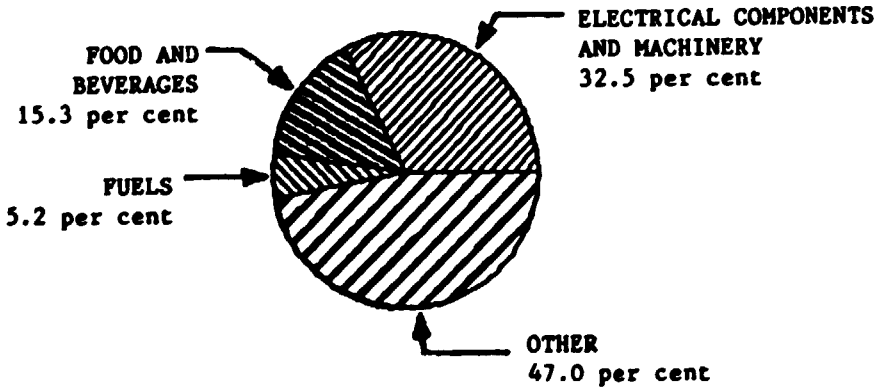


INDEX OF MANUFACTURING OUTPUT, SELECTED PRODUCTS, 1981-1986
(1982=100)

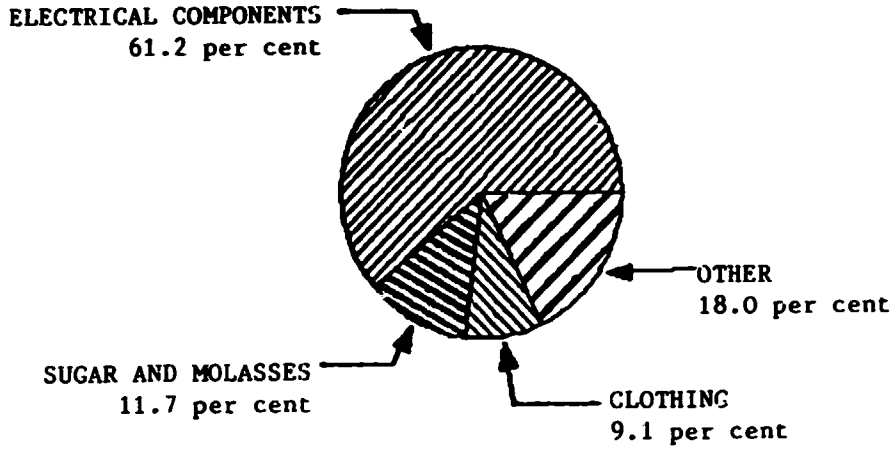


EXPORTS AND IMPORTS

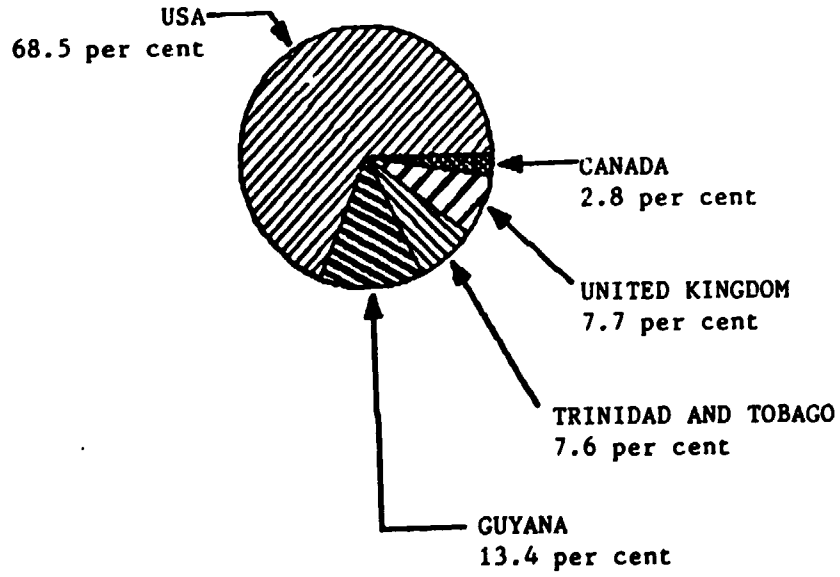
COMPOSITON OF IMPORTS, 1985



COMPOSITION OF EXPORTS, 1985



DESTINATION OF EXPORTS, 1985



5.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

5.2.1 Overview of the manufacturing sector

The manufacturing sector in Barbados can be divided into two distinct parts according to ownership. Locally owned firms produce furniture, garments, engineering products, chemicals and food products for domestic and regional (CARICOM) markets. Multinational firms in Barbados produce electrical and electronic components, data processing services, engineering products and garments, mainly for the North American market. The problems facing these two groups differ considerably.

One of the major manufacturing activities is the processing of sugar. Secondary industries include edible oils, soap, margarine and lard compounds, together with textiles and clothing, paints, paper products, furniture and electronic components. In 1984 a major cement plant came into operation, which should more than meet local requirments and produce an exportable surplus.

The contribution of the manufacturing sector to GDP increased steadily in value during the late 1970s, and in 1981 physical output was 40 per cent higher than ten years before. In the 1980s, however, growth has slowed considerably and recently the manufacturing sector has only just held its share of GDP.

Local manufacturing enterprises have been affected by the recent marked decline in CARICOM trade in the face of severe economic difficulties in Jamaica and then Trinidad and Tobago - the two major regional markets. It has been estimated that roughly half of Barbadian manufactures were sold in the regional market place; between 1977 and 1982, Barbadian exports to CARICOM markets increased by an annual rate of almost 25 per cent. This trend reversed in 1982 and exports to CARICOM fell by 2.9 per cent in 1983 and by 8.3 per cent in 1984. Largely as a consequence, manufacturing employment in Barbados fell by 17 per cent between 1983 and 1984.

Faced with a shrinking CARICOM market the government offered fiscal incentives, including an allowance for market research and development at 150 per cent of actual expenditure incurred, an initial investment allowance of 40 per cent on the purchase of new capital equipment and an increase on the maximum tax rebate on extra-regional sales from 50 per cent to 80 per cent.

5.2.2 Growth, structural change and performance

During the 1970s the manufacturing sector in Barbados emerged as a leading contributor to overall economic growth. Its growth rate kept pace with the other fast growing sector, tourism, and outpaced the leading employment sectors. Electronic components was the leading growth subsector in terms of output, employment and exports. By 1981 the manufacturing sector employed around 15 per cent of the country's labour force and accounted for more than half of the foreign exchange earnings for merchandise. Given Barbados' limited natural resources and small domestic market, the expansion of manufacturing activities to assume a relatively diversified economic structure is a significant achievement.

Before the spurt in industrial activities, light manufacturing in Barbados was confined to products such as biscuits, soft drinks, shirts etc. Between 1971 and 1982 the manufacturing sector grew at an annual average rate of 5.3 per cent, compared with 2.3 per cent overall growth rate achieved by the economy along the path of industrial diversification. The export-oriented industries have recorded consistent growth, producing a variety of goods - children's wear, electronic components, cooking utensils, etc. Today the Industrial Development Corporation rents factory space to over 200 manufacturing plants of varied types in its ten industrial parks scattered all over the island.

Table 5.2 shows that the index of industrial production (1982 = 100) fell from 108.2 in 1984 to 104.6 in 1985 in consequence of falling production levels in the major branches; electronic components declined by 20.3 per cent, wearing apparel by 15.6 per cent, chemicals by 11.1 per cent and wooden furniture by 12.4 per cent. There has been much less growth amongst companies operated by multinational corporations in the last two years; indeed in contrast to their performance in the early 1980s, output and employment seem to have declined since 1984. This is largely the result of world-wide recession and excess inventories. In addition the very success and increased prominence of the electrical components subsector has somewhat increased the economy's vulnerability to world trade cycles. In 1985 exports of electrical components amounted to over 60 per cent of Barbados' total manufactured exports.

Table 5.2 Index of industrial production, 1981-86
(1982 = 100)

	1981	1982	1983	1984	1985	1986[a/]
Total industries	103.7	100.0	104.4	108.2	104.6	117.9
Mining and quarrying	100.1	100.0	118.5	161.6	174.0	163.9
Electricity and gas	98.3	100.0	116.1	121.7	130.2	140.3
Manufacturing	104.6	100.0	102.1	103.2	97.2	112.3
Food	116.0	100.0	99.3	99.7	101.3	109.1
Beverages and tobacco	109.9	100.0	98.2	90.4	90.9	123.5
Wearing apparel	102.9	100.0	106.2	110.7	93.4	90.0
Wooden furniture	124.5	100.0	116.8	115.9	101.5	96.4
Chemicals	107.2	100.0	97.2	83.9	74.6	117.3
Petroleum products	100.0	100.0	97.5	99.5	103.7	123.7
Other non-metallic mineral products	134.2	100.0	84.3	77.8	87.2	155.2
Electronic components	69.0	100.0	108.2	141.0	133.3	142.8
Other	108.9	100.0	102.8	95.2	87.0	100.9

Source: Barbados Statistical Services.

a/ July 1986.

Table 5.3 presents information on the structure of manufactured exports during 1982-85. The table vividly reveals that the largest exporters are no longer the sugar and garment industries but those engaged in assembling electronic components and specialized computer parts. While the share of electronic components in manufactured exports increased from 32.1 per cent in 1982 to 60.6 per cent in 1985, that of sugar and clothing declined markedly during the same period.

Although the manufacturing sector in Barbados performed well during the 1970s and early 1980s, it experienced severe setback in recent years. Falling export orders from the regional market, particularly from Trinidad and Tobago and Jamaica, resulted in widespread production cuts and a sharp fall in the sector's export earnings. While trade earnings and massive devaluations of

Table 5.3 Value of manufacatured exports, excluding re-exports, 1982-85
(BD$ '000)

	1982		1983		1984		1985	
	BD$	Per cent	BD$	Per cent	BD$	Per cent	BD$	Per cent
Sugar	60,190	16.2	38,712	6.7	57,269	9.8	50,264	10.1
Molasses and syrup	6,932	1.9	7,140	1.2	8,365	1.4	7,626	1.5
Rum	5,365	1.4	4,853	0.8	6,531	1.1	7,979	1.6
Lard and margarine	5,545	1.5	5,335	0.9	6,400	1.1	3,178	0.6
Electronic components	119,462	32.1	178,958	30.8	334,097	57.2	301,056	60.6
Clothing	65,660	17.6	69,263	11.9	64,800	11.1	44,956	9.1
Furniture	11,196	3.0	12,598	2.2	4,437	0.8	1,242	0.3
Insecticides	10,258	2.8	11,249	1.9	8,640	1.5	8,535	1.7
Cement (grey)	...	...	...	...	2,147	0.4	10,160	2.0
Total selected exports	284,608	76.4	328,108	56.4	492,685	84.4	434,996	87.6
All other exports	88,019	23.6	253,466	43.6	90,983	15.6	61,475	12.4
Total exports	372,627	100.0	581,574	100.0	583,668	100.0	496,471	100.0

Source: Barbados Statistical Services.

currencies in the neighbouring countries adversely affected the garments industry, the world-wide semi-conductor production glut hit the electronic industry even harder, leading to the phased closure of INTEL which employed around 100 workers in early 1986. In August 1985, CORICOM shut its components plant indefinitely while TRW placed its electronics plant for sale in August 1986.

The Barbados' sugar industry continues to suffer from unfavourable cost-price structure. The European Economic Community (EEC) price of sugar in BD$ fell for the fifth consecutive year, while the world sugar price fell for the fourth consecutive year. Despite the introduction of mechanical harvesting and collecting, structural problems relating to large and inefficient estates continue to persist. The government has initiated supportive programmes in pursuit of rehabilitating the country's sugar industry. Direct grant during 1982-85 totalled BD$ 62 million, and a further grant of BD$ 10 million was sanctioned in 1986. The government is planning to reduce the area under sugar cane cultivation from 32,000 to 25,000 acres in line with a lower production target of 90,000 tonnes for 1987. The revised production target will be sufficient to meet the export contracts and domestic requirements.

Import based food processing, beverages and tobacco, accounting for 33.6 per cent of MVA, grew by 12.9 per cent in terms of value added. Total exports in these sectors increased significantly in 1984 with rums, molasses and margarine accounting for around 50 per cent of exports in this sector. Overall increases in fruit jams, meat and meat products, tobacco manufactures and non-aerated beverages also contributed to the improvement of exports. However, exports of lard and margarine, molasses and syrup fell sharply in 1985.

Barbados' furniture industry suffered a 11 per cent decline in 1985, and its production index fell to 96.4 in July 1986 (1982 = 100). Its share in manufactured exports fell from 3.0 per cent in 1982 to 0.3 per cent in 1985. Almost all timber is imported. There are about 12 main enterprises producing specialized items for export to the USA. They suffer from constraints related to production scheduling, marketing, market research, quality control and general management. There are thirty small manufacturers, none of whom show signs of export potential.

With the establishment of a new State-owned company, Barbados National Oil Company (BNOC) in 1982, a vigorous programme of increased exploration and production was initiated. In recent years production has increased significantly. Barbados now produces over 50 per cent of its domestic consumption requirements of petroleum and petroleum products. Barbados is a signatory to the San José agreement for concessionary oil imports from Mexico and Venezuela. Output of crude oil increased by 7 per cent in 1985, while output of petroleum products increased from 49.2 million gallons in 1984 to 51.5 million gallons during the first ten months of the year 1985.

In consequence of the sharp fall in oil prices in 1986 BNOC decided to reduce the output by 50 per cent and suspend its exploratory drilling programme. The cost of production is estimated at US $14/bl. Had the drilling programme continued, losses could have amounted to BD$ 12 million in 1986, despite grants and loans from Canada.

In comparison with other middle-income countries, wage levels in Barbados are high. Results of a survey[1/] of manufacturing costs in Barbados show that manufacturing labour cost as percentage of total cost tends to vary across sectors from 12.5 per cent in plastics, 12.1 per cent in chemicals, 10.2 per cent in food to 32.8 per cent in furniture and 25.8 per cent in apparel. The survey also indicates that material costs range from a low of 33.9 per cent in the manufacture of wooden furniture to a high of 53.25 per cent in the manufacture of food and beverage products. Attempts to improve the competitive position of firms with such a cost structure in order to enable them to compete successfully in export markets impose hard choices on policy-makers and management.

The limited management capabilities of many of the local, privately owned, small firms are a particular weakness. Where the owner is sole proprietor and manager, there is very little delegation of authority; management tools such as cost control techniques, budgetting and monthly financial statements are often lacking, even in some enterprises where there is trained middle management. These deficiencies exacerbated financial difficulties experienced in declining market situations, effectively limiting financial reserves and increasing the risk of failure, so that investors/entrepreneurs themselves become more risk-averse. Success in hard currency markets requires stronger management capabilities by the majority of Barbadian firms to-date.

5.2.3 Manufacturing problems and prospects

The loss of regional markets and adverse trends in extra-regional markets have highlighted a number of structural problems which characterize locally owned manufacturing enterprises. These are:

(a) a shortage of top-level management skills, particularly with regard to budgetting and cost control;

(b) the relatively high labour costs, intermediate inputs and transportation;

(c) widespread under-capitalization and under-utilization of capacity;

(d) very small-scale operations, typically under the sole control of owner/manager;

(e) unfamiliarity with extra-regional markets and their discerning requirements;

(f) risk aversion on the part of many local entrepreneurs when faced with extra-regional markets; and

(g) lack of quality control.

In the CARICOM market with its small volume, high mark-ups, and strong similarities to Barbados, these problems have not been critical. However, it is unlikely in the foreseeable future that the CARICOM market will provide sufficient market opportunities to generate the additional employment and

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1/ For details see, IDC, Impact, June 1986, Vol.I, No.1, pp.9-10.

foreign exchange which Barbados itself requires. The need to export to extra-regional markets, particularly to Europe and to North America, therefore has become more pressing. These markets require high standards of quality and design, low margins and prompt deliveries. Only a few of the leading, locally owned enterprises have the ability at the present time to operate at this level.

In the wake of adverse trends in extra-regional demand for the main Barbardian export products - electronic components and clothing - efforts could be made to widen the range of products assembled in Barbados. The country's success in the new competitive lines of production depends on its ability to meet satisfactorily the supply and quality demands of their potential clients. Apart from new ventures, efforts could also be directed towards the underdeveloped industries. The wood-working industry is still considered underdeveloped due to the lack of important mechanisms for its improvement. Investment in equipment and an efficient marketing system are urgently needed for rehabilitating the wood industry.

The future of the manufacturing sector in Barbados is to a great extent dependent upon the country's ability to attract joint ventures between local and foreign investors to foster the process of industrial diversification. The joint venture approach could enable Barbados to have greater access to extra-regional markets.

5.3. POLICIES, AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

5.3.1 Policies and institutions

Since 1951 the government of Barbados has provided incentives to encourage industrial development and promote entrepreneurial activities. In 1974 the Fiscal Incentives Act sought to harmonize fiscal incentives with the provisions of the CARICOM Agreement on the Harmonization of Fiscal Incentives. In addition to these fiscal incentives the government has provided entrepreneurs with additional support and assistance, such as factory space and training grants.

Within the framework of the 1983-88 Development Plan, the manufacturing sector was identified as a lead sector in the development process, and growth of output was expected to average 3 per cent per annum reaching US $134 million by the end of the Plan period. The US sponsored CBI scheme was expected to give a major boost to the manufacturing sector, enabling Barbados to move into a more skill-intensive phase of industrialization based on a partnership between local private and foreign capital. The strategy was threefold:

- to increase efforts to tap extra-regional markets in product areas which draw on Barbados existing productive capacity and resource configuration;

- to widen the scope of domestic import substitution in cases where there is a positive net foreign exchange result or where such activities increase linkages with other domestic sectors, e.g. the production of cement, crafts and agro-industrial commodities;

- to increase penetration of the CARICOM market, particularly by intermediate and smaller enterprises. It was the government's aim to halve unemployment from 1983 levels of 16 per cent. An additional objective was to broaden the base for foreign exchange earnings from the production of manufactured goods for export.

The targets of the 1983-1988 Plan were to be achieved through the following mechanisms:

1. Increased productivity and more effective utilization of existing capacity;

2. Expansion of investment in existing production facilities;

3. New investment in non-traditional areas, particularly high skill activities compatible with domestic wage levels;

4. Diversification of manufacturing activities with emphasis on export oriented industries; and

5. Increased attention to skill and management training requirements.

The following constraints on increased production were to be addressed:

1. Slow growth in domestic savings and investment;

2. Limited access to extra-regional markets;

3. Limited marketing capabilities and market intelligence;

4. Shortage of skilled manpower; and

5. Lack of local investors to participate in industrial projects.

The government of Barbados welcomes direct investment by non-residents, provided it is financed from approved external sources. Exchange control permission is required before a non-resident investor can hold shares in Barbadian corporations. The Barbados Industrial Development Corporation (BIDC) is responsible for the promotion of industrial activities and attracting investment. BIDC provides factory space on ten industrial estates and assistance is given for the development costs of new factory sites.

Barbados, like other CARICOM member states, has harmonized its fiscal incentives offered to foreign investors. Exemption is provided from customs duty for imports of plant, equipment, machinery, spare parts, raw materials and components, and exemption holidays from profits tax. In Barbados profits tax exemption applies for varying periods of 6, 8, or 10 years according to the amount of value added in relation to the sales price of the end product. Further concessions, with 25 to 50 per cent relief, are available in respect of profits derived from exports outside the CARICOM region. Enclave industries producing solely for export outside the CARICOM region are not required to meet the value added criteria and enjoy duty-free exemptions for an indefinite period. Additional allowances are also available for capital-intensive industries, defined in Barbados as those enterprises with more than US $25 million capital.

The repatriation of original investment plus reasonable profits is permitted where an investment has received approved status. Should the foreign exchange situation so require, dividends may need to be temporarily transferred in instalments.

The Barbados Industrial Development Corporation has invested substantial sums in the construction of factory units some of which are multi-purpose units, while others are detached units. The Corporation units endeavour to promote local development through a rent policy that offers a greater subsidy to companies owned by Barbadian nationals. Within the framework of the national policy towards local companies, small business is given even greater rent subsidy.

The Corporation maintains ten Industrial Parks which are located in the most populous areas of the island. The Corporation provides general services to Industrial Parks, such as roads, water supply, sewerage, layout of lots, electricity supply, landscaping, maintenance, postal service, telephone service, telex services, etc.

The Export Promotion Corporation was established in October 1979 to perform the following functions:

(a) to advise on all matters relating to Barbados' export trade;

(b) to facilitate and encourage the development of export trade;

(c) to adopt or implement measures necessary for the stimulation or promotion of export trade;

(d) to provide research and training facilities and consultant services in the field of export promotion;

(e) to sponsor trade fairs in or outside Barbados and trade missions to or from Barbados;

(f) to engage in the export or the promotion thereof, of specified products;

(g) to compile information and issue publications essential to the export of specified products or of the promotion thereof; and

(h) to monitor and report on the development of Barbados' export trade.

Recently the Export Promotion Corporation undertook a more ambitious work plan to provide a range of services to assist Barbadian manufacturers in developing new extra-regional markets by encouraging the development of a range of quality products which could be marketed in developed markets. While recognizing the difficult regional and international economic climate which hinders market penetration, the Corporation endeavours to seize the opportunities that are available to manufacturers under CBI, Lomé III and various schemes under the Generalized System of Preferences.

The Barbados National Standards Institution offers a number of services, including advice on quality control problems, certification marks for products and laboratory facilities. The Barbados Institute of Management and Productivity provides training for top management and supervisory staff, consultancy services in production, marketing and accounting and prepares economic reports.

5.3.2 Resources for industrial development

Human resources

The size of the labour force increased in 1985 to 113,000 persons. The average number of persons employed fell from 93,100 in 1984 to 92,100 in 1985. Employment as a percentage of the labour force in 1985 was 81.4 per cent, 1.5 per cent lower than in the previous year. Unemployment amounted to 21,200 in 1985, of which 41 per cent were male and 59 per cent female.

Employment in the manufacturing sector fell in 1985 to 12,000, half a pecentage point fall from the previous year. While there was a small increase in the number of males employed, this was outweighed by a greater number of female redundancies. In the services sector employment fell by 700 to 34,500. The pattern here, as in distributive trades, was a small increase in female employment to be over balanced by a larger decrease in male employment; total employment in distributive trades rose slightly to 20,100 in 1985.

The 1983-88 Development Plan envisages strong support for increasing the number of educated and trained manpower to support its efforts to expand, diversify and strengthen its industrial base. To effectively promote this objective, efforts have been made to deepen the co-ordination between the Ministry of Education and other Ministries.

Agricultural resources

Some 65 per cent of the land area is cultivated in Barbados, and in 1984 about half of this area produced cane sugar. However, in recent years Barbados has moved firmly to reduce its dependence on sugar, and output has fallen from 180,000 tonne per annum at independence in 1966 to just over 100,000 tonne in 1985. The major difficulties have been stagnant production and the free market policies of Barbados' two major customers, the USA and the EEC. Sugar's decline has promoted the government to encourage alternative crops such as sea-island cotton, melons and onions; the prospect of substituting many of the vegetables imported for the tourism sector is also one under careful consideration. Consequently Barbados is now virtually self-sufficient in a wide range of green vegetables, carrots, tomatoes and beans, as well as in poultry, meat and eggs, and further experimental crops are under development.

The fisheries sector has benefitted from the recent modernization of the fleet and from improved distribution and storage. The 637 boat fleet landed 5,774 tonnes in 1984, mainly flying fish and tarpon. In the 1983-1988 Plan there is a major US $12 million development project for a new fisheries port at Bridgetown with a view to increasing national production to 10,200 tonnes per annum by 1994.

Energy

Barbados is a small but long established producer of oil. As early as 1870 small quantities of heavy crude were lifted from hand-dug pits on the island. A vigorous programme of exploration and development off-shore has increased production in recent years. The country is looking forward to energy self-sufficiency by the year 2000.

A 200-Kw wind turbine for electricity generation was installed in early 1986. In an attempt to develop alternative sources of energy 2,268 solar motor heaters were established in 1983, with a capacity of 701,000 litres. In 1984, as a by-product of the sugar mills 264,500 tonnes of bagasse (57,925 tonnes of oil equivalent) were produced. The sugar mills generate their own power and contributes to the national grid.

Finance

Barbados is the home base of the Caribbean Development Bank and also has its own development bank. In addition the Barbados National Bank provides finance for commercial and development purposes as well as integrating the functions of former public sector financial institutions. It is the government's intention to develop the off-shore functions of its financial services sector to help diversify the island's economic structure, but its late arrival on the scene and the tougher attitude of the US government to off-shore banking have hindered the growth of these activities so far.

Of the total BD$ 111.985 million commercial bankers' credit to manufacturing branches in January 1986, food and non-alcoholic beverages received BD$ 20.495 million, which accounted for 18.3 per cent of the total commercial bank credit to manufacturing, followed by building materials and metal products (17.3 per cent), textiles (16.6 per cent), petrochemicals (11.1 per cent), alcoholic beverages and tobacco (6.6 per cent), and furniture and wood products (5.5 per cent). Electrical products received less than 1 per cent of commercial banks total lending to the manufacturing sector, reflecting partly the strong financial backing from external sources.

5.3.3 The role of technical co-operation in industrial development

The role of technical co-operation in industrial development is to be viewed in the context of issues confronting policy-makers and development agencies at the sectoral level. High labour and input costs, low financial and operational management capabilities and unfamilarity with extra-regional markets continue to inhibit industrial growth and these constraints are to be addressed through technical co-operation inputs to meet sector sepecific needs. While the rehabilitation of the sugar subsector and the further development of the furniture industry are on the priority list, a sharp decline in the export earnings of garment and electronic components industries calls for further diversification and establishment of new industries. Barbados actually seeks technical co-operation inputs from multinational and bilateral donors:

- to diversify markets and products;

- to pursue vigorously new industrial activities, especially linkage industries which will help to maximize value added locally;

- to rationalize industry operations and improve efficiency;

- to provide appropriate infrastructure and other service facilities; and

- to formulate fiscal incentives to encourage and support restructuring and re-orientation.

In order to provide a national basis for the integration of technical co-operation activities in the development process, the Country Programme is used as a frame of reference. During the 1982-86 UNDP Country Programme, the Barbados Export Promotion Corporation received US $115,560 (27 per cent of total assistance) for computerizing its operations, training and for establishing a design centre to upgrade garment design. It also enhanced the Corporation's activities in critical areas of trade information and marketing research.

The 1986-91 UNDP Country Programme requires US $17,843,790,[1/] of which 72.7 per cent is set aside for agricultural diversification, industrial diversification and expansion. With a view to diversifying food production and food processing, a feasibility study for a multi-purpose food processing plant will be pursued. Other technical co-operation projects in the 1986-91 Country Programme include: assistance to the garment manufacturing industry to develop new markets outside the CARICOM region by improving production techniques; assistance in establishing an industrial repair and maintenance unit; assitance in market penetration by Barbadian rum; and assistance in evaluating the existing export incentives scheme. In the sphere of industrial diversification, the Barbados Industrial Development Corporation is in the process of formulating its Third Handicraft Development Plan, with a view to further diversify the industry's activities. An important technical assistance input is ascertaining the market information that would assist and guide crafts persons in their production and marketing efforts.

1/ Of which UNDP will provide US $1,375,000.

APPENDIX 5.A

Manufacturing projects seeking external assistance

CONTROL NUMBER: 001166
ISIC: 3212
PROJECT NUMBER: BAR/001/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Draperies and Towels
PRODUCT & CAPACITY: 6,000-10,000 square feet/year of draperies
Minimum 10,000 square feet/year of towels
COOPERATION SOUGHT: EQY, LIC, SOT, AFM
TOTAL PROJECT COST: US$ 100,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001167
ISIC: 3212
PROJECT NUMBER: BAR/002/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Woven Items from Banana Fibres
PRODUCT & CAPACITY: Woven handbags, place mats, wall hangings, lampshades, etc.
COOPERATION SOUGHT: AFM
TOTAL PROJECT COST: None PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001168
ISIC: 3220
PROJECT NUMBER: BAR/003/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Garments Manufacture
PRODUCT & CAPACITY: Currently producing trousers, chefs' jackets, skirts and dresses
Blouses and uniforms to be added later
COOPERATION SOUGHT: SCT
TOTAL PROJECT COST: None PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001169
ISIC: 3523
PROJECT NUMBER: BAR/004/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Deodorant Production
PRODUCT & CAPACITY: Introduction of deodorants into wide range of personal care products
COOPERATION SOUGHT: JVE
TOTAL PROJECT COST: None PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001170
ISIC: 3819
PROJECT NUMBER: BAR/005/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Tin Plated Containers
PRODUCT & CAPACITY: 19 million food cans/year
3.8 million aerosol cans/year
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 4,513,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

Manufacturing projects seeking external assistance (Cont.)

CONTROL NUMBER: 001171
ISIC: 3832
PROJECT NUMBER: BAR/006/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Electronic Component Assembly
PRODUCT & CAPACITY: Assembly of circuit boards, cable harnesses, transformers, etc.
10,000 square feet of production space
COOPERATION SOUGHT: SCT
TOTAL PROJECT COST: No add. cost PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001172
ISIC: 3832
PROJECT NUMBER: BAR/007/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Electronic Component Assembly (Subcontracting)
PRODUCT & CAPACITY: Power fuses, magnetic sensors, etc.
COOPERATION SOUGHT: SCT
TOTAL PROJECT COST: US$ 40,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001173
ISIC: 3853
PROJECT NUMBER: BAR/008/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Watch Manufacture
PRODUCT & CAPACITY: Annual capacity: 80,000 men's and ladies' watches
COOPERATION SOUGHT: EQY, LNS, AFM, TRX
TOTAL PROJECT COST: US$ 250,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001174
ISIC: 3111
PROJECT NUMBER: BAR/009/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Canned Corned Beef (Diversification)
PRODUCT & CAPACITY: Production of canned corned beef in addition to current production of pepper sauce, jams and jellies
COOPERATION SOUGHT: EQY, LNS, TEX
TOTAL PROJECT COST: US$ 160,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001175
ISIC: 3211, 3851
PROJECT NUMBER: BAR/010/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Woven Labels, Ribbons, Laces and Surgical Bandages
PRODUCT & CAPACITY: Woven labels: 23,958 gross/year
Woven ribbons and laces: 64,400 metres/year
Surgical bandages: 1,800 kg/year
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 103,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

Manufacturing projects seeking external assistance (Cont.)

CONTROL NUMBER: 001176
ISIC: 3212
PROJECT NUMBER: BAR/011/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Knitted Fabrics (Polyester and Cotton)
PRODUCT & CAPACITY: 1 million metres/year of acrylic fabric for shirts, double interlock circular cotton knitting fabric and double interlock polyester cotton knitting fabric
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 902,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001177
ISIC: 3560
PROJECT NUMBER: BAR/012/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Injection Moulded Plastic Household Products
PRODUCT & CAPACITY: 360 tons/year of plastic household products (buckets, basins, trays, cups and saucers, bowls, containers, etc.)
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 400,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001178
ISIC: 3560
PROJECT NUMBER: BAR/013/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Rigid Polyvinyl Chloride Pipes
PRODUCT & CAPACITY: 240 tons/year of rigid PVC pipes
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 236,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001179
ISIC: 3710, 3811
PROJECT NUMBER: BAR/014/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Forging Operation
PRODUCT & CAPACITY: Forging capacity of 3,200 tons/year of steel
Forged products such as hoes, forks, picks, axes, shovels and spades
Stamped products such as shovels and rakes
Machetes
Custom forgings
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 3,554,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001180
ISIC: 3710
PROJECT NUMBER: BAR/015/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Die Casting
PRODUCT & CAPACITY: Plant capacity: 454 tons/year
Products such as building hardware, electrical hardware, fencing, lighting fixtures, electric frying pans, hand iron sole plates, barbeque components, plumbing and bathroom fixtures, levers, and electric fan bases and base plates
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 705,000 PROJ[illegible] New
STUDY AVAILABLE: Yes LOCAL[illegible]: Yes
PROJECT STATUS: Active AS ON [illegible] 850107

Manufacturing projects seeking external assistance (Cont.)

CONTROL NUMBER: 001181
ISIC: 3819, 3829
PROJECT NUMBER: BAR/016/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Machine Shop
PRODUCT & CAPACITY: 20,000 kg/year of valves (mainly LP gas cylinder valves)
12,000 kg/year of other products, such as screws, pins, pivots, pipe and plumbing fittings, taps and faucets
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 220,000 PROJECT IS: Expansion
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001182
ISIC: 3211
PROJECT NUMBER: BAR/017/V/84-10 COUNTRY: Barbados
PROJECT TITLE: Manufacture of Fabrics for Garments
PRODUCT & CAPACITY: Fabric for T-shirts: 250-300 dozen/day
Fabric for underpants: 150-200 dozen/day
Fabric for pyjamas, dresses, sportswear, etc.
COOPERATION SOUGHT: JVE, EQY, LNS, LIC, SOT, AFM
TOTAL PROJECT COST: US$ 2,415,500 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

Appendix 5.B

Leading companies, 1987
(value in million US$)

Rank	Company	Type of business	Sales/ turnover	Net profit/ (loss)	Net Assets	Employees	Ownership
1.	Barbados Shipping and Trading	W/sale, distrib. services	146.2	7.2	44.1	2,213	L = 96%, F = 5%
2.	Goddard Enterprises	W/sale, distrib. services	89.5	4.6		500	
3.	Plantations Ltd.	General trading	61.4	0.9			
4.	Barbados Light and Power	Utilities	52.5	6.3			
5.	Barbados External Telecom	Telecomminications	42.5	7.8		230	F = 66% (C&W, UK) S = 25%, L = 10%
6.	A.S. Bryden (Barbados)	Distribution	34.6	2.3		340	
7.	Barbados Telephone Co.	Utilities	25.6	1.6			
8.	Cave Shepherd	Consumer retail	25.5	0.7	2.6	450	L = 100%
9.	Barbados National Oil Company	Petroleum	18.2	4.7	21.8	180	S = 100%
10.	Barbados Dairy Industry	Dairy, fruit	13.8	0.9		199	S = 60%, F = 40%
11.	Courtesy Garage	Car distributors, services	11.8			192	
12.	Marriott's Sam Lord's Castle	Tourist resort	11.0			400	F = Marriott's, US
13.	Collins	Pharmaceuticals	10.0		8.0	150	L = 100%
14.	Banks Barbados Breweries	Brewery	8.4	2.4		119	L = 88%, F = 12%
15.	Blades and Williams	Building material, printing	7.5			36	L = 100%
16.	Decto Motors	Car distributors	7.1	0.3		90	L = 100%
17.	Courts (Barbados)	Furniture	6.1	0.9		75	F = 90%(Courts,UK) L = 10%
18.	BBC Holdings	Bottling	5.8	0.4		150	
19.	West India Biscuit Co.	Biscuits	5.1			116	L = 90%, F = 10%

Source: South, April 1987.

S = State L = Local F = Foreign

APPENDIX 5.C

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

BARBADOS

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	Project Title
IO/INFR	(31.1.02)	DP/BAR/71/003	Industrial standardization and quality control
IO/INFR	(32.3.04)	TS/BAR/74/007	Expert assistance to garment factories in Barbados industrial free zone
IO/INFR	(31.3.A)	DP/BAR/72/004	Organization and administration of the National Standards Institute
IO/INFR	(31.3.K)	DP/BAR/77/005	Organization and administration of the National Standards Institution
IO/FCTY	(31.4.C)	SI/BAR/84/801	Improved management through computer support: assistance to the Barbados Industrial Development Corporation (BIDC)
IO/TRNG	(31.5.01)	TS/BAR/74/008	Behavioural consultancy/training techniques
IO/TRNG	(31.5.A)	IS/BAR/75/003	Public/industry interface: behavioural training technique
IO/TRNG	(31.5.B)	RP/BAR/81/001	Use of limestone as building material
IO/TRNG	(31.5.B)	RP/BAR/84/001	Training in computer science
IO/PLAN	(32.1.00)	DP/BAR/73/003	Evaluation of industrial incentives programme
IO/FEAS	(32.3.00)	RP/BAR/73/001	Industrial export promotion
IO/FEAS	(31.6.B)	TS/BAR/79/001	Identification and development of industries
IO/FEAS	(31.6.Z)	SI/BAR/78/801	Identification and development with export potential
IO/AGRO	(30.6.01)	DP/BAR/72/003	Promotion of textile industries
IO/AGRO	(31.7.C)	UC/BAR/78/150	Specific agro-industry development plants
IO/T/ENG	J13316	UC/BAR/85/175	Maintenance week in Barbados
IO/CHEM	(32.1.H)	DP/BAR/75/004	Natural gas technology
IO/T/CHEM/PH	J13422	SI/BAR/83/801	Quality control expert

2. The approved and/or operational projects

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	Project Title
DU/BAR/82/002	IO/T/AGRO	J13102	Export promotion
UC/BAR/86/034	IO/IIS/FEAS	J12516	Techno-economic feasibility study on fish processing (see also US/GLO/81/120)
SI/BAR/86/839	IO/T/CHEM	J13425	Control of fly ash from sugar industry in Barbados

6

THE NETHERLANDS ANTILLES

6.1. THE ECONOMY OF THE NETHERLANDS ANTILLES

6.1.1 Recent economic trends

The economy of the Netherlands Antilles[1/] faces considerable economic problems arising from the decline of a number of major sources of income, namely, oil refining, tourism, trans-shipment facilities and financial services. During 1981-85, real GDP (including Aruba) declined by 1.6 per cent a year, while output in 1985 was 4.8 per cent lower than in 1979. Aruba has been awarded autonomous status since January 1986 and eventual independence in 1996. It implies looser economic, political and monetary co-operation between Aruba and five other islands - Bonaire and Curacao (islands lying off the northwestern coast of Venezuela) and a northern Leeward Islands group comprised of St. Maarten, St. Eustatius and Saba.

Economic growth in 1980 and 1981 for the federation as a whole registered 7 and 5 per cent of GDP respectively; but since then there has been some decline, as invisible earnings have fallen to the extent that they are no longer able to cover the visible trade deficit. Changes in taxation agreements with the USA have had a strong negative impact on the financial services sector. The major ship repairing industry on Curacao has also declined with the fall in international trade and amount of shipping tonnage. At the same time tourism, one of the other major planks of the islands' economies, has also fallen back in the southern group, where the Venezuelan market has been restrained by currency controls and other restrictions in the wake of the oil crisis. In contrast, the Windward islands have suffered much less, being oriented more towards the North American market.

The oil-refining industry, the island economies' mainstay for a long period, is in a state of deep recession. The EXXON refinery (the Lago refinery) on Aruba reached its peak production level in 1980, and declined rapidly thereafter. Under-utilization of capacity and financial losses resulted in eventual closure of the refinery in March 1985. Since negotiations with EXXON do not augur well for re-opening the Lago refinery, the government is entertaining a thought to dismantle the installation and to ask for US $250 million as compensation (for soil pollution) from EXXON. In consequence of the continued deterioration in market conditions Shell (the Curacao refinery) incurred heavy losses which prompted the company to announce its intention to pull out of refining in Curacao island. The government took over Shell's subsidiary companies at a symbolic price and saved the Curacao refinery through an agreement with Venezuela which agreed to lease the refinery for five years until 10 October 1990 and renewable every two years thereafter. The refinery is currently operating at half of its 320,000 b/d capacity.

In the wake of the crisis in oil refining and trans-shipment and the uncertainty in the financial sector, tourism is left as the major source of income. In 1985 the Netherlands Antilles earned US $328.1 million from tourism compared with US $319.3 million in 1984, while the number of visitors increased from 683,179 to 703,640 during the same period. In the early 1980s Venezueleans represented about half Curacao's stopover visitors and about one-third of Aruba's. Many of the current problems in the Antillean tourist

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1/ Comprised of Aruba, Bonaire, Curacao, St. Eustatius, Saba and St. Maarten.

sector are linked to the performance of the Venezuelan economy. Given its greater orientation to the US market, St. Maarten is largely unaffected. There was a 38,963 increase in the number of tourists visiting St. Marrten in 1985.

In anticipation of a 25 per cent reduction in the revenue sharing receipts from the islands, the budget for 1986 had an estimated deficit of NAf 53 million. The new Antillean government aims at balancing the budget by the year 1988, principally through a reduction in subsidies. To redress financial imbalances, the IMF recipe recommends a 5 per cent increase in the income tax surcharge, a 6.6 per cent solidarity levy on income tax, an increase in import duties, a rise in petrol tax, an increase in gambling licence fees, the lowering of subsidies, a cut in the number of civil servants, a salary reduction for civil servants, and a 30 per cent fall in living standards.

Official foreign debt grew at an average annual rate of 5.6 per cent between 1978-84 and amounted to US $192.8 million in September 1985. The ratio of official debt service payments to government revenues is estimated at around 8 per cent. Unemployment has recently been estimated at 35 per cent.

The overall balance-of-payments deficit worsened during 1983-84. However, in 1985 it registered a surplus of US $59.7 million, partly due to the inflow of foreign exchange brought by the Venezuelan oil company PDVSA. International reserves stood at US$79.9 million in 1985.

6.1.2 Economic structure

Table 6.1 shows the structure of GDP in the Netherlands Antilles (excluding Aruba). The Table reveals the dominance of oil refining, trans-shipment, tourism, banking and off-shore financial services. There is

Table 6.1 GDP by economic activity in the Netherlands Antilles, excluding Aruba, 1980-1985
(percentage)

	1980	1981	1982	1983	1984	1985
Agriculture and Fishing	0.7	0.8	0.8	0.8	0.8	0.7
Mining	0.6	0.4	0.4	0.4	0.5	0.4
Industry and Oil	17.6	15.6	16.0	14.8	14.0	13.2
Public Utilities	1.5	2.0	2.6	2.8	3.0	3.1
Construction	7.8	9.2	9.2	9.9	10.1	9.9
Trade	15.4	16.5	16.9	16.5	14.1	13.7
Hotels and Restaurants	4.9	4.8	4.5	4.5	4.5	4.6
Transport and Communications	18.0	15.7	13.1	11.7	12.2	12.0
Finance and Real Estate	12.6	14.5	14.0	14.7	15.0	15.6
Personal Services	6.4	5.9	5.9	6.1	6.3	6.5
Government Services	17.1	17.7	19.8	21.1	22.9	23.5
Imputed Bank Charges (-)	2.6	3.2	3.2	3.3	3.4	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Bureau of Statistics.

very little agricultural activity, which contributes hardly 1 per cent to GDP. During the first half of the 1980s the share of industry and oil in GDP declined consecutively, excepting in 1982, and that of construction and several tourism-related activities increased. A sharp decline in the share of transport and communications from 18 per cent in 1980 to 12 per cent in 1985 is a reflection of recent deterioration experienced by the oil refining industry which uses trans-shipment as the mode of transport for importing crude oil and exporting refined products.

Aruba and Curacao have been the main centres for the oil industry, both with major installations drawing on Venezuelan and Mexican sources of crude. Aruba had a 440,000 b/d oil refinery, which was closed down in March 1985; Curacao has had the capacity of its refinery reduced under a modernization programme from 360,000 to 190,000 b/d. Since the USA has no longer imported such large quantities from Middle Eastern and African suppliers and oil output from Venezuela and Mexico has been restricted, the trans-shipment facilities of 300,000 and 1,000,000 b/d respectively have also been substantially underutilized .

In consequence of the sharp reductions in refining output in Aruba, its share of GDP fell from 23.6 per cent in 1979 to 16.8 per cent in 1984, and that of transport and communications decreased from 6.4 per cent to 2.9 per cent during the same period. Since the large refinery has already run out of steam, these two sectors must have suffered marked declines in their respective shares of GDP after March 1985.

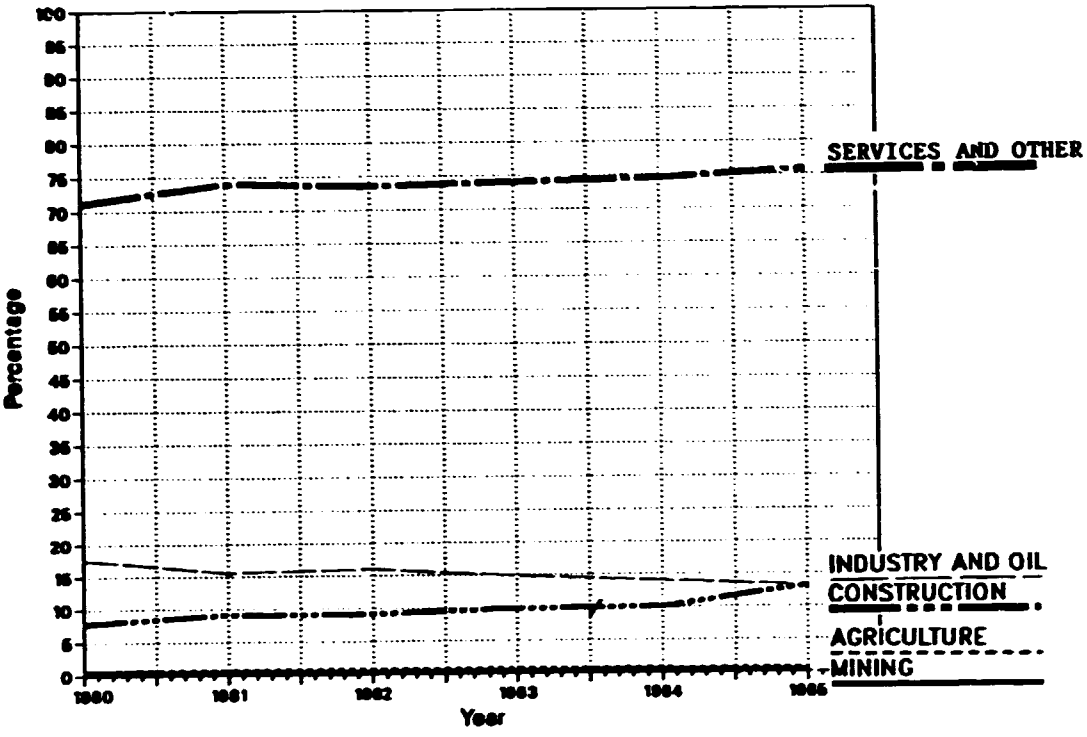
Large trans-shipment facilities have also been constructed in the excellent deep water harbours of Curacao and Aruba, which are capable of taking very large and ultra large crude carriers; Bullenbaai on Curacao has storage capacity for over 17 million barrels, while that on Aruba could hold over 14 million barrels. Smaller facilities at Bonaire have a capacity of 10 million barrels and St. Eustatius 2 million barrels. Bullenbaai and Bonaire have recently been upgraded to take the very heavy Orinoco crude produced by Venezuela. These trans-shipment facilities provide break of bulk facilities for those very large and ultra large carriers bringing oil from the Middle East, since there are few large natural harbours in North America capable of taking these great vessels and US East Coast oil importing ports have imposed a limit on carrier size of 60,000 tonnes. The established facilities for trans-shipment remain under-utilized in the face of the depressed oil market.

Tourism is concentrated mainly on Bonaire, St. Maarten and Curacao serving North American markets and Venezuelan markets respectively. However, Aruba also attracts considerable numbers of visitors (39,000 in 1983) mainly serving the USA market, while Bonaire has become increasingly popular of late, achieving 28,000 visitors in 1983. In addition there were almost 220,000 cruise ship passenger landings in 1983, although this represented a decrease over earlier years.

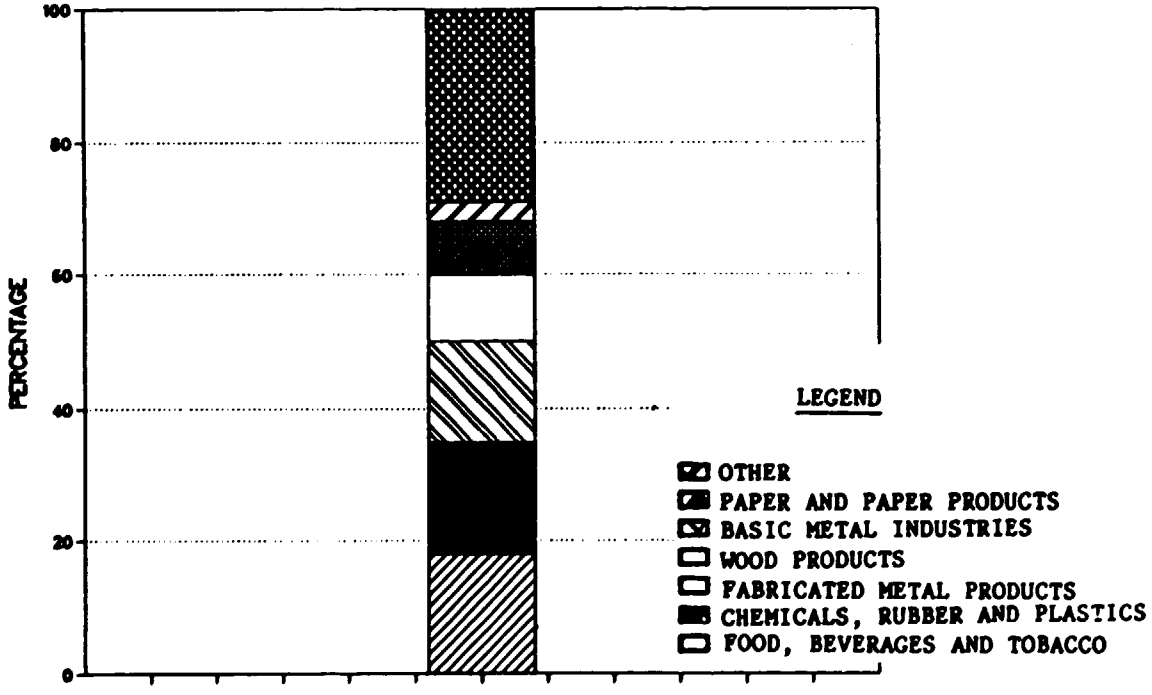
The financial services sector has developed out of the status of the Netherlands Antilles as a tax haven. Curacao in particular has become the leading offshore centre in the Caribbean in respect of the volume of inter-company flows and property investment. A substantial number of offshore investment holding, royalty, copyright and patent holding companies have also been set up in the Antilles. Offshore services take advantage of double taxation arrangements with the USA, the UK and the Netherlands, and this sector has become a major contributor of tax revenues. The tax system has

MANUFACTURING TRENDS

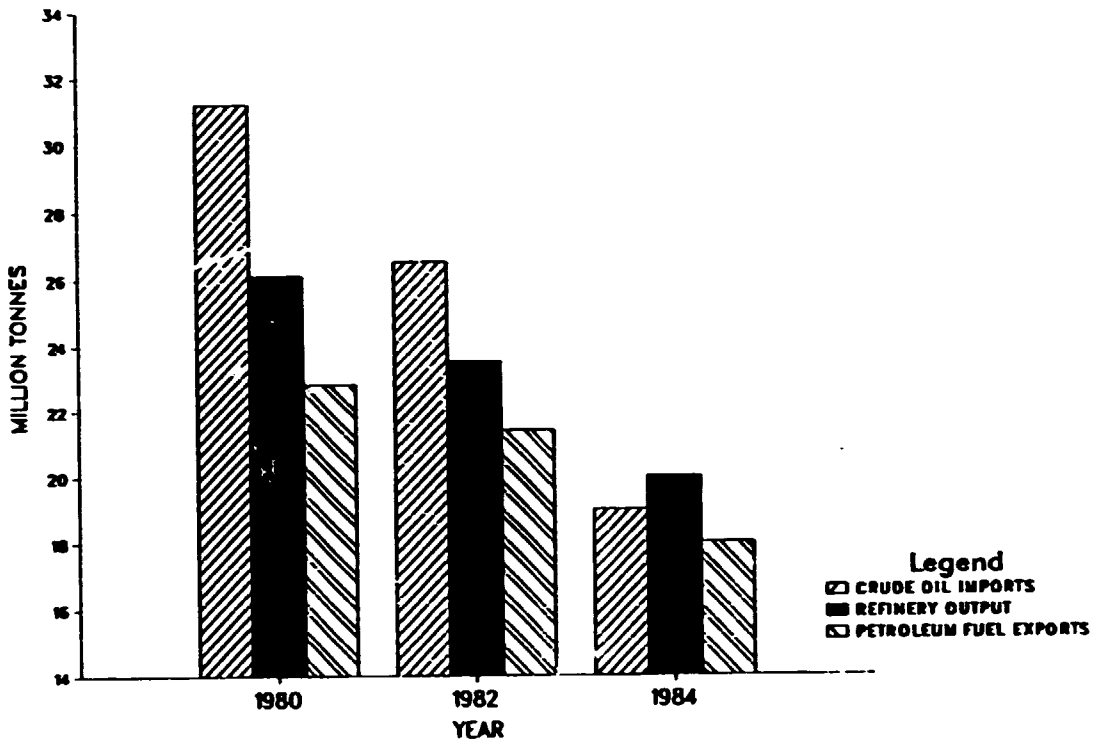
DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1980-1985 (excluding Aruba)



STRUCTURE OF MANUFACTURING EMPLOYMENT, 1986 (PERCENTAGE)

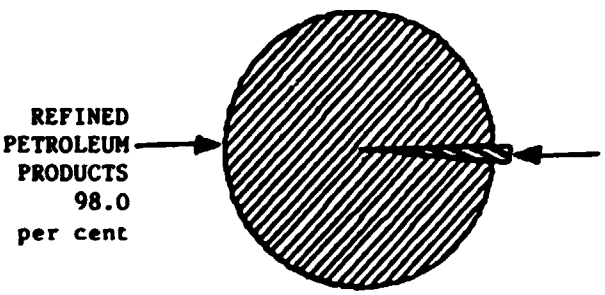


PETROLEUM SECTOR PERFORMANCE INDICATORS, 1980, 1982 AND 1984

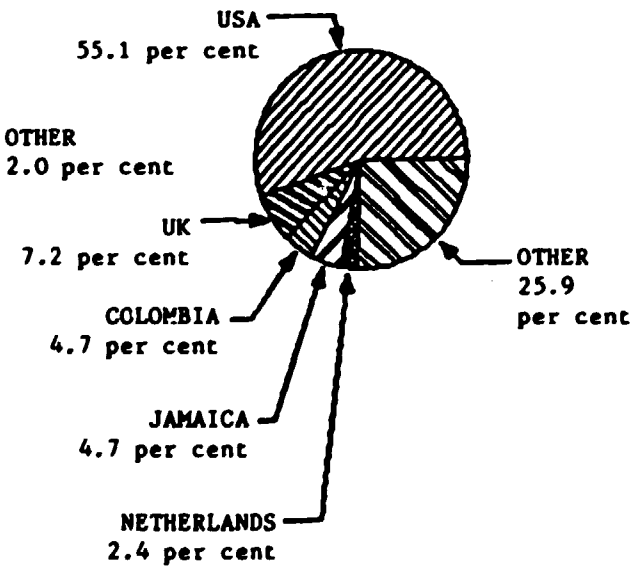


EXPORTS

SHARE OF REFINED PETROLEUM PRODUCTS IN TOTAL EXPORTS, 1984



DESTINATION OF EXPORTS, 1984



favoured the growth of offshore business by not levying withholding taxes on interest, dividends and royalties, thus effectively reducing the tax bills on income earned outside the islands for those companies registered there, relative to the USA for example. However, renegotitation of the tax treaty with the USA threatens the future of this sector, which up until now has made the Netherlands Antilles the leading tax haven for the USA and the tenth largest foreign investor in the USA.

6.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

6.2.1 Overview of the manufacturing sector

The principal industrial activity still is oil refining. Around 70 per cent of the manufacturing value added originates in oil refining and the remaining 30 per cent is attributable to a ship repairing centre and other manufacturing activities.

Most manufacturing in the Netherlands Antilles consists of assembly type operations utilizing imported components and inputs. Aruba, for example has industrial enterprises producing paints and varnishes, chemicals and pharmaceuticals, engineering products including motor vehicle parts, cigarettes, and furniture. There are few local raw materials, but encouragement has been given to import substitution industries. Current production includes paper products, food processing and packaging, jewellery, soap and beer. Given the difficulties with other major income earning sectors, the priority for future industrial development appears to be to achieve diversification into light, export-oriented industries.

The island of Curacao possesses the largest commercial dry dock in the western hemisphere, and this forms the core of a ship repairing industry established on joint venture basis in 1982. A related maritime industry is shipbreaking, which was established only in 1985; the potential market for ship-breaking is thought to be between one and two million tons per annum in the Caribbean. This facility offers the opportunity of establishing ancillary activities and generating significant additional employment.

6.2.2 Growth, structural change and performance

Ever since the establishment of an oil refinery on Curacao in 1917, the eocnomy of the Netherlands Antilles, and especially the islands of Curacao and Aruba, has been dominated by the refining of crude oil. Refining capacity had been enlarged and modernized during the oil boom years of the 1970s. However with the fall in oil prices in recent years capacity utilization levels had fallen to less than 50 per cent, so that the refinery on Aruba had to be closed down, while that of Curacao has been the subject of a rescue involving the rationalization of the refinery and terminals, and their leasing to the National Oil Company of Venezuela for 5 years.

Table 6.2 depicts the marked deterioration of the petroleum industry during 1980-84. Refining output declined at an annual average rate of 6.5 per cent, while petroleum fuel exports fell by 5.7 per cent per annum during the period. Crude oil imports fell from 31.2 million tonnes in 1980 to 23.7 million tonnes in 1984, while petroleum fuel import registered a 3 per cent annual increase during the same period.

While the Lago refinery on Aruba has been closed down, only 85 per cent of the former Shell employees at the Curacao refinery are retained by the new management. Average renumeration to workers has been reduced by 14 per cent. In 1984 Shell incurred a loss of US $74.9 million which was worse than EXXON's loss to the tune of US $55 million. The future of the Curacao refinery depends on whether Venezuela will continue to find it economical to refine some of its crude oil there.

Table 6.2 Petroleum statistics, 1980-84
(million tonnes)

	1980	1981	1982	1983	1984
Crude oil imports	31.2	27.0	26.5	23.7	19.0
Petroleum fuel imports	2.0	2.3	2.3	2.3	2.2
Refinery output	26.1	24.1	23.5	22.2	20.0
Petroleum fuel exports	22.8	21.4	21.4	20.1	18.0

Source: Lloyds Bank, The Netherland Antilles: Economic Report, 1986.

Other manufacturing activities vary across the islands. There are around 2,000 workers employed in 82 companies in Curacao producing a wide range of commodities. Food, beverages and tobacco employ 18 per cent of the total manufacturing employment in Curacao, followed by chemicals, rubber and plastic products (17 per cent), fabricated metal products, machinery and equipment (15 per cent), wood products (10 per cent), basic metal industries (8 per cent), paper and paper products (3 per cent), and other manufacturing (2 per cent). The Department of Economic Affairs has identified 24 companies on Curacao as having export possibilities, of which eight are already exporting.

A few industrial units are engaged in the production of handicraft articles for tourists. In Bonaire, the three manufacturing companies are engaged in the production of salt, clothing and polished rice, respectively. While the salt company exports all its products, the other two companies hope to export as well as serve the Antillean market. Two companies on St Maarten freeze and store fish and assemble electric equipment. The electronic assembly operations are export-oriented. While the protected manufacturing enterprises seem to require temporary interim assistance in the event of phasing out tariff barriers, the high-tech products assembled in industrial parks need a realistic marketing strategy.

There are 27 manufacturing companies engaged in the production of import-substituting and export products on Aruba. The 24 companies affliated to the Aruba Manufacturers and Industry Association (ARMIA) employ 376 persons. Around 45 employees are in three other manufacturing enterprises. Of the 27 manufacturing firms, 13 industrial units are producing food beverages and tobacco (7 are bakeries).

The import-substituting industries do not seem to enjoy above average profit. However, most of them could compete against imported products as long as the price of imported products include freight, insurance and revenue

tariff. The phasing out of protective barriers does not seem to make them loss-makers. Low-priced smuggled articles from Venezuela loom a potential threat to the survival of these industries in Aruba.

6.2.3 Manufacturing problems and prospects

The constraints that continue to impede the expansion of the manufacturing sector in the Netherlands Antilles are few natural resources, high wage rates, outward migration of technically qualified personnel, inward-looking private sector, high utility cost structure, high handling costs at ports, small domestic market and unfair competition resulting from dumping and smuggling of cheap products.

Although the decision by the Venezuelan oil company PDVSA to lease the Curacao refinery for a period of five years has prevented the loss of as many as 4,000 jobs, prospects for the oil-refining industry are still bleak. If oil prices stabilize at US $18 per barrel in the next few years, it would create a budgetary gap of around NAf 250 million for the country (excluding Aruba). Modernization of the Curacao refinery is essential to produce higher grade products and to offset the high wage cost. The plant also needs considerable conversion work done on it. If the current lease period is not extended by Venezuela, the Netherlands Antilles will have only a breathing space to diversify its industrial structure.

In view of its general lack of natural resources, new industries in the Netherlands Antilles are to be of a special nature, such as processing of partly-finished manufactured goods, assembling factories, processing of agricultural produce, etc. These products have to be selective to seize the opportunities stemming from the CBI and the EEC-Lomé agreement.

For Curacao, the opportunities are perhaps more varied, since there is already a more diversified industrial infrastructure in place. Opportunities therefore exist for development of forward and backward linkages, as well as for the growth of small/medium enterprises and service industries related to its function as focus of the group of five islands remaining in the federation. It is unlikely, however, that Curacao will be able to project so competitive an image in terms of overseas industrial promotion as Aruba. For the smaller islands the need to diversify their economies remains, but the scale of opportunities is much more limited.

Already the greater autonomy achieved by Aruba has been reflected in a series of development planning studies designed to explore the opportunities for development of export-oriented industries. The key to progress in the medium term, however, is the development of institutional arrangements designed to promote Aruba as a location for offshore industries, to which it is well suited with its established infrastructure and trained workforce.

The fundamental development issue facing both the Netherlands Antilles and Aruba is the same - that of achieving diversification of their economies away from such a large degree of dependence on oil and tourism. In the case of Aruba, this is perhaps the more urgent, taking into account the recent closure of the Lago refinery which caused a loss of almost 40 per cent of Aruba's GNP and high rate of unemployment. The secession of Aruba from the federation and the gradual move towards full independence have also changed the prospects for development, creating the opportunity for a more distinctive and perhaps more aggressive approach to industrial promotion.

6.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

6.3.1 Policies and institutions

Industrial policy in The Netherlands Antilles is aimed at protecting the import-substituting industries through temporary or permanent increases in the import duties on competing imports under the pretext of infant industry argument. However, protective measures vary across the islands. In Curacao and Bonaire, protection may be extended to 25 years if the products of a protected industry constitute an input for another enterprise established in the Netherlands Antilles. In Aruba some of the import-substituting industries are protected under import barriers. As against the excessive protection granted to import-substituting industries in Curacao, Bonaire and Aruba, a free trade atmosphere has been developed in St Maarten. But its manufacturing implications are very much limited as the island's economy is dominated by tourism. The Free Zone located on Curacao is available only for the storage, packaging, assembling and exhibition of goods. The Free Zone and industrial parks are fully maintained by CURINDE, a wholly owned corporation of the island government, with a supervisory board consisting of a private sector majority. Manufacturing is encouraged in the Industrial Park.

In Aruba, the Aruba Manufacturers and Industry Association plays a significant role in promoting industrialization. As mentioned earlier, it represents 24 out of 27 companies engaged in the production of a wide range of manufactured goods.

The Netherlands Antilles seeks external participation in the industrialization process. Under the Industries and Hotels Encouragement Act, new enterprises are granted tax holidays of up to 10 or 11 years. These concessions are subject to new firms meeting certain criteria, such as minimum number of jobs and minimum level of investment. In some cases new firms may be granted a monopoly in the local market.

The major economic planning issues confronting the Netherlands Antilles are in the shorter term how to fill the gaps in the economy caused by the recent crisis in oil refining, and in the longer term how to achieve more substantial diversification of the economy. Any significant expansion of tourism requires much investment and faces stiff competition from other Caribbean island states. Industrial development would appear to offer the prospect of a more stable and lasting development strategy and therefore has been given high priority. The US Caribbean Basin Initiative may well be of direct benefit to the Netherlands Antilles, which is perhaps better placed than some Caribbean states with its established industrial tradition and trained labour force.

A number of new projects have been started including electronics, building materials, pharmaceuticals and shipbreaking/repair. Continuing public sector investment in improving the infrastructure has been designed to facilitate this process.

6.3.2 Resources for industrial development

Human resources

In 1986, the total labour force in the Netherlands Antilles (excluding Aruba) stood at 70,000 persons. Net additions to the labour force (assuming

no net migration) is estimated at 76,500 for the year 1995. If the rate of unemployment could be reduced from the current level of 35 per cent to 15 per cent by 1995 the number of new jobs to be created would be around 13,600.

As part of austerity measures, the government has already envisaged a reduction in employment. The number of new jobs to be created in private manufacturing companies would have to be larger if overall unemployment could be kept to 15 per cent. The labour force in the Netherlands Antilles is well trained and organized. Although the high wage structure was reduced to some extent during the recent oil-induced recession period, the prevailing wage levels constrain manufacturing activities.

Agricultural resources

Of the total area only 8 per cent is used for farming due to acute shortage of water. In 1984 there were 9,000 head of cattle, 8,000 sheep, 23,000 goats and 8,000 pigs. Wood production is inadequate to meet domestic demand.

Mineral resources

Curacao does have phosphate desposits which are being exploited to the extent of 100,000 tonnes per annum, and calcicum phosphate is utilized as crushed limestone for construction, in cattle feed, in the oil industry and as a fertilizer. Bonaire and St. Maarten both have solar salt plants producing about 300,000 tonnes per annum for export.

Energy

Electricity consumption per head was the thirteenth highest in the world, reflecting the substantial use of electricity by the oil and ship-repairing industries. The installed generating capacity stood at 330 MW in 1981, while production of electricity increased from 1,650 gwn in 1977 to 2,275 gwn in 1981.

Finance

In 1981 a development bank was established and the following year Aruba established its own bank. These development agencies are mandated to initiate projects and allow commercial banks to take over the funding once profitability is attained.

6.3.3 The role of technical co-operation in industrial development

In the face of difficulties experienced by the major sources of income, development objectives are focused on the generation of foreign exchange to improve balance of payments, creation of employment opportunities and on diversification of the economy. In support of these objectives, technical co-operation projects destined for industrial development could encompass priority areas, such as advisory services to the oil sector for redeployment of skills, identification of high-technology industries, development of arts and crafts industries, technical vocational training and training in equipment maintenance, development of small-scale manufacturing industries, and assistance in fish processing.

Of the total US $1,390,000 available for technical co-operation projects during the 1987-91 UNDP Country Programme, US $200,000 (14 per cent) has been earmarked for revamping technical assistance inputs to the manufacturing sector. Technical co-operation projects could also aim at identifying industrial investment opportunities and in drafting investment incentives to stimulate industrial development.

APPENDIX 6.A

THE COMPLETED TECHNICAL CO-OPERATION PROJECTS
OF UNIDO

THE NETHERLANDS ANTILLES

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/INFR	(31.3.F)	VC/NAN/76/071	Establishment of an Antillean Development Bank
IO/FEAS	(32.3.00)	TF/NAN/73/001	Industrial development and export promotion expert
IO/FEAS	(32.3.00)	TS/NAN/73/001	Exploratory mission to examine the possibilities for establishment of cement industry
IO/FEAS	(31.6.B)	DP/NAN/73/001	Industrial development and export promotion
IO/FEAS	(31.6.B)	TF/NAN/77/001	Industrial development and export promotion
IO/IIS/FEAS	J12500	DP/NAN/81/003	Industrial development and export promotion
IO/CHEM	(30.3.02)	DP/NAN/71/510	Pilot plant for ceramic materials
IO/CHEM	(30.3.02)	IS/NAN/71/510	Pilot plant for ceramic materials
IO/T/CHEM	J13419	DP/NAN/83/001	Ceramic tile manufacturing

7

THE BAHAMAS

7.1. THE ECONOMY OF THE BAHAMAS

7.1.1 Recent economic trends

The economy of the Bahamas has performed quite well in recent years, largely because of the continued growth of the tourism and construction sector. While several countries in the Caribbean region experienced negative growth rates in recent years, real GDP in the Bahamas grew at 7.5 per cent in 1982, 3.2 per cent in 1983, 6.4 per cent in 1984 and at 3.0 per cent in 1985. Aided by better performance of the tourism and construction sectors, real GDP grew by 4.5 per cent in 1986. Growth in foreign exchange earnings has averaged 3 per cent per annum, resulting in an improvement in the balance of payments with a current account surplus equivalent to 1.4 per cent of GDP and with small but consistent net additions to the foreign exchange reserves. Continued growth in tourist arrivals has also resulted in high investment in the construction of new facilities.

Since 1982 the financial position of the public sector has improved; this resulted from modest growth in current expenditures, reduced capital expenditure (following completion of several major hotel construction projects), improvement in the performance of several public sector corporations, and bouyant tax revenues, particularly from duties on imports for the tourist sector.

As a result of improved financial performance, particularly of public corporations, international reserves increased from US $100.2 million in 1981 to US $191.2 million in 1985. Total external debt declined from US $230.3 million in 1982 to US $208.6 million 1984, against an increase in external debt in the early 1980s. Debt servicing remains within manageable limits at less than 10 per cent of export earnings.

During 1980-84 employment has increased at an average annual rate of 4 per cent. However, substantial progress has not been achieved in reducing overall unemployment which is estimated at over 20 per cent. A 3.2 per cent increase in population growth is a matter of deep concern for the government, reflecting the need for creating employment opportunities for the growing population.

The major emphasis of the 1986 budget was further development of economic infrastructure and the maintenance of high levels of activity in the tourism sector to sustain further growth in employment opportunities.

Prospects for sustained economic growth in the Bahamas depend on a strong US economy and adoption of a more balanced and diversified growth strategy.

7.1.2 Economic structure

The country's population was estimated at 225,000 in 1985, with 16 inhabitants per sq.km. The annual average population growth rate in the 1970s was around 1.3 per cent. In recent years the growth rate is estimated at over 3 per cent, largely due to high rates of immigration from Haiti.

The tourism sector accounts for about one-third of GDP and directly or indirectly for one half of employment. The initial period of expansion occurred in the 1960s with substantial foreign investment. However, following independence in 1973 the government followed a policy of Bahamanization

which may well have created some uncertainties amongst foreign investors for the remainder of the decade. The onset of world wide economic recession and the oil price shocks served to hinder the return to growth. In the second half of the 1970s strong growth in tourism from the USA and renewed growth in construction for the tourist and domestic sectors brought rapid economic recovery which only slowed in 1981 under the impact of renewed recession in the USA. Since 1981 there has been a further major increase in the number of both stopover and cruise visitors, although the average length of stay has fallen slightly. A corresponding increase in hotel capacity contributed to a small fall in occupancy rates, and the profitability of the Bahamian hotel industry has not compared favourably of late with worldwide standards.

Table 7.1 shows that the agricultural sector in the Bahamas accounts for less than 5 per cent of GDP, since only about 10 per cent of the cultivable land is presently so utilized. While the majority of economic activity is concentrated in Nassau, the capital, many of the outer islands have economies based on traditional agriculture and fishing. Nevertheless agricultural development is being encouraged to help reduce import dependence and to increase linkages with the tourism sector. The prevailing constraints include the scarcity and high cost of labour, the need for mechanization and expatriate technical support, poorly organized domestic marketing arrangements, and uncertainties regarding foreign investment. There is also considerable potential for the expansion of fishing and placing the present rather limited activities on a more organized basis.

Table 7.1 Distribution of GDP by sector of origin, 1980-85 (selected years)
(percentage)

	1980	1983	1985
Agriculture	4.4	4.3	4.4
Manufacturing	10.8	11.1	10.6
Construction	3.0	2.8	3.0
Wholesale and retail trade	27.0	26.2	26.2
Financial service	11.6	12.2	12.2
Government services	17.8	17.0	17.1
Transport and communications	10.7	10.9	10.9
Other	14.7	15.5	15.6

Source: Inter-American Development Bank.

In recent years the Bahamas has emerged as an off-shore financial centre; banking and finance has become one of the important economic sectors. By the end of 1984, 363 banks and trust companies were licensed. The direct benefits include not only substantial employment, largely for highly trained Bahamians, but it has also encouraged the development of ancillary services of accounting, law, communications and computing, which facilitate other commercial activity. The Bahamas has become the third largest flag of convenience for shipping in the world, and off-shore insurance and reinsurance has also been promoted successfully.

The manufacturing sector in the Bahamas contributed around 10 per cent of GDP in 1985. After a marginal increase in its share of GDP in 1983, it declined slightly in 1985. The sector employs approximately 6 per cent of the country's labour force. Since 1983 the recovery of the manufacturing sector has been slow and the prospects are uncertain.

In an attempt to create greater flexibility in the fiscal system, the government has been seeking to enhance the tax base without affecting the tax haven status and image of the country. At present the tax structure is inelastic because of a heavy reliance on often high external tariffs as a source of revenue. In recent years there has been a steady decline in capital formation in the public sector. Present levels of capital formation in social and economic infrastructure are not sufficient and do not reflect the development needs of the outer islands or more demanding expectations associated with higher incomes. Part of the problem has been that the administrative system for determining capital priorities and allocating resources to meet them is inadequate; there is a need for a more effective system of spatial and economic planning, and for an improved system of co-ordination, budgetting, planning and programming of capital expenditures.

While recent economic performance has been good, the open nature of the economy and its heavy dependence on tourism have resulted in a susceptability to external events which itself imparts a certain volatility to the economy. The government's priority has been to diversify the economic base. Government efforts are to be focused on four identified needs; the first being to ensure the cost competitiveness of the leading sectors; second, attention needs to be focused on achieving a more even regional distribution of future growth, and particularly through the development of infrastructure on the 'outer' islands to help reduce internal migration to New Providence and Grand Bahama; third, encouraging job creation particularly for younger members of the work force remains a major priority; fourth, the increasing sophistication of the economy demands rising capabilities in the public sector, especially concerning foreign investment.

7.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

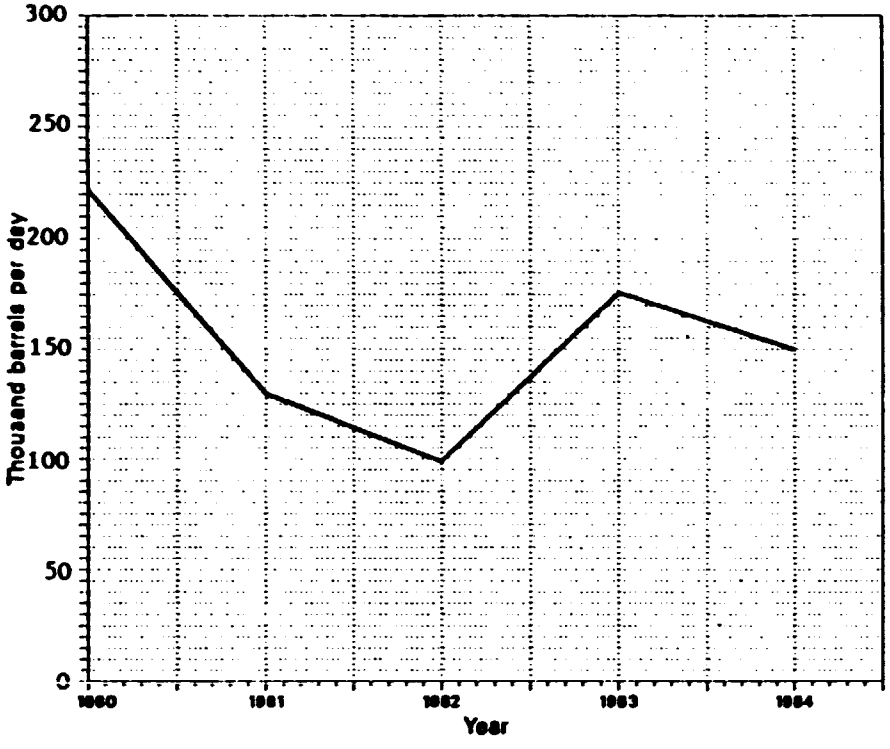
7.2.1 Overview of the manufacturing sector

Established large-scale enterprises are mainly of the enclave type and are foreign owned; they are concentrated on Grand Bahama in the free trade zone established in 1955. Steel pipe, cement, rum and salt production are also of some significance, and light industries include bottling plants, food processing, and small boat building. In the small-scale sector, processing of local agricultural products to produce canned or processed fruits and vegetables, hot sauces etc. predominate along with handicrafts, jewellery, and leather goods. The 500,000 b/d oil refinery has operated below capacity for some time and finally ceased operations in 1985; the associated oil trans-shipment facilities, which have a capacity of 410,000 b/d, have also suffered falling throughput as the US imports of crude oil have declined.

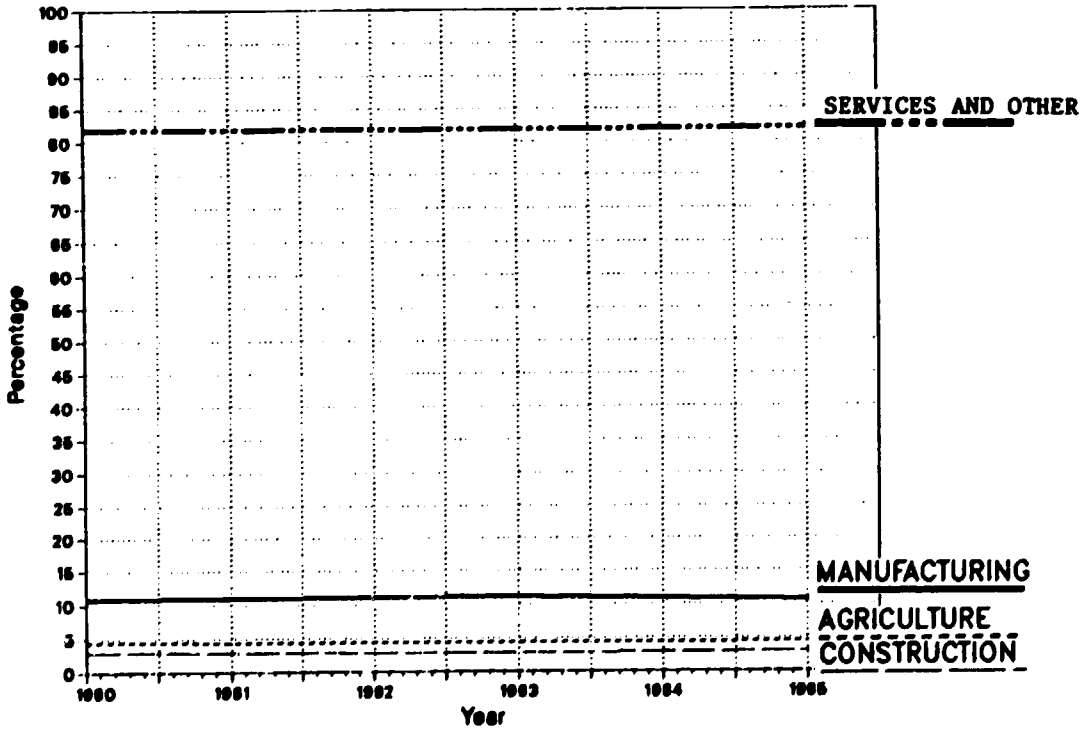
The performance of the manufacturing sector tends to be strongly influenced by external demand and recently increased promotional activities have been targetted on potential investors in the USA, although the success of the policy to attract labour intensives industries to the free zone on New Providence appears to be threatened by scarcity of skilled labour and high labour costs in comparison to other competitive locations in the Caribbean.

MANUFACTURING TRENDS

EXPORT VOLUME OF REFINED PETROLEUM PRODUCTS, 1980-1984
(In thousand barrels per day)

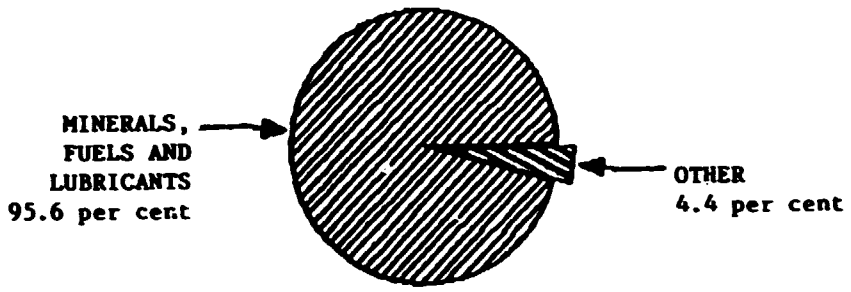


DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1980-1985

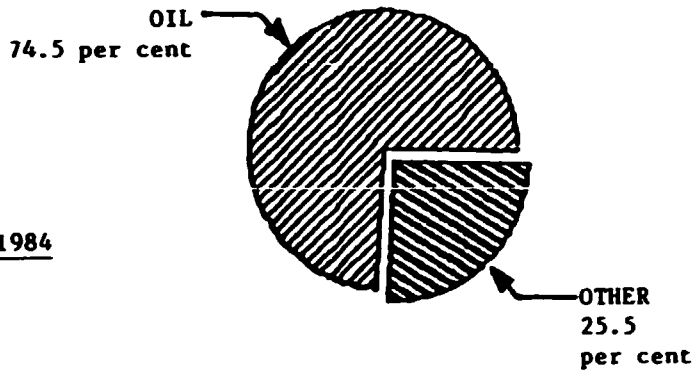


EXPORTS AND IMPORTS

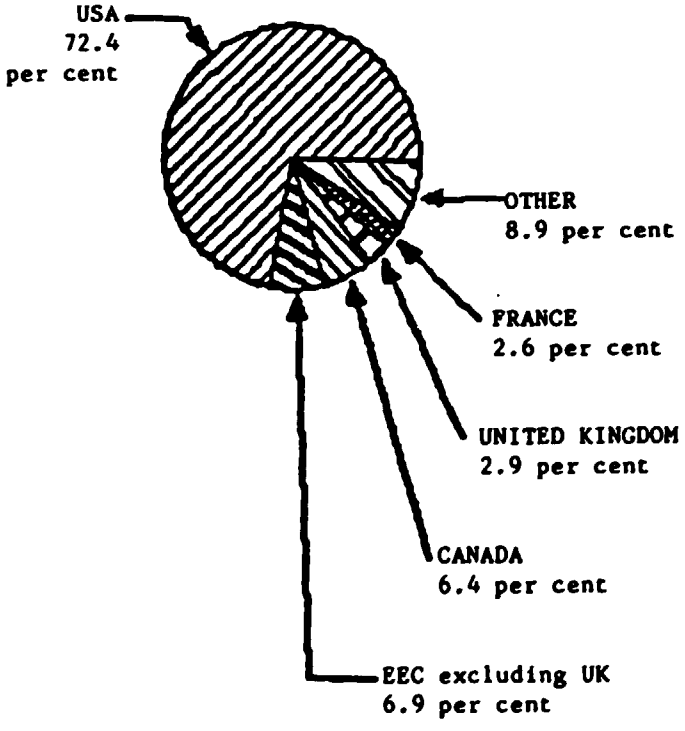
SHARE OF MINERALS, FUELS AND LUBRICANTS IN TOTAL EXPORTS, 1985



SHARE OF OIL IN TOTAL IMPORTS, 1985



DESTINATION OF EXPORTS, 1984



The close proximity of The Bahamas to the USA, its position in relation to established shipping routes, interchangeable currencies and the potential access to the USA market through the CBI argue strongly for the industrial potential of the Bahamas in the long term. There is some scope for limited import-substitution activities, but the small size of the domestic market inhibits the realization of economies of scale in many manufacturing processes. However, the ability to exploit this potential depends in part on the extent to which administrative support facilitates this sector's progress and in part on the raising of local technical skills and the supply of supporting industrial services.

7.2.2 Growth, structural change and performance

Growth in the manufacturing sector is taking place mainly in Freeport, Grand Bahama which has the necessary infrastructural facilities to support an expanding industrial sector. The limited size of the local market shortage of skilled labour and high labour costs are the main constraints impeding industrial expansion. As a result of these constraints the country has not been able to develop its manufacturing sector as the government would wish.

Table 7.2 presents data pertaining to manufactured exports during 1980-84. The performance of the manufacturing sector is determined by external demand. In the early 1980s the depressed external demand resulted in the closure of steel and cement plants. The oil refinery also experienced considerable difficulty and by 1985 refining units ran out of steam, leaving only a trans-shipment and bunkering facility.

Since 1983 the Bahamas has suffered a series of heavy losses in consequence of falling US demand for oil, leading to the sale of its trans-shipment terminal on Grand Bahama to South Riding Point Terminal Holding.

Table 7.2 Exports of selected manufactured goods, 1980-84
(million BS$)

	1980	1981	1982	1983	1984
Chemical products	49	50	67	84	101
Alcoholic beverages	19	14	16	13	18
Cement	14	2	2	...	...
Salt	4	6	8	8	9
Steel products	4	...	...	...	...
Output of refined products ('000 b/d)	222	130	99	176	150

Source: World Bank, The Commonwealth of The Bahamas: Economic Report, March 24, 1986, Report No. 6027-BM.

The Barcardi Rum Co., which completed a US$5 million expansion programme of its Nassau distillery in early 1986, sells more than 12 million litres of rum a year, of which 90 per cent is destined to North America and Europe.

The Freeport heavy industry area has attracted a US $12 million factory to manufacture hi-tech batteries using the lead and plastic constituents from spent batteries (from the US) for smelting and refining them into battery grids and lead oxide. Sales of lead acid cells are estimated at 206,000 units in the first year of its operation.

With the possible exception of some agro-processing activities, most of the industries are capital intensive. Progress in expanding manufacturing activities in pursuit of lessening the country's dependence on tourism is rather slow.

7.2.3 Manufacturing problems and prospects

Despite the country's established shipping routes and its proximity and access to the US which offers a preferential treatment to Bahamas particularly under the CBI, the potential for further industrial expansion remains constrained by the small domestic market, lack of trained labour and high wage rates. New firms established in the new Free Zone in New Providence have already encountered difficulty in acquiring the necessary inputs at competitive prices. These constraints inhibit the realization of economies of scale for most manufacturing operations. With the exception of agro-processing activities, the scope for import substitution does not seem to be promising in other industrial activities. The current situation warrants the government to endeavour to raise the technical skills capability of the potential workforce and concentrate its promotion efforts on export-oriented higher technology type operations.

7.3. POLICIES, AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

7.3.1 Policies and institutions

Successive administrations have sought to expand the Bahamas' industrial capacity and output. In 1955 the initial legislation provided for the development of new industries in a free trade zone on Grand Bahama under the auspices of the Port Authority. More recently a series of acts have provided for the duty free import of raw materials and capital inputs, and a variety of tax exemptions. A new free zone has recently been established in New Providence and new institutional arrangements have been made including the establishment of the Bahamas Agricultural and Industrial Corporation (BAIC) in 1981 to undertake promotion activities. Several large scale enterprises in the oil refining, petrochemical and pharmaceutical subsectors have been attracted to Grand Bahama, although there has been very little linkage with other sectors of the economy. Some agro-industries have also been established and more are envisaged for the outer islands, including the production of edible oils, the processing of cascarilla bark, of aloe vera, and of potatoes.

Government's endeavour to foster the process of industrialization and to spur investment in priority areas has been manifested in a variety of incentives offered to foreign investors. Existing legislations provide duty-free importation of raw materials and capital inputs and a variety of tax

exemptions. The BAIC provides advice and assistance on investment opportunities. The BAIC is also in the process of developing a variety of project profiles and an investment guide.

7.3.2 Resources for industrial development

Agricultural resources

Although large areas of available land are uncultivated or under-cultivated, the Bahamas imports approximately 85 per cent of its food requirements for the tourist and local population. The government is committed to reducing this volume of food imports by expanding local food production. Self-sufficiency has already been achieved in some crops such as tomatoes, cucumbers, peppers, limes and avocados and some exportable surpluses have been generated. Three of the northern islands, Andros, Grand Bahama, and Abasco, have been designated for large-scale export crop development, while the south-east islands will grow mainly key crops for local consumption, such as onions, potatoes, cassava, peas, maize, as well as raise livestock.

Considerable expansion potential exists for a variety of crops, but several impediments are inhibiting the fulfillment of this potential. Local labour is expensive and difficult to obtain. Recent efforts inititated by the government to encourage local agricultural production include providing farmers with a guaranteed minimum price for output.

Labour

An estimated 25 per cent of the country's labour force of about 108,000 is employed in the hotel and restaurant sector, and 10 per cent in financial and business activities. The recent development of the financial services sector has greatly strengthened the number of professional and skilled personnel active in this and related service sectors.

Despite these advances, the level of unemployment is quite high, exceeding 20 per cent. The educational infrastructure created in the Bahamas is being under-utilized. There has also been a steady decline in the student to teacher ratio, falling from 34 to 1 in 1976 to 21 to 1 in 1983. Development of labour-intensive agro-processing manufacturing activities is one of the major options left for the government to create employment opportunities for the country's growing labour force.

Energy

Bahamas has no indigenous energy resources; the overwhelming majority of energy needs are met by imported petroleum, some of which used to be refined on Grand Bahama. However since 1985 this facility has been reduced to a bunkering and trans-shipment centre.

Finance

Freedom from personal and corporate taxation, banking secrecy and exemption from exchange controls have made Bahamas a major off-shore banking centre. Financial activities provide earnings of approximately US $100 million per annum and employs about 2,000 Bahamians.

7.3.3 The role of technical co-operation in industrial development

Technical assistance has a major role to play in furthering industrial development of the Bahamas, particularly through the establishment of agro-industries on the outer islands and in upgrading local skills to cope with the requirements of hi-tech assembly projects. An initial step will be to facilitate the identification, monitoring and evaluation of agro-industrial projects with potential for employment generation and foreign exchange earnings. This is perhaps best done through strengthening of the Bahamas Agricultural and Industrial Corporation, the prime agency concerned, by training its personnel and thereby increasing the effectiveness of its promotional activities. In addition there is a need to exploit the captive market of two million tourist visitors each year through development of indigenous handicrafts.

the most pressing need is to diversify local production and to provide appropriate training to upgrade local skills. With proposed agro-industrial projects the priority is to assist with the techno-economic investigation of proposed projects and to help ensure their progress to implementation. Throughout the economy of the Bahamas there is a need for training local labour in management and supervisory skills at senior and middle levels in both private and public sectors. This need is most marked in the areas of planning, finance, management and administration of the public sector.

APPENDIX 7.A

Manufacturing projects assisted by the Commonwealth Secretariat, 1981-86

1. Canning of fruit and vegetable products
2. Cascarilla oil processing
3. Small-scale meat processing
4. Development of existing and potential enterprises

APPENDIX 7.B

THE COMPLETED TECHNICAL CO-OPERATION PROJECTS OF UNIDO

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/PLAN	(00.0)	IS/BHA/71/801	Assistance on industrial development strategy and industrial promotion
IO/PLAN	(32.1.00)	DP/BHA/72/008	Adviser on industrial projects
IO/PLAN	(32.1.00)	DP/BHA/72/011	Advice on industrial development strategy
IO/PLAN	(31.2.A)	DP/BHA/73/002	Industrial development and promotion
IO/AGRO	(30.3.04)	DP/BHA/74/001	Industrialization of Bahamian pine wood
IO/AGRO	(31.7.C)	UC/BHA/84/098	Technical advisory service in agro industry
IO/COOP	(32.2.04)	IS/BHA/75/001	Promotion of investment in navals stores plant
IPCT/II/PROM	G01202	BR/BHA/84/001	Training in investment promotion

8

BELIZE

8.1. THE ECONOMY OF BELIZE

8.1.1 Recent economic trends

Since 1980 the decline in sugar prices has adversely affected Belize's balance of payments and official reserves have sunk to very low levels. Public sector finances have deteriorated and major organizational/managerial bottlenecks have developed limiting the delivery of essential services. The decline in national income took the form of reduced real private consumption and private investment - the latter declined by 4 per cent between 1979 and 1983. While public sector investment fell 45 per cent over the same period, public consumption grew by 26 per cent. The balance of payments reflects the openness of the economy and is strongly influenced by the performance of the sugar sector, which accounts for over 50 per cent of domestic export earnings. In contrast to subdued economic growth (0.9 per cent) in 1981 and marked decline in real GDP (-5.7 per cent) in 1982, the economy of Belize has experienced positive, albeit mild, growth rates over the past few years, with GDP growing at 2.0 per cent, 0.7 per cent, 1.0 per cent and 1.0 per cent in 1983, 1984, 1985 and 1986 respectively.

During the first half of 1986 against a 5.5 per cent fall in sugar output, sugar receipts rose by 27 per cent. On the other hand, despite a 59 per cent rise in the volume of citrus (shipped), citrus revenues increased by only 2.6 per cent and garment could record only a 1.3 per cent increase in export earnings although shipments expanded by 28 per cent during the first half of 1986.

As a result of lower oil prices and sluggish domestic demand the value of retained imports (not re-exported) fell by 10.2 per cent in 1986. Low oil prices enabled Belize to save between US $7 million - US $10 million on its import bill in 1986. To the general trend of declining exports, including re-exports which fell by around 19 per cent in 1986, vegetable exports to the USA, exports of beef and honey recorded significant increases in 1986.

In September 1986 international reserves totalled US $24.9 million, representing a 95 per cent increase over the level of December 1985. Belize enjoyed a surplus of US $5 million on its current account balance in 1985. Recent trends on the external sector suggest that the balance of payments has been stabilized. Although control of the public sector deficit has not been sufficient, the IMF seems to be satisfied with the government's performance in complying with its conditionality pertaining to a stand-by agreement negotiated with the Fund in late 1984. The budget for 1986/87 set total spending at BZ$ 213.8 million after increasing current expenditure by 15.2 per cent and decreasing capital expenditure by 12.5 per cent.

Despite a slow economic recovery from the setbacks of the early 1980s, the rate of inflation has fallen from 6.8 per cent in 1982 to 3.7 per cent in 1985. Since the country is heavily dependent upon the export earnings of few commodities, the pace of economic expansion remains vulnerable particularly to the prices of major export commodities. The 1985-89 Five-Year Plan accords priority to private initiative, with considerable emphasis on economic diversification.

8.1.2 Economic structure

Belize is endowed with rich land resources and good tourist potential in its long barrier reef and ancient Mayan ruins. Agricultural development has so far been constrained by sparse population and other constraints. The main agricultural activity is the production of sugar, which accounts for 20 per cent of GDP. The service sector accounts for another 50 per cent, while construction accounts for 6 per cent.

Given the limited size of the domestic market, the main development opportunities are almost all export-oriented; this applies to all the major productive sectors - agriculture, livestock, fishing, agro-processing, industry and tourism. The agricultural sector is presently dominant in the Belizean economy and has the greatest long-term potential. Development policies for this sector have been sound with minimal intervention, good land tenure policies and full recognition of the role of the private sector in future growth. The variability of output levels for sugar, and therefore of export earnings, demands that the prime policy focus be on the diversification of export crops, for example in livestock and citrus production. There are also opportunities to substitute food imports and to develop linkages between agriculture and manufacturing through the processing of agricultural produce and raw materials.

The combination of a large, coral barrier reef, varied topography with a wide variety of interesting flora and fauna, and the heritage of Mayan ruins amount to significant tourist potential. The improvement of tourist infrastructure is the first step towards realizing this potential, however other essential developments include the establishment of appropriate devleopment agencies and institutions, improved access to key sites, and conservation measures in certain situations.

Table 8.1 shows the sectoral origin of GDP in 1984. Agriculture contributed 25 per cent of GDP in 1984. Although the country's economy is based mainly on agriculture, only 15 per cent of arable land area is currently under cultivation. Sugar remains the principal crop and the chief commodity export. Citrus and bananas are also produced for export. The manufacturing sector, concentrating mainly on the processing of agricultural produce, is basically export-oriented. It contributed 10 per cent of GDP in 1984. Around 42 per cent of the workforce is involved in agriculture, forestry and fisheries, while manufacturing employs no more than 10 per cent of the active population. With female participation in the labour force increasing, the total workforce has been expanding at an average annual rate of 3 per cent, leaving 14 per cent of the workforce unemployed. Despite a 3 per cent annual increase in the labour force, the rate of unemployment is being held down by continual emigration of workers to the US.

Belize's principal export item is sugar which accounted for around 37 per cent of export earnings in 1985, followed by garments (24.5 per cent), citrus products (21.7 per cent), fish products (10 per cent), and other (6 per cent). The major trading partner is the USA which takes around 50 per cent of Belizean exports and provides over 40 per cent of imports. Despite persistant trade deficit, the current account moved into surplus in 1985, largely due to increases in net invisible earnings and official transfers.

Table 8.1 Distribution of GDP by sector of origin, 1984
(percentage)

Sector	Per cent of total
Agriculture, fisheries and forestry	25
Manufacturing	10
Construction	8
Commerce	15
Public adminsitration	11
Other	31
Total	100

Source: Central Bank of Belize.

8.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

8.2.1 Overview of the manufacturing sector

The manufacturing sector in Belize is small, the major products being sugar, molasses, cigarettes, beer, batteries, wheat flour, fertilizer and garments. The two sugar mills are foreign-owned but the government is shortly to take a majority interest. There are also plants for processing of citrus, rice and maize; a meat packing plant and some small sawmills and woodworking enterprises. The majority of consumer and capital items are imported.

Of the two sugar mills, there is now only one sugar refinery functioning at Tower Hill near Orange Walk, though the Libertad factory is reportedly re-opening. Agreement seems to have been reached between the government and Belizean sugar interests with regard to the Jamaican company re-opening the Libertad factory for the production of ethanol.

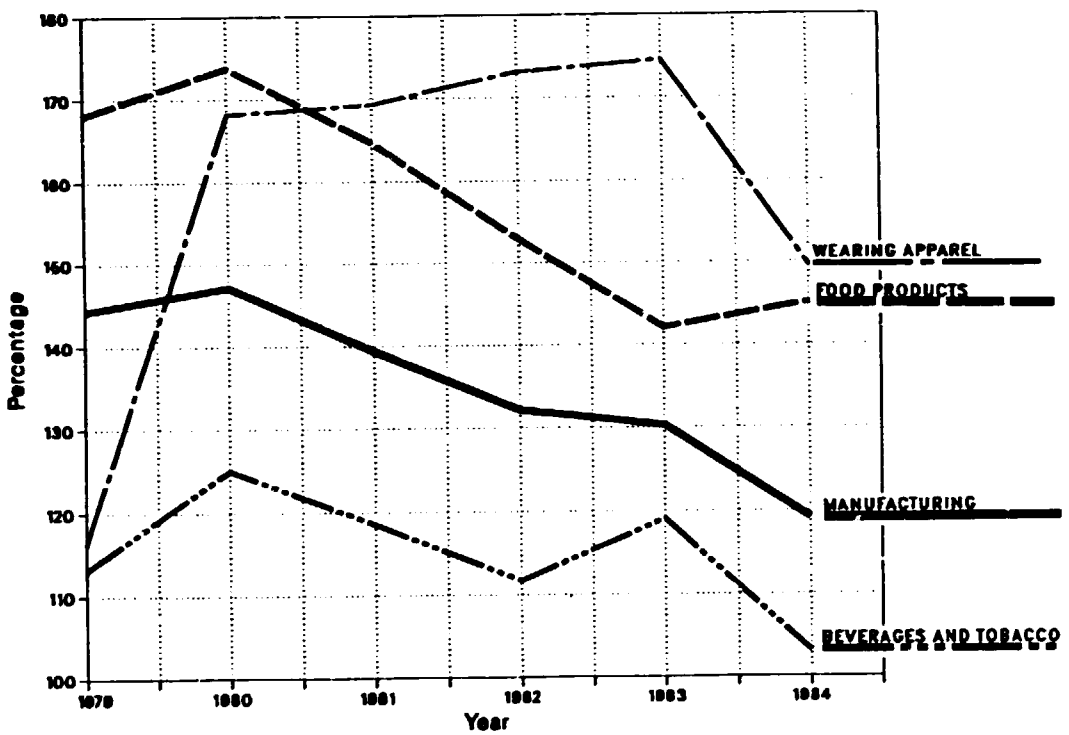
The manufacturing sector is basically export-oriented, which is necessitated by the small size of the domestic market. The main bottlenecks to development are the lack of proper infrastructural facilities, particularly roads, deepwater port and electricity, and the shortage of skilled manpower. Prior to independence in 1981 few efforts were made to attract foreign investment, with a view to building up domestic industries with the domestic resource-base. Efforts are to be directed towards attracting foreign investment in agro-processing industries and light manufacturing.

8.2.2 Growth, structural change and performance

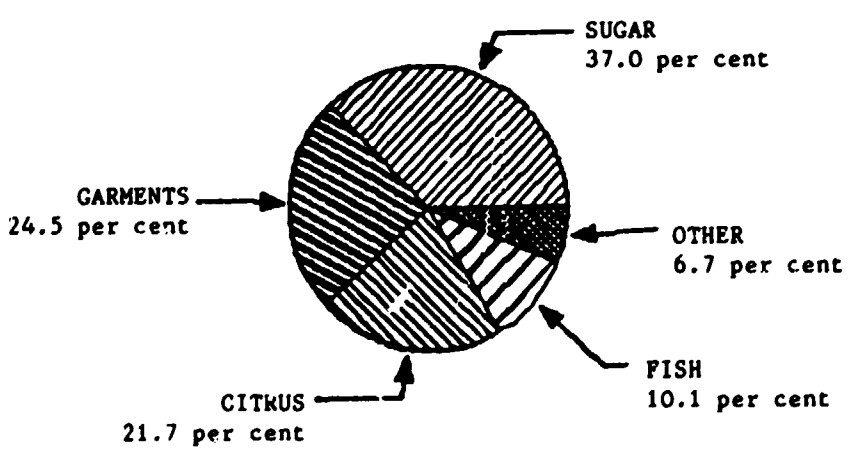
During the 1960s and most of the 1970s, manufacturing activities in Belize expanded significantly as a result of the expansion of the sugar industry, the re-establishment of the banana industry, the establishment of export-oriented garment factory, which enhanced the country's export potential, and the starting of several import-substitution industries producing cigarettes, flour mill, beer and fertilizer. However, towards the end of the 1970s the manufacturing sector suffered a sharp set-back, with MVA

MANUFACTURING TRENDS

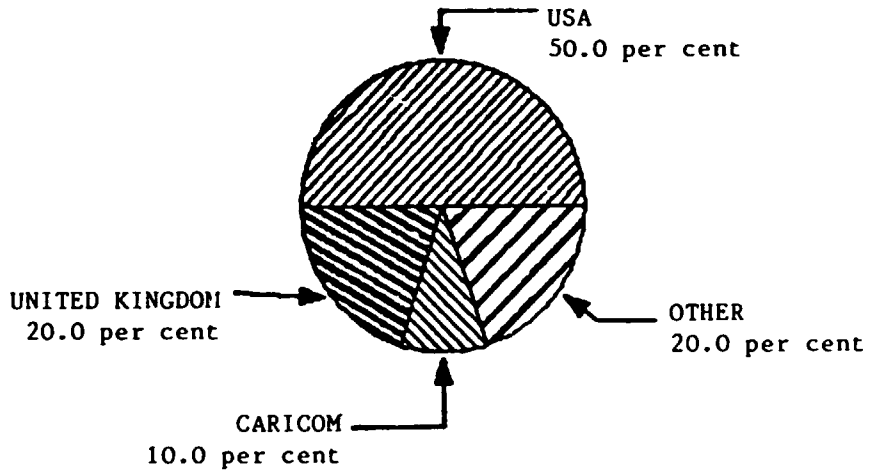
INDEX OF MANUFACTURING OUTPUT, SELECTED PRODUCTS, 1979-1984
(1971=100)



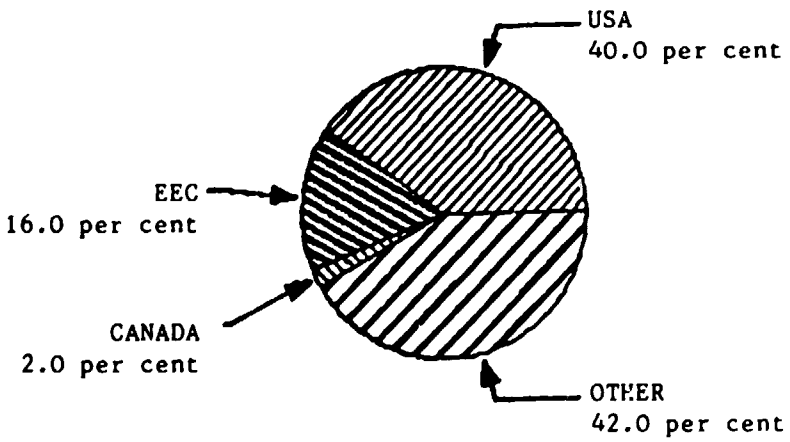
COMPOSITION OF EXPORTS, 1985



DESTINATION OF EXPORTS, 1985



ORIGIN OF IMPORTS, 1985



falling by 5.0 per cent in 1979. This marked decline was due partly to the smut disease which caused a 5.6 per cent fall in agricultural output, leading to the shortage of raw materials for the agro-processing industries.

Following subdued growth trends in the late 1970s the manufacturing sector rebounded in 1980 with MVA growing at 13.4 per cent. The index of industrial production (1971=100) rose from 151.7 in 1979 to 157.2 in 1980 and that of manufacturing increased from 144.3 to 147.5 during the same period (Table 8.2). However, 1981 and 1982 turned out to be two consecutive years of negative growth rates, with MVA falling by 3.3 per cent in 1981 and 6.9 per cent in 1982. In contrast to the general declining trend of the manufacturing sector the production index of food products reached its peak of 164.7 in 1981, and wearing apparel sustained its high pace of expansion until 1983. The unprecedented increase in food production could be attributable to the expansion of non-sugar food processing activities in 1981.

Growth in the manufacturing sector was estimated at 2 per cent in 1983. After a 4.1 per cent decline in the index of industrial output in 1984, the manufacturing sector as a whole recorded a 3.9 per cent real growth in 1985, resulting from significant increases in the production of cigarettes, rum and batteries.

Table 8.2 Index of industrial output, 1979-84
(1971=100)

	1979	1980	1981	1982	1983	1984
All industries	151.7	157.2	151.0	145.1	146.1	140.1
Manufacturing	144.3	147.5	139.4	132.2	130.3	119.3
of which:						
food	168.0	173.8	164.7	152.9	142.1	145.1
beverages & tobacco	113.2	125.1	118.6	111.8	119.1	103.2
wearing apparel	116.2	168.2	169.3	173.2	174.6	149.8
Other manufacturing	154.7	146.5	130.0	119.9	120.8	104.7

Source: Central Bank of Belize.

Table 8.3 presents information on sugar and molasses production trends experienced by the Libertad and Tower Hill sugar factories over a eleven-year period ending 1984. The Libertad factory was established in 1962 at Corozal, with an annual production capacity of 43,400 tons of sugar. The Tower Hill factory commenced its operations in January 1967, with a nominal capacity of 65,000 tons, but designed for further expansion to 100,000 tons. Sugar for local consumption (6,000 tons per year) was manufactured exclusively at the Libertad factory which currently remains closed. A marked decline in the production of both sugar and molasses suffered by the two factories (Table 8.3) in 1976 was due largely to the worst drought experienced by Belize during 1975/76. On completion of work on the Tower Hill factory expansion, total sugar and molasses output rose by over 20 per cent in 1978. The Tower Hill factory expanded its sugar production by 31.1 per cent and its molasses

production by 26.4 per cent in 1978. Production trends in the subsequent years show mixed trends. In 1981 production declined in the aftermath of smut disease.

The cost of production is substantially higher at the Libertad factory than at the more modern Tower Hill factory. Direct operating costs in 1984, excluding cost of cane, at the Libertad factory was BZ$ 44.96 per ton of sugar, compared with BZ$ 25.61 per ton at the Tower Hill factory. As mentioned earlier, efforts are underway to re-open the Libertad factory for the production of ethanol.

8.2.3 Manufacturing problems and prospects

Apart from infrastructural constraints that impede the expansion of manufacturing activities, Belize's industrial sector is being particularly adversely affected by the international decline in prices and adverse trends in the USA and UK which absorb around 60 per cent of the country's sugar exports. Although these markets pay higher prices than the free market, the recurrent sugar price cycle on the world market frequently affects the profitability of sugar processing operations. During the 1970s the import-substitution bias resulted in the establishment of several small industries which enjoyed import license allocation and development concessions. Many of these industries turned out to be inefficient industrial units in terms of price and quality. Given the limited size of the domestic market, the country's industrial development strategy is to be focused mostly on export-oriented industries. Belize has a considerable potential for agro-industries that is at present underutilized.

The most important development task in the industrial sector is to broaden the industrial base, by increasing the number of enterprises and the variety of activities. The nature of the resource base is such that a considerable diversity of raw materials are available in significant quantities, but the technological know-how and insight into the needs of foreign markets are not present locally. It is therefore almost inevitable that the government will need to involve foreign investors directly and indirectly in the expansion of the industrial base. So far there is little sign in the concerned agencies in Belize of the necessary insight into the needs of major overseas markets, which will precipitate the search for foreign investors, nor of awareness of the need to project Belize as either a base for off-shore manufacturing or for the processing of local raw materials for export to potential investors or joint venture partners in those markets.

8.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

8.3.1 Policies and institutions

The Government of Belize favours a mixed economy with the public sector providing the basic services, while the private sector takes the major responsibility for productive activities. Industrial development policies have so far tended to develop piecemeal, arising from diverse motives and sometimes apparently conflicting with one another; in practice, however, they rarely do, largely because of less than rigorous implementation. They encompass import tariffs, import licensing, price controls and various development incentives.

Table 8.3 Sugar and molasses production trends, 1974-84
(tons)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Sugar	88,897	82,874	61,799	91,853	113,555	98,600	103,276	97,725	105,980	114,278	101,525
of which:											
Libertad Factory	44,956	40,474	31,506	43,661	50,385	47,392	42,285	41,345	44,302	45,254	40,377
Tower Hill Factory	43,941	42,400	30,293	48,192	63,170	51,208	60,991	56,380	61,678	69,024	61,148
Molasses	27,042	28,068	20,749	29,597	36,113	32,960	32,278	31,980	37,704	37,704	32,601
of which:											
Libertad Factory	12,684	12,583	10,155	10,666	13,182	12,697	12,613	12,891	15,861	15,113	12,811
Tower Hill Factory	14,358	15,485	10,594	18,931	23,931	20,263	19,565	19,089	21,843	22,357	19,790

Source: Central Bank of Belize.

The government grants an array of investment incentives based upon the CARICOM treaty, which harmonized incentives for companies locating in the member countries. These incentives consist primarily of tax exemptions up to a period of 15 years, depending on the degree of value added locally; sometimes these incentives are reinforced by the granting of effective local monopoly rights via import licensing or prohibition of imports. Given the small size of the domestic market, the scope of the incentives granted for import substitution may well provide excessive protection, thus representing a misallocation of resources as well as reducing the scope for future horizontal industrial integration. There did not appear to be a consistent set of guidelines for the granting of these incentives based on a priority listing of preferred industrial activities; rather each application was based on a case-by-case basis.

Belize has had a series of price controls since 1963 on certain imported and locally produced commodities; the range of products covered is extensive, including processed and staple food items, hardware, drugs, and beverages. The controls include stipulated markups and mandated maximum prices, but they appear arbitrary in application and lack any systematic enforcement or monitoring mechanism. As such they may serve as a disincentive to domestic prodution.

The government also pursues a policy of local industry protection by means of import license restrictions and to a lesser extent of tariff imposition. Introduced in 1974 import licenses are granted on the basis of the degree of scarcity in the local market; they are currently required for 39 product categories, mainly food items; a further 28, where local producers have been granted monopoly production rights, are totally prohibited. This has the effect of leaving no incentive to produce goods competitively in terms of price or quality, not only imposing a burden on consumers, but also increasing the input costs of those producers most likely to succeed in export markets.

Belize has a tariff structure based on the CARICOM Common External Tariff; tariffs are generally determined in proportion to the degree of processing included in the imported product in proportion to 45 per cent ad valorem. Considerable variations occur, however largely because of the use of import duty exemptions as a development incentive.

The Government of Belize welcomes investment designed to increase production, domestic income, employment, foreign exchange earnings or savings, to diversify the economic base or transfer technology and skills to Belize. It is envisaged that more rapid rates of economic development could be achieved through increased private sector investment, and government sees its role as facilitator by providing basic infrastructural needs of roads, water, sewerage, electricity and communications. The public sector will participate directly in productive and other economic activities only where necessary and in such cases would prefer to do so in partnership with private enterprise. Foreign investment is especially welcomed, if it utilizes indigenous raw materials, produces for export markets and contributes to the employment and upgrading of the skills of nationals. Preference is given to joint ventures in which local entrepreneurs participate. The declared order of priorities for development is as follows:

- agriculture and livestock production;
- agro-industries;
- forestry, especially secondary processing;
- tourism;
- light manufacturing industries;
- aquaculture;
- mining and oil exploration;
- handicrafts;
- deep-sea fishing and processing;
- off-shore assembly plants (export-oriented).

Investment in Belize by non-residents is encouraged by the Central Bank of Belize, and projects which are likely to bring material benefits to the Belize economy may enjoy special facilities by way of financial assistance or by exemption from tax. Suitable investments may be given certain assurances regarding the repatriation of capital invested.

8.3.2 Resources for industrial development

Human resources

Of the total 47,000 labour force, around 4,700 persons were employed in the manufacturing sector. Belize is known to have a large supply of clerical, semi-skilled and un-skilled labour. Literacy rates are quite high and the tendency of trained and professionally qualified workers is to search for more lucrative employment in the Caribbean basin or in North America. Most Belizeans are bilingual and the work force is known for its ability to adapt to modern technologies and to be responsive to training. There are a series of technical colleges and vocational schools which provide training in industrial skills.

Agricultural resources

Next in line with the service, the Belize economy is dominated by agriculture and the potential for further development is considerable; the principal products are sugar cane, bananas, oranges, grapefruit, rice, maize, red beans, and beef. These already provide a broad basis for agro-industries and the possibilities for further new crops for processing for export are under investigation. Fish and wood are two further primary sectors with substantial processing opportunities which would significantly increase the amount of value added locally.

Energy

Belize has no major indigenous energy resource; the bulk of energy requirements are supplied by import of petroleum and petroleum products. Despite oil exploration over the last 30 years, no commercial finds have been made. Wood and charcoal still figure prominently for domestic use.

Finance

Belize has a Development Finance Corporation (DFC) which was established in 1973 to expand and strengthen the economy of Belize by:

- supplying finance either alone or in association with others for the development of agriculture, forestry, fishing, industry, tourism, housing and public utilities;

- purchasing, developing, improving land, and engaging in commercial ventures, either alone or in association with others;

- promoting and facilitating capital investment, both domestic and foreign, to achieve its purposes;

- undertaking, promoting, facilitating economic and financial studies as a guide to investment.

The DFC provides medium- and long-term development credit for viable projects. It provides technical assistance to potential borrowers and investors in the identification and development of worthwhile investment opportunities, and through a subsidiary undertakes equity investments in projects with a significant impact on Belize's development. The DFC also develops and operates an industrial park with financial assistance from the Caribbean Development Bank. This makes available pre-built factory facilities on competitive long-term leasehold arrangements.

8.3.3 The role of technical co-operation in industrial development

As a newly independent country, Belize accords priority to policies that aim at industrial transformation of its economy with external capital and technical assistance. The government has identified three main areas to be benefitted from external assistance: reinforcement of public sector planning and management; support to productive sectors; and assistance to the social sector.

The opportunities for technical assistance in Belize in the short- to medium-term therefore involve supporting the attempt to redefine industrial development policies, strengthening the established industrial development institutions to provide a much greater knowledge and awareness of the range of opportunities for processing which do exist, and carrying out a number of pre-feasibility and exploratory project investigations to increase the range of project ideas available to potential investors. In the small- and medium-scale sector, there is a need to reinforce existing schemes to supply credit and factory accommodation to local entrepreneurs by raising managerial and production skills so as to increase the effectiveness with which these resources are utilized. This is particularly the case with shopfloor supervisory and technical skills, where training and the introduction of improved production practices can significantly raise efficiency.

APPENDIX 8.A

Manufacturing projects assisted by the Commonwealth Secretariat, 1981-1986

1. Manufacture of processed food items
2. Development of fish processing
3. Manufacture of matches and wooden match splints

APPENDIX 8.B

Leading companies by sector, 1986

Agriculture

Belize Sugar Industrie
Belize Meats
Citrus Company of Belize
Belize Banana Board
Belize Timber

Manufacturing and Trade

Belize Estate and Produce
Belize Brewing Co.
Esso Standard Oil
Belize Aggregates
Bowen & Bowen
Belize Food Products
James Brodie & Co.
Santiago Castillo
Hofius
J.S. Espat

Other

Belize Electricity Board
Cable & Wireless (WIO)

Source: South, April 1986.

APPENDIX 8.C

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/INFR	(00.0)	DP/BHO/71/003	Industrial Free Zone Feasiblity Union, phase I
IO/INFR	(31.3.I)	IS/BZE/75/009	Exploratory mission on export processing free zone
IO/PLAN	(32.2.01)	TS/BZE/73/001	Assistance in the operational procedures of the development finance corporation of Belize and drawing up a project request to UNDP
IO/PLAN	(31.2.A)	SI/BZE/75/806	Assistance in industrial development
IO/FEAS	(31.6.A)	SI/BZE/75/805	Assistance in industrial planning
IO/AGRO	(31.7.A)	SI/BZE/75/807	Forest industry development
IO/AGRO	(31.7.D)	SI/BZE/79/801	Tannery, leather and footwear project
IO/CHEM	(32.1.B)	TS/BZE/77/001	Assistance in clay brick manufacture
IO/COOP	(31.1.A)	DP/BZE/74/004	Technical assistance to the Development Finance Corporation

2. The approved and operational projects

UC/BZE/86/065	IO/T/AGRO	J13106	Exploratory study for the establishment of a cassava processing industry

9

BERMUDA

9.1. THE ECONOMY OF BERMUDA

9.1.1 Recent economic trends

The economy of Bermuda is passing through a period of subdued and declining growth rates, with GDP growing at 0.9 per cent, -2.3 per cent and 0.7 per cent in 1984, 1985 and 1986 respectively. The sluggish economic growth rate is due principally to weak external demand in both the tourist and financial sectors, Bermuda's principal invisible foreign exchange earners. Tourism accounts for 33 per cent of GDP, and directly and indirectly for some 65 per cent of employment, while off-shore finance and insurance provide 20 per cent of GDP and 20 per cent of employment. Together these two sectors provide more than 80 per cent of the country's foreign exchange earnings which pay for imports of food and consumer goods. Foreign exchange earnings failed to keep pace with outflows, resulting in a few consecutive years of sluggish economic environment.

Bermuda's traditionally strong current account balance of payments surplus turned into a US$21 million deficit in 1984 when merchandise exports provided less than 4.3 per cent of foreign exchange receipts. The country's lack of manufacturing base results in a large outflow of foreign exchange on imports, of which 60 per cent come from the US.

Total government spending is set at BR$ 231.5 million in the 1986/87 budget. A projected BR$ 18 million revenue shortfall is likely to be met by increases in tax rates on land vehicle licences, beer, cider, spirits, cigarettes, petrol, fuel oil, diesel oil, hotel occupancy, etc. Capital spending is planned at BR$ 30.8 million, while current spending shows a 5.4 per cent increase over the level set in the previous budget.

A turnround in the depressed tourism sector and international business activities is less immediately apparent. The insurance sector, which accounts for the majority of international financial business in Bermuda, has also been contracting of late under the weight of competition in the world market. According to some estimates, if Bermuda is nominated as an approved venue for the holding of US companies' tax-deductible business conventions the economy could benefit by US $40-50 million a year.

9.1.2 Economic structure

The country's population was estimated at 56,652 in 1984, with an average annual growth rate of 0.6 per cent during 1971-84. Of the total 32,033 workforce, 18.9 per cent were employed in hotels and restaurants, followed by wholesale and retail trade (16.6 per cent), finance and insurance (13.4 per cent), civil service (12.2 per cent) construction (6.9 per cent), international companies (6.4 per cent) and manufacturing (3.6 per cent). Bermuda's GDP was estimated at around US $1 billion in 1986. Given its small population which grows at hardly 1 per cent annum, Bermuda enjoys an extremely high per capita GDP of around US $18,500 making it one of the highest in the world.

The country's small domestic market constrains the development of agriculture and manufacturing which together accounted for 15.4 per cent of GDP in 1983. Table 9.1 shows the demand components of GDP in 1976/77-1983/84. Virtually all growth in GDP stemmed from an increased domestic demand, principally consumer expenditure, which rose by 3.6 per cent. Although

Table 9.1 Demand components of GDP, 1976/77-1983/84
(in constant 1975/76 BR$ million)

	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84
Consumer expenditure	294.7	301.8	312.9	318.5	330.6	326.6	327.7	339.8
General government final consumption	41.0	43.2	43.6	47.2	48.3	50.4	52.6	53.6
Gross domestic fixed capital formation:								
Residential construction	12.7	13.6	14.9	15.5	12.5	14.3	19.3	20.8
Commercial and other construction	10.7	15.3	12.7	16.3	26.9	17.7	22.3	22.7
Machinery and equipment	23.1	25.0	28.3	32.1	39.6	36.6	49.3	46.2
Total fixed capital formation	46.5	53.9	55.9	63.9	79.0	68.6	90.9	89.7
Domestic demand	382.2	398.9	412.4	429.5	452.9	445.6	471.2	483.1
Exports: Visitor expenditure	158.4	147.2	156.3	179.2	184.3	151.2	151.2	151.9
International company expenditure	127.6	65.7	64.0	74.4	88.5	95.4	87.7	88.0
Other goods and services		56.3	56.6	51.9	49.8	50.9	59.1	59.9
Total	286.0	269.2	276.9	305.5	322.6	297.5	298.0	299.8
Total Final Demand	668.2	668.1	689.3	735.1	780.5	743.1	769.2	782.9
Less Imports: Goods	-181.1	-174.7	-180.6	-180.6	-204.4	-199.1	-215.8	-223.8
Services	-70.8	-70.9	-76.7	-88.2	-98.1	-92.2	-92.3	-95.8
Total	-251.9	-245.6	-257.5	-268.8	-302.5	-291.3	-308.1	-319.6
Gross domestic product at market prices	416.3	422.5	431.8	466.3	478.0	451.8	461.1	463.3

Source: Ministry of Finance, Statistical Department, Bermuda Digest of Statistics, 1985.

government consumption rose by 4.7 per cent in real terms, gross domestic fixed capital formation fell back a little compared with the previous year and against its rapid growth until 1982/83, excepting in 1981/82.

The economy of Bermuda is highly susceptible to world economic trends, particularly that of the US largely because of its dependence on two major sources of foreign earnings - tourism and international finance. Bermuda has scarce natural resources, and relies on these service sectors to generate sufficient foreign exchange to pay for its imports. However, Bermuda's small size and high price levels relative to other tourist locations in the Caribbean preclude any significant further expansion of tourism, rather future emphasis will have to be on the promotion of possible manufacturing activities.

9.2. THE MANUFACTURING SECTOR

The highly bewildering nature of data on manufacturing activities prevents an analytical exposition of the evolution and performance of manufacturing activities in Bermuda. Although no firm figures are yet available,[1/] it is possible to look at the main constraints and prospects.

The manufacturing sector in Bermuda is small and local industry is, therefore, mostly small-scale. The country's small size and poor resource endowment largely impede expansion of manufacturing activities. Bermuda's small manufacturing sector employs hardly 1,100 workers and encompasses activities such as ship repairing, small boat building, paints, pharmaceuticals, mineral water extracts, essential oils and handicraft activities, such as potteries, perfumes and woodworking. Export-oriented activities are limited to perfumes, summer's Gold Liqueur and re-exports of pharmaceuticals. Table 9.2 vividly depicts the meagre fraction of Bermuda manufactured products in total exports, which declined from 0.8 per cent of total exports in 1974 to 0.2 per cent in 1984.

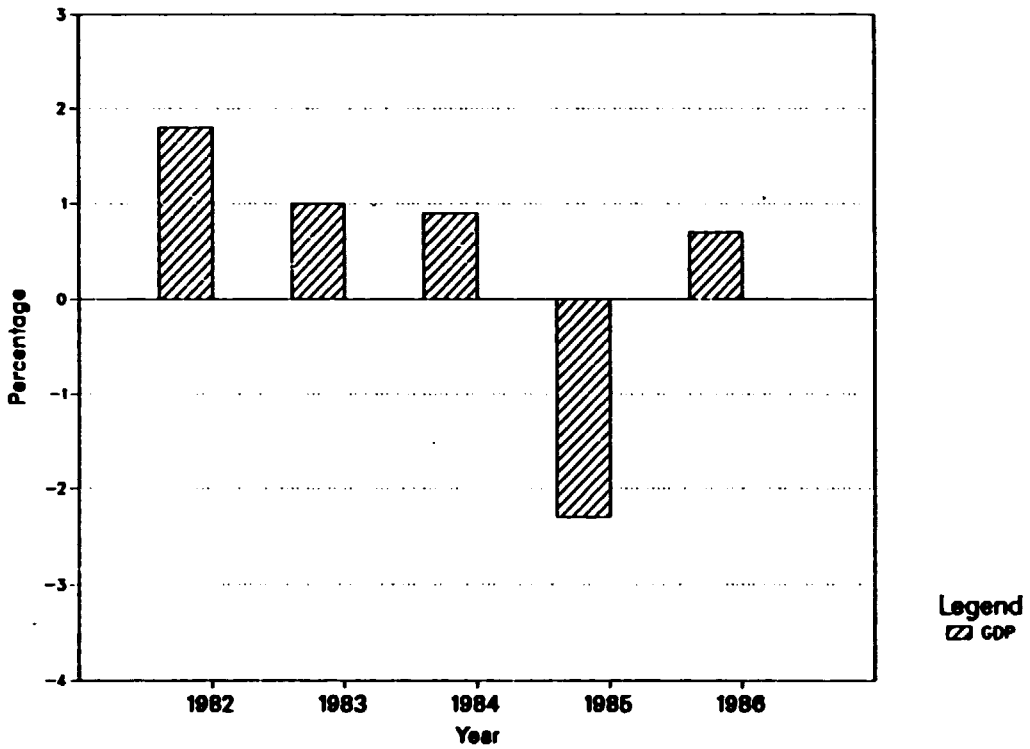
Bermuda's size and poor resource endowment largely precludes a manufacturing sector of any great size. Nevertheless there may well be off-shore manufacturing processes with specialist requirements which may find Bermuda to be a good location from which to serve the North American market. Such a process would be likely to involve low weight/high value products produced in relatively low volumes or small batches. Such industrial activities are likely to suit the government's approach to industrial development and may well originate from multinational or large scale private sector interests.

Possibilities do exist for the development of specific programmes in marine fisheries and agriculture. There are 350 fishermen, of whom 60 fishermen produce 80 per cent of the fish consumed on the local market. There are an estimated 700 acres of arable land and 150 farmers. Vegetable production constitutes the largest portion of agricultural output, most of which comes from 60 members of the farming community. A shark processing plant, developed with the aid of external assistance from UNDP/FAO, ceased to operate as a result of supply constraints. If arrangements could be made to assume steady supply of catch, fish processing activities could be developed.

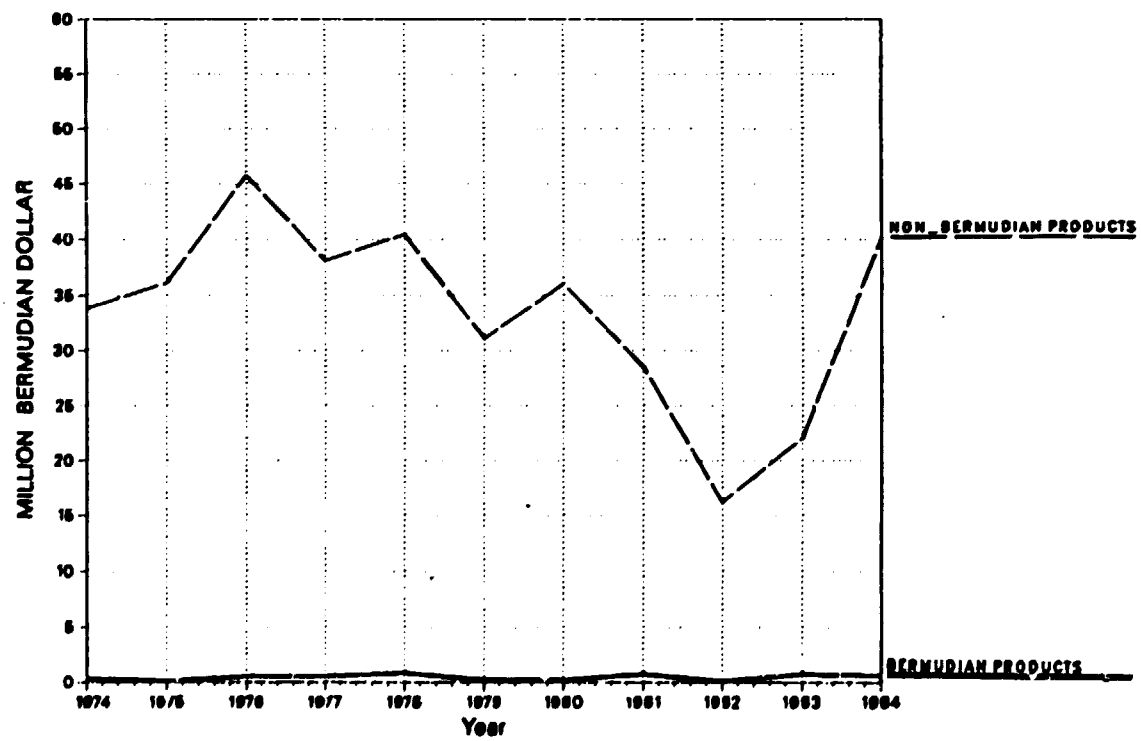
1/ Statistical Department affiliated to the Ministry of Finance does not report data on manufacturing subsectors in its annual publication entitled "Bermuda Digest of Statistics".

MANUFACTURING TRENDS

REAL GROWTH RATE OF GDP, 1982-1986

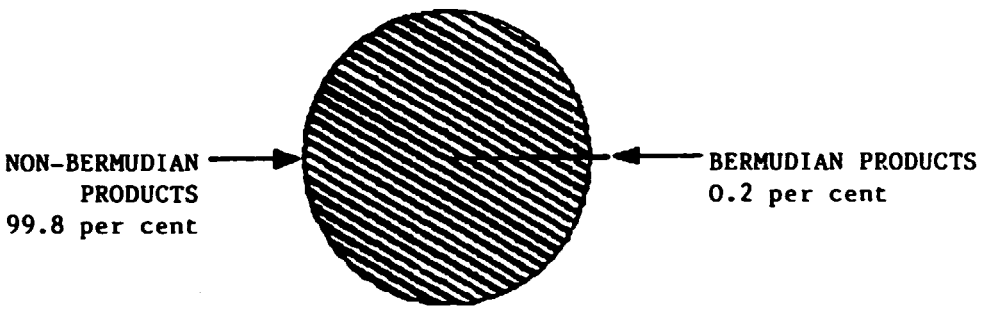


GROWTH OF EXPORTS, BERMUDIAN AND NON_BERMUDIAN PRODUCTS, 1974-1984



SHARE OF NON-BERMUDIAN PRODUCTS

IN TOTAL EXPORTS, 1984



DESTINATION OF EXPORTS, 1984

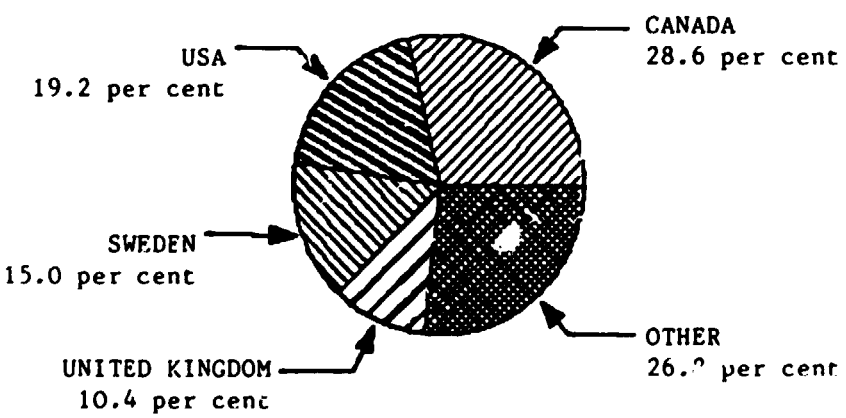


Table 9.2 Value of goods exported, 1974-84
(BR$ '000)

Goods	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Exports:											
Bermuda products	284	52	512	479	767	179	711	83	696	718	640
Non-Bermudian products:											
Minerals, fuels, lubricants and related materials	9,356	11,750	16,205	16,309	16,379	17,219	16,301	11,115	--	--	--
Chemicals (medicinal and pharmaceuticals goods)	16,094	14,099	18,429	16,033	17,212	7,646	13,748	11,784	9,818	13,253	22,677
All other	8,375	10,253	11,102	5,781	6,819	6,426	5,974	5,645	6,373	8,791	17,227
Total non-Bermudian products	33,825	36,102	45,736	38,123	40,410	31,111	36,023	28,544	16,191	22,049	39,904
Total exports	34,106	36,154	46,248	38,602	41,177	31,290	36,734	29,383	16,887	22,762	40,0544

Source: Ministry of Finance, Statistical Department, Bermuda Digest of Statistics, 1985.

In this respect, the Bermuda Biological Research Station (BBRS) has a key role to play. The Department of Agriculture and Fisheries is also interested in developing an economic activity based on the cultivation of dolphin fish and scallops in particular.

Goals of industrial policy

The government seeks to reduce the dependence on tourism in the long-term, and has given high priority to economic diversification. Some encouragement has been given to light industry in the free port area on Ireland Island North, where concessions provide duty-free import, manufacture and storage of products as well as assistance with factory accommodation.

Labour

Bermuda has a shortage of local manpower at almost all levels. Expatriate labour accounts for approximately 20 per cent of the work force, especially in professional and financial categories. Much unskilled and semi-skilled labour is recruited on short-term contracts from the Azores.

Raw materials

Bermuda has no major natural resources or sources of raw materials. The small acreage of arable land has been substantially eroded by housing and tourism developments. Only 700 ha of land are available for cultivation or grazing, 75 per cent of which are used by small holders for fruit, vegetables and flowers. Eighty per cent of Bermuda's food requirements have to be imported.

Energy

Bermuda has no indigenous source of energy. All of its energy requirements are met from imported petroleum, the majority of which is used for electricity generation.

Finance

Bermuda is a repository for somewhere between US $10 billion and US $20 billion of international funds. Yet, there are only three banks on the island, all locally-owned, Bank of Bermuda, The Bank of N.T. Butterfield and Son Limited and Bermuda Commercial Bank. The three local banks do not engage in much commercial lending. Their operations are geared towards international business. The establishment of several international companies in 1970s fuelled the growth of local banks in Bermuda. Insurance and other short-term funds helped create the unique character of banking in Bermuda.

Technical assistance to industry

A much larger role for technical assistance exists in the small and medium scale sector where there is a need to pursue diversification as far as possible through forward and backward linkages and service industries and to support the two main foreign exchange earning sectors, tourism and financial services. In organizations with professional staff, there is a continuing need to strengthen on-going training activities and to tailor promotional activities to the needs of these consumer sectors, so as to help ensure maximum integration with the local economy and to reduce the gap between the two as far as possible.

10
ST. LUCIA

10.1 THE ECONOMY OF ST. LUCIA

10.1.1 Recent economic trends

With an accelerated pace of economic growth since 1982, Saint Lucia is recovering from the dreadful effects of two hurricanes on agriculture, tourism infrastructure and economic performance during 1979-81. Real GDP grew at an average annual rate of 4 per cent during 1982-84. Despite a decline in manufacturing, resulting from import restrictions in the CARICOM market which tended to restrain garment production in particular, the economy of St. Lucia recorded a 5.8 per cent growth in 1985. The continued buoyancy of the economy in 1985 was attributable to a 5.5 per cent increase in agricultural production and a 9.5 per cent increase in tourist arrivals. According to preliminary estimates, the pace of economic growth was sustained in 1986. The growth of the economy is expected to continue in 1987, perhaps exceeding the rate of growth experienced in the 1960s and 1970s.

As a result of export expansion and lower levels of imports of capital goods, the deficit on current account of the balance of payments has narrowed from the annual average of 34 per cent of GDP during 1980-82 to around 11 per cent in 1983-85. The government attempts to reduce the import bill through increased production of domestic substitutions.

The 1986/87 budget proposes measures to improve efficiency in revenue mobilization, intending to strictly enforce the laws relating to non-payment. Nevertheless, the government offered an annuity on the interest due on all income tax arrears if settlement was made by June 30, 1986. The government also rationalized the tax structure, with a view to improve efficiency and to reduce the tax burden. Within the framework of rigid budgetary guidelines, the government envisages expenditure control.

Recent buoyancy of the economy seems to have limited impact on employment creation, leaving around 20 per cent of the labour force in the state of joblessness. While the country's labour force expands at 2,000 persons per year, the cost of public services in salaries and wages has more than doubled in the five years ending 1985/86.

By December 1985, St. Lucia's external debt reached US $28.7 million, representing 17 per cent of GDP. Since a major part of the outstanding debt is under concessional terms, the country's debt service ratio is around 5 per cent of exports of goods and non-factor services. In the wake of weak central government finances, St. Lucia tends to borrow more for financing its major capital projects in the public sector.

Given the recent improvements in agriculture and unexploited potential in tourism and manufacturing, St. Lucia's growth prospects depend on the continued expansion of these sectors.

10.1.2 Economic structure

With GNP per capita exceeding US $1,100 St. Lucia ranks as the most-developed of the Windward Islands. Its population was estimated at 136,771 in 1985, growing at 2.0 per cent per annum.

St. Lucia's economy has, traditionally, been dependent on agriculture as the island's principal and largest export earner. Table 10.1 shows that the

agricultural sector accounted for around 16 per cent of GDP in 1985. The relatively low shares of the sector in 1981 represented the aftermath of the hurricane in 1980.

Agriculture in St. Lucia is vulnerable because of its high dependence on bananas and coconuts - both crops tending to suffer from natural disasters, low productivity, and market constraints. The government's policy towards this sector consists of pursuing crop diversification, and developing linkages with the tourism and manufacturing sectors.

Construction activity, which contributed over 10 per cent of GDP in the early 1980, is heavily dependent on the growth of tourism and public sector investment. During the late 1970s the sector benefitted from the building of an oil trans-shipment and storage terminal. However, its share of GDP fell sharply to 4.9 per cent in 1983 and increased marginally in recent years. GDP share of manufacturing was over 8 per cent during 1980-85.

Tourism in St. Lucia began to expand at the beginning of the 1970s with the improvement of air transport links and construction of two major hotels. Growth was adversely affected by the world-wide slowdown of tourism in the mid-1970s. The sector subsequently recovered until the 1980 recession in the world's major industrial countries which caused a fall in the number of visitors. During the period 1976-1980 tourism contributed an average of 6.2 per cent per annum of GDP, although in periods of recession this may have fallen to less than 5 per cent.

Table 10.1 Distribution of GDP by sector of origin, 1980-85
(percentage)

Sector	1980	1981	1982	1983	1984	1985
Agriculture, forestry and fishing	12.1	10.2	13.2	14.5	14.9	15.8
Mining and quarrying	1.6	1.4	0.8	0.4	0.4	0.4
Manufacturing	8.5	8.6	8.9	9.5	9.1	8.8
Public utilities	3.1	3.1	3.2	3.3	3.4	3.5
Construction	10.3	10.7	9.1	4.9	5.3	5.7
Distribution	25.3	24.0	22.9	22.9	23.1	22.4
Transport, storage and communications	10.4	10.1	10.0	11.1	11.1	11.3
Government	18.0	21.0	21.0	22.0	21.6	21.1
Other services	15.3	15.8	15.9	16.2	15.9	15.7

Source: Statistical Department, Ministry of Finance, Planning and Statistics.

The country's principal contributor to exports is banana, accounting for almost 60 per cent of total exports. In contrast to a 25 per cent increase in banana export in 1985, exports of coconut derivatives, beer and clothing recorded considerably smaller earnings due to recent trade difficulties in other CARICOM countries. The United Kingdom remains the principal importer of goods and services from St. Lucia, accounting for around 60 per cent of total exports. Banana exports seem to enjoy a guaranteed market in the UK. The USA purchased 13.2 per cent of St. Lucia's total exports in 1985, but the CARICOM

countries as a group accounted for about 19.2 per cent, compared with 25.5 per cent in 1984. It appears that exports to both the Jamaica and Trinidad and Tobago markets are unlikely to increase in the near future, but there has been a steady growth in the exports of manufactured goods to the Organization of Eastern Caribbean States (OECS) markets.

10.2 STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

10.2.1 Overview of the manufacturing sector

Manufacturing activities on St. Lucia consist of a number of light manufacturing or processing industries, producing mainly food and beverages, garments, paper products and cardboard boxes, the latter being primarily for export. Haberdashery, furniture and bedding, electrical and electronic components, vehicle batteries, building materials and quarry products, plastics, toys and sports wear are also manufactured. As of the end of December 1984 there were 116 approved manufacturing establishments on St. Lucia; a further 12 enterprises were officially registered in 1985, but only five of these commenced production that year.

The major contributors to manufactured exports are paper products and cardboard boxes, wearing apparel and textiles, processed foods; beverages and tobacco. The estimated output of newly approved companies towards the end of 1985 stood at EC $24.07 million with an average of over 55 per cent of production being directed to overseas markets, principally to the USA and CARICOM countries. New investments increased significantly in 1985, specializing in sportswear, toys and electronics components. The National Development Corporation (NDC) now operates four industrial estates covering 230 acres, with the provision of 150,000 sq.ft. for factory space. With the aid of US $5.8 million, the NDC is currently constructing another 150,000 sq.ft. of factory space. The government also envisages the establishment of a free zone.

The emergence of enclave-type export manufacturing activities will probably be vital in the face of St. Lucia's high rate of unemployment. Employment creation and export expansion are crucial to St. Lucia, and the manufacturing sector could contribute significantly to the achievement of these endeavours.

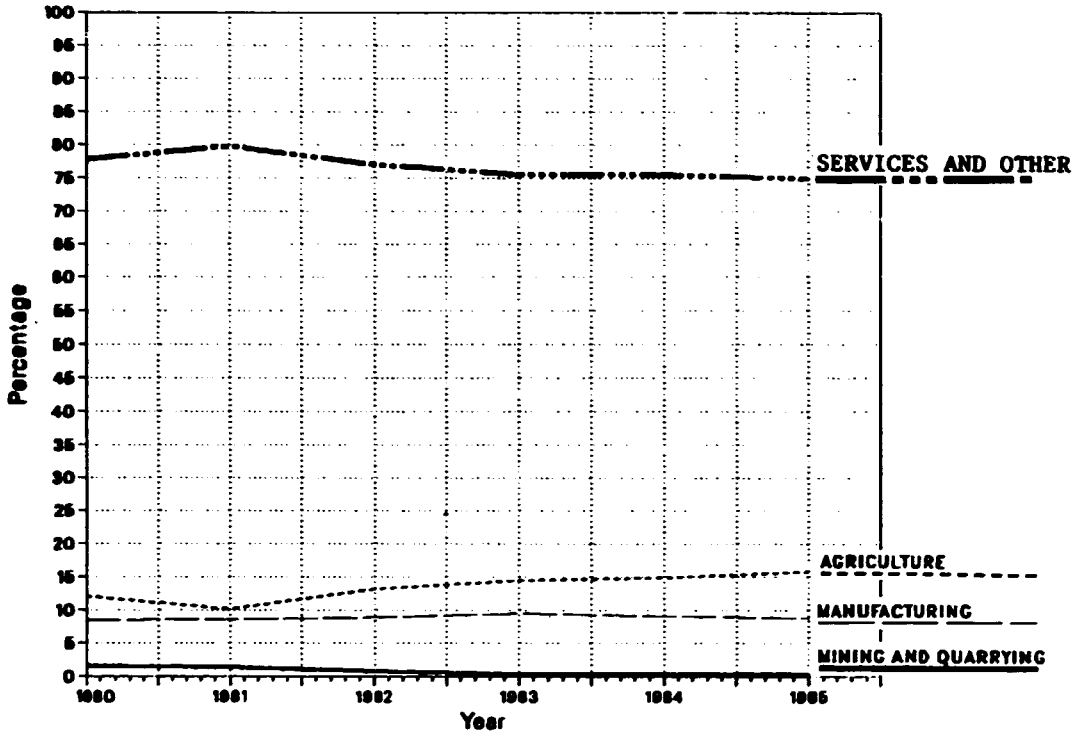
10.2.2 Growth and performance

Although St. Lucia's manufacturing sector is not fully developed, there has been a steady expansion of manufacturing activities. Value added in manufacturing recorded a 5 per cent increase in real terms since 1980, the main source of expansion stemmed from external enclave manufacturing activities as inward-oriented activities are constrained by the small size of the domestic market.

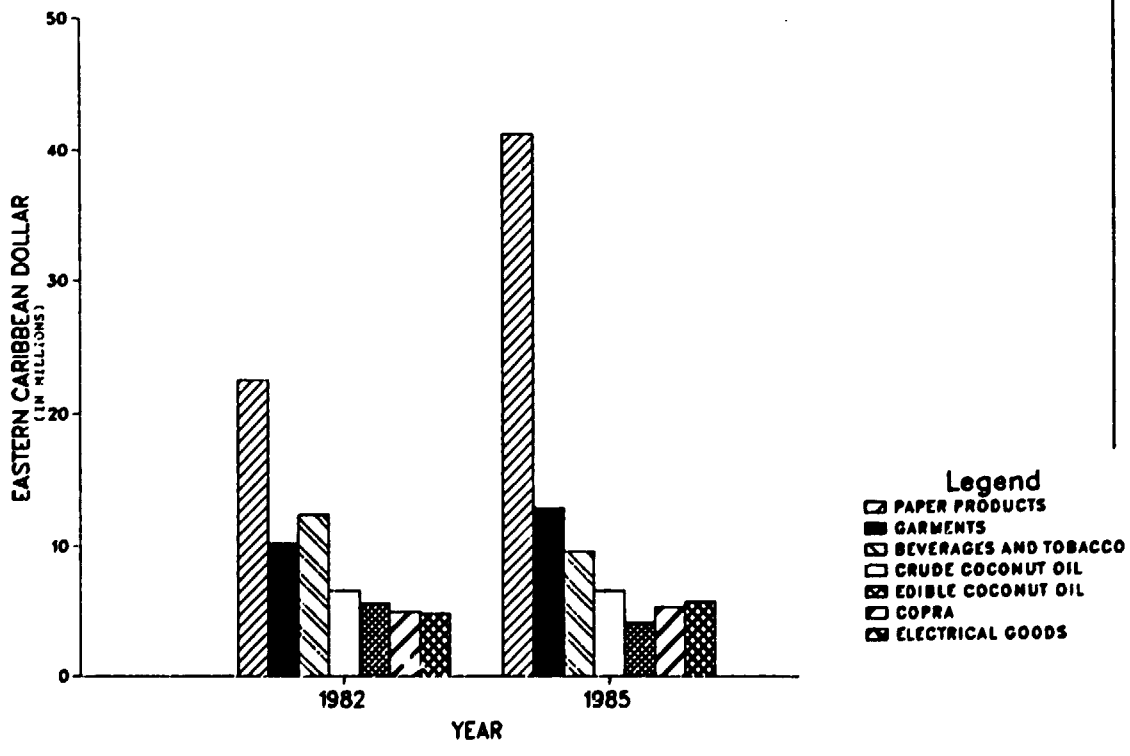
Table 10.2 shows the production trends in manufacturing subsectors during 1980-85. With the exception of paper products and cardboard boxes and a few food products, value of industrial products registered marked declines in 1985. Over a five-year period ending 1985, the production of laundry soap deteriorated sharply from EC$ 1.25 million in 1980 to EC$ 0.34 million in 1985. Over the period 1982 to 1985 the paper product and cardboard boxes category recorded the highest rate of growth in terms of output, while coconut

MANUFACTURING TRENDS

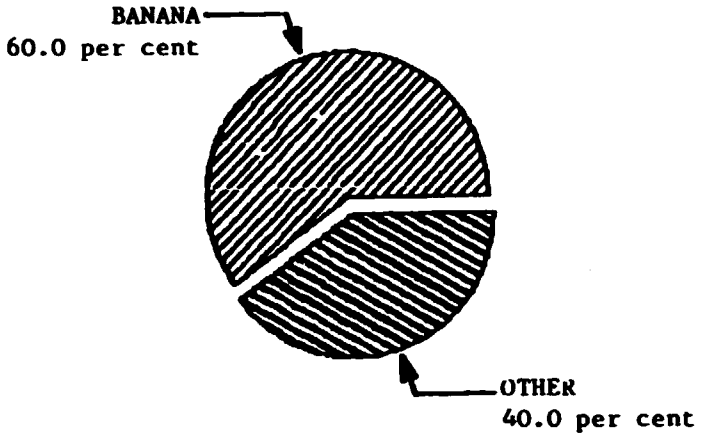
DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1980-1985



VALUE OF SELECTED MANUFACTURING PRODUCTS, 1982 AND 1985



SHARE OF BANANA IN TOTAL EXPORTS, 1986



DESTINATION OF EXPORTS, 1986

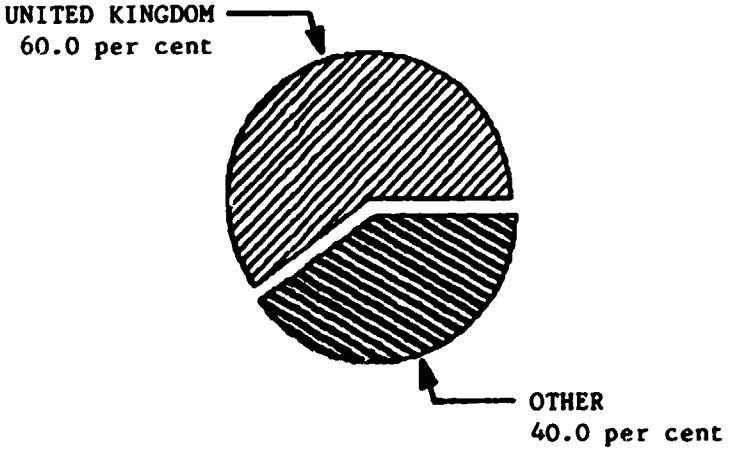


Table 10.2 Value of selected industrial products, 1980-85
(EC$ million)

	1980	1981	1982	1983	1984	1985
Laundry soap	1.25	1.38	1.64	1.49	0.38	0.34
Copra	7.67	3.25	4.89	6.30	5.45	5.34
Coconut oil - crude	7.47	4.04	6.59	6.74	6.62	6.58
- edible	4.27	2.66	5.56	6.66	6.41	4.12
Animal feed	0.46	0.23	0.49	0.51	0.40	0.39
Rum	3.10	2.85	2.45	2.88	3.02	2.35
Beverages and tobacco	13.45	12.35	12.35	10.28	8.77	9.59
Other beverages	7.20	7.25	6.19	6.81	6.56	7.44
Garments	7.38	8.49	10.16	9.73	19.40	12.89
Paper products and cardboard boxes	...	...	22.49	23.07	28.95	41.21
Electrical goods	...	...	4.84	5.61	5.51	5.73
Textile goods	...	...	0.27	0.44	0.44	0.14
Ind. chemicals	...	...	0.35	0.40	0.55	0.60
Tyre and tube retreading	...	...	0.55	0.54	0.57	0.36
Plastic goods	...	...	1.86	2.04	1.21	1.05
Sawn timber	...	...	0.19	0.08	0.09	0.10

Source: Statistical Department, Ministry of Finance, Planning and Statistics.

derivatives (chiefly coconut oil) tended to decline - largely because of the loss of the Jamaican market. The volume of manufactured exports has increased significantly, major contributors being paper products and cardboard boxes, wearing apparel and textiles, processed foods, beverages and tobacco. While trade restrictions with regard to the larger CARICOM markets have persisted, in 1985 St. Lucia's manufacturers have made greater progress in the smaller OECS markets. A review of subsectoral performance in recent years show mixed trends.

Food processing, beverages and tobacco

The processed food, beverages and tobacco subsector achieved substantial increases in production in the mid-1980s, particularly in beer, malt, stout, and margarine. Since CARICOM markets used to provide the major export outlets, the subsector has only begun to recover from the trade restrictions in the larger markets by increasing sales to Barbados and other OECS markets. The major challenge facing this subsector is to achieve an initial penetration of extra-regional markets. In 1985 the industry gained a small degree of access to other non-CARICOM regional markets despite difficulties in market penetration. With the continued support of the OECS propsects for 1987 seem promising.

The coconut derivatives subsector has seen a down-turn in production volumes since 1983. Exports of coconut oil and coconut meal have similarly declined under the influence of CARICOM's trade problems. Production of these products is very largely dependent on their export market potential; Jamaica and Trinidad, the largest regional consumers, have ceased to import oil from St. Lucia, and in the USA St. Lucian oil is not competitive on price with that

of the Philippines. While coconut meal and copra are expected to recover, laundry soap may continue to drop as a result of consumers' preference for other CARICOM soaps.

Electrical metal and assembly type products

Output of manufactured electrical and assembly type products has continued to rise in the mid-1980s, in part because of increasing local demand but mainly because of increased exports to the USA. Export volumes rose by 50 per cent in 1985, or in value terms by 60 per cent. In the wake of strained trade relations with the major markets in CARICOM, the industry experienced a 97 per cent decline in export volume to the CARICOM market in 1984, with no sign of recovery in the following years.

Paper products and cardboard boxes

Paper products and cardboard boxes have recorded regular increases in output and exports since 1982. In part this has been determined by the increase in banana production in St. Lucia, but sales to other OECS countries have also grown considerably - over 80 per cent in volume terms. Thus, the industry performed well on both the CARICOM and other foreign markets. The increasing production of paper products could be attributed in part to the growing protection for these products on the local market. A sharp rise in banana production in recent years has led to the concentration of the cardboard industry on the production of banana box production as opposed to the manufacture of other commercial boxes.

Wearing apparel and textile goods

The garment branch experienced a fall in output in 1985 of 25 per cent in volume terms. While the local market is protected against competition, access to larger overseas markets is critical to utilizing their installed capacity and maintaining employment. Since 1982 the producers have been obliged to reduce their dependence on Trinidad and Tobago, by exporting to the USA and to the Federal Republic of Germany, which are much more competitive markets. Over the 1982-85 period export volumes have risen by an average of 72 per cent per annum, although this includes exports to the USA by enclave establishments from imported fabric cut in the USA. The outcome of the CBI initiative will be especially important for this branch. The industry envisages increased production levels and market penetration in extra-regional markets.

10.2.3 Manufacturing problems and prospects

The arrival of several enclave type assembly plants has marked one step towards greater export orientation for the industrial sector, with larger volume production by foreign-owned companies tailored to the demands of distant markets. However, these producers are most often already integrated with established distribution systems prior to their arrival in St. Lucia. The difficulties of penetrating extra-regional markets are much greater for smaller, indigenous enterprises approaching the foreign market place for the first time.

The establishment of new enterprises has already produced significant results in the form of a quite well diversified industrial base in relation to the size of the domestic market. In some product categories volumes of output largely satisfy the requirements of the domestic market, where they enjoy some

measure of protection, and in addition St. Lucian industrial enterprises already export to neighbouring islands. Access to larger markets, such as these more develped members of CARICOM, is becoming increasingly important to the continued development of the industrial sector. Within CARICOM, however, there are signs that the larger markets are no longer able to continue to provide preferential access for St. Lucian products, so that St. Lucian producers are being obliged to seek further sales opportunities in more distant and more competitive markets outside the region.

Given the need to look outside the CARICOM region for additional export opportunities, the most pressing requirement is to upgrade production efficiencies and hence the competitiveness of St. Lucian producers to suit the more demanding requirements of buyers in the major industrialized countries. This is a long-term process involving the development of training and industrial support services, the encouragement of investment in more up-to-date production techniques, assistance with the supply of key inputs for expansion, and support for export promotion activities.

10.3 POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

10.3.1 Policies and institutions

The Government of St. Lucia is actively seeking to promote industrial growth with a view to reducing the island's traditional dependence on agriculture. One major initiative has been the proposed establishment of a free trade zone for off-shore manufacturing located at Vieux Fort, in which the National Development Corporation has a leading role.

The National Development Corporation also has land and a number of factory shells for rent at concessional rates; these sites have access roads and service connections for basic utilities. Currently there are three fully serviced sites: Bisee, Dennery, and Vieux Fort in addition to the Free Zone at Vieux Fort, and there are plans in hand to expand these sites.

The Government of St. Lucia welcomes foreign investment and is committed to the encouragement of free enterprise. Export-oriented and labour-intensive enterprises are favoured with emphasis on agro-industries, light manufacturing, assembly operations, and tourism-related enterprises.

There are no minimum capital requirement in force, nor are there any limitations on foreign participation in local companies. Repatriation of foreign capital, loans, royalties and similar payments must be arranged specifically with the Ministry of Finance. There is a 2 per cent foreign exchange tax on the purchase of all foreign currency.

There are two industrial incentive schemes. Under the Pioneer Industries Act pioneer status may be granted to a person, industry or enterprise in common with the legislation in force under CARICOM treaty arrangements. The available incentives include duty free importation of building materials, plant and equipment, and a tax holiday of up to 15 years depending on the nature of the investment and capital outlay. The Fiscal Incentives Act classifies enterprises into four groups and incentives are made available accordingly. Enterprises with more than 50 per cent local value added are given up to 15 years tax holiday; those with 25 to 50 per cent local value added, 12 years. Enclave industries are eligible for up to 25 years tax

holiday. Export allowances are also available in the form of a rebate on company tax in relation to the proportion of profit arising from exports.

10.3.2 Resources for industrial development

Human resources

St. Lucia has a labour force of about 40,000, out of which the number of employed in the manufacturing sector has doubled between 1970 and 1982. The proportion of women in the labour force is 47 per cent dominating the work force of such industries as electronics and component assembly.

Although the labour force is skewed towards unskilled and semi-skilled workers, through the continued high levels of enrolment in training institutions and with training-industry programmes, the country's labour force has demonstrated its ability to adapt to training and modern technology.

Agricultural resources

Amongst agricultural produce, banana and coconut are the main crops. Several rehabilitation programmes have brought about recovery or increases in production in recent years. Other export crops are cocoa and spices, including ginger. Fruits and vegetables have normally been produced for domestic consumption; traditional crops such as pumpkin, mango, plantains and yams have been joined by other non-traditional vegetables and fruits, including citrus, some of which have been exported.

Local raw materials are used for the manufacture of rum, edible oils, beverages, clay and timber products, and handicrafts. Most recently there has been a determined effort with Canadian assistance to develop the local fishing industry with a view to achieving local self-sufficiency.

Energy

St. Lucia depends entirely on imported fuel from Venezuela and Trinidad and Tobago for its energy requirements. In December 1981 the first phase of an oil trans-shipment and storage terminal was completed. This provides storage of oil for trans-shipment to refineries in the Caribbean region, particularly to that on St. Croix. The storage capacity is 5.3 million barrels, with the possibility of expanding this to 10 million barrels and the construction of a 200,000 b/d refinery at some time in the future.

Finance

The St. Lucia Development Bank was established in 1982 with financial assistance from the Caribbean Development Bank and figured large in the construction of factory accommodation at Vieux Fort in the south of the island; the Bank has also received assistance from the European Investment Bank for the promotion of small and medium scale industries.

10.3.3 The role of technical co-operation in industrial development

As St. Lucia's industrial sector becomes more export-oriented and utilizes more advanced and more varied technologies, there will continue to be a need for the creation of new, smaller enterprises to broaden the industrial infrastructure and to integrate export-oriented activities with the remainder

of the economy. In this area technical assistance will be required to accelerate the identification of business opportunities and to facilitate the process of transfer of appropriate technologies from outside the region to help ensure the optimum utilization of indigenous resources.

The government is actively seeking technical assistance for the establishment of the Itewanorre Free Zone and the Cul de Sac Industrial Park. In view of the country's high rate of unemployment, technical co-operation could aim at generating employment opportunities in industrial manufacturing by improving existing facilities and by planning for future projects. The recent high pace of economic growth originated largely from productivity gains in bananas and other industries, failing to create employment opportunities. Technical co-operation projects could initiate new projects that augur well for the utilization of the country's labour force.

APPENDIX 10.A
Manufacturing projects seeking external assistance

CONTROL NUMBER: 001255
ISIC: 3212
PROJECT NUMBER: STL/002/V/84 10 COUNTRY: St. Lucia
PROJECT TITLE: Bed Linen, Towels and Draperies
PRODUCT & CAPACITY: Sales value anticipated after expansion:
Bed linen: US$ 250.000
Towels: : US$ 145.000
Drapes/bedspreads: US$ 135.000
Upholstery: US$ 100.000
Table-cloths: US$ 25.000
COOPERATION SOUGHT: EQY, LNS, TEX, AFM, EQS, SCT
TOTAL PROJECT COST: US$ 317.500 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001256
ISIC: 3211
PROJECT NUMBER: STL/003/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Textiles for the Garment Industry
PRODUCT & CAPACITY: Current production: women's clothes and underwear
Expansion to production of textiles as raw material for regional garment industry
COOPERATION SOUGHT: JVE, RMI, TRX
TOTAL PROJECT COST: US$ 2,500,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001262
ISIC: 3412
PROJECT NUMBER: STL/004/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Corrugated Containers and Boxes
PRODUCT & CAPACITY: n/a
COOPERATION SOUGHT: EQY, LNS, SOT, EQS
TOTAL PROJECT COST: US$ 380,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001257
ISIC: 3113
PROJECT NUMBER: STL/005/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Fruit Juices
PRODUCT & CAPACITY: Fruit Juices (orange, grapefruit, passion fruit, sorrel, calypso fruit punch): 5,000 packages (0.25 to 1 litre)/hour
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 380,400 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001258
ISIC: 3220
PROJECT NUMBER: STL/006/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Garments Manufacture
PRODUCT & CAPACITY: Outer and under garments from PVC, nylon, cotton and polyester: 40,000 dozen/year
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 152,000 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

Manufacturing projects seeking external assistance
(continued)

CONTROL NUMBER: 001259
ISIC: 3699
PROJECT NUMBER: STL/008/V/84 10 COUNTRY: St. Lucia
PROJECT TITLE: Manufacture and Distribution of Ready Mix Concrete
PRODUCT & CAPACITY: n/a
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 259,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001260
ISIC: 3710
PROJECT NUMBER: STL/009/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Steel Rods and Corrugated Galvanized Sheets
PRODUCT & CAPACITY: Steel rods: 1,500 tons/year
Corrugated sheets: 1,500 tons/year
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 620,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001261
ISIC: 3115
PROJECT NUMBER: STL/010/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Coconut Cream
PRODUCT & CAPACITY: 1,000 tins/day
COOPERATION SOUGHT: EQY, LNS
TOTAL PROJECT COST: US$ 100,000 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001263
ISIC: 3215
PROJECT NUMBER: STL/011/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Coir Fibre Products
PRODUCT & CAPACITY: Processing of 1 ton/week of coir fibre to yarn, ropes, mats, carpets, car mats, interior decorations, etc.
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 120,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 001264
ISIC: 3113
PROJECT NUMBER: STL/012/V/84-10 COUNTRY: St. Lucia
PROJECT TITLE: Tropical Fruit Juices
PRODUCT & CAPACITY: 2,000 tins (15 oz)/day
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 166,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850116

CONTROL NUMBER: 002229
ISIC: 3220
PROJECT NUMBER: STL/013/V/84 10 COUNTRY: St. Lucia
PROJECT TITLE: Garments Manufacturing Subcontracting
PRODUCT & CAPACITY: Knit and woven outerwear and knit underwear for overseas companies (cut, sew and finish or sew and finish only as per United States 807 code): 36,000 dozen units/year
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 225,000 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850508

APPENDIX 10.B

Manufacturing projects assisted by the Commonwealth Secretariat, 1981-1986

1. Manufacture of paper products.
2. Manufacture of school uniform and terry products.
3. Development of small-scale engineering industries.
4. Manufacture of charcoal.
5. Manufacture of pumic portland pozzolonic cement and andacite building blocks.
6. Establishment of Free Trade zone and industrial estate.
7. Establishment of small and medium enterprises.

APPENDIX 10.C

Leading companies by sector, 1986

Agriculture
- St. Lucia Banana Growers Association
- Geest Industries (WI)
- St. Lucia Fisheries Marketing Corp

Manufacturing and trade
- Hess Oil St. Lucia
- Windward Islands Packaging Co
- Windward & Leeward Brewery
- J Q Charles
- J E Bergasse
- Copra Manufacturers
- A F Valmont & Co
- Stanthur Co
- Linmore International House
- Renwick & Co
- Monplaisir Supplies
- Carasco & Son
- Minvielle & Chastanet
- Peter & Co
- Sunbilt

Tourism
- Club Med
- Cunard La Toc Hotel
- Steinberger Cariblue Hotel
- Halcycon Beach Club
- St. Lucian Hotel
- Malabar (Couples) Hotel
- Smuggler's Village

Other
- St. Lucia Electricity Services (LUCELEC)
- Cable & Wireless (W)

Source: South, April 1986.

APPENDIX 10.D

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

ST. LUCIA

1. **The completed projects since 1972**

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/TRNG	(31.5.B)	RP/STL/82/001	Training in investment promotion service
IO/AGRO	(30.6.02)	DP/STL/72/015	Fellowship in food processing and preservation
IO/COOP	(31.1.E)	RP/STL/83/001	Training in industrial investment promotion techniques

2. **The approved and operational projects**

DP/STL/87/001	IO/IIS/FEAS	J12518	Training seminar in financial analysis and the computer model for feasibility analysis and reporting (COMFAR)

11

ST. VINCENT AND THE GRENADINES

11.1. THE ECONOMY OF ST. VINCENT AND THE GRENADINES

11.1.1 Recent economic trends

Following two major natural hazards, a volcanic eruption in 1979 and a hurricane in 1980, the economy of St. Vincent and the Grenadines rebounded from sharp setbacks and real GDP recorded an annual average grwoth rate of 4.8 per cent during 1980-84. During 1984 real ouput expanded at 3.5 per cent. While the economy experienced a lower level of economic activity in 1985, with GDP growing at 3.1 per cent, GDP growth for 1986 was forecast by the IMF at 7 per cent. Damage caused in September 1986 by tropical storms seem to have adversely affected the possibility of sustaining a high pace of growth.

The agricultural sector received a considerable boost in 1985 from continued exports of foodstuffs to Trinidad and Tobago and UK, and from the concluding of an agreement for the sale of arrowroot starch to overseas buyers. The trade deficit was reduced from EC$ 61.3 million in 1984 to EC$ 42 million in 1985 largely as a result of an 18 per cent increase in exports. Total international reserves reached their highest level in the first quarter of 1986, rising to US $19.51 million, compared with US $15.42 million in the first quarter of 1985. Recent growth trends suggest that the economy of St. Vincent and the Grenadines is on the track of export-propelled growth.

Total spending in the 1985/86 budget increased by 9.4 per cent, with current expenditure set at EC$ 97.9 million and capital spending at EC$ 67.1 million. In an attempt to raise revenue and to restrict imports, higher duties were levied on several imports, especially yachts, motor vehicles and alcoholic drinks. Import duties by non-CARICOM goods were raised by 15 per cent, which partly contributed to a reduction in trade deficit.

The 1984 Employment Survey indicated that over 40 per cent of the country's labour force was unemployed or underemployed. Most of the economically active population is employed in the agricultural sector. However, this sector's ability to create new employment seems to remain limited and new job opportunities will have to be created in the manufacturing, construction and services sectors. In November 1986 the government announced that a Three-Year Economic Development Plan would be published soon. A tourism development plan is currently being prepared, involving incentives to attract capital funding for total construction and improvement.

11.1.2 Economic structure

The country's population was estimated at 103,500 in 1984 - with GNP per capita of around US $860 St. Vincent and the Grenadines is one of the poorer small states in the Eastern Caribbean. The medium- and long-term prospects for its economy depend on the growth of three key sectors - agriculture, manufacturing for export, and tourism. The agricultural sector has a position of crucial importance to the economy, accounting for about 40 per cent of GDP. (See Table 11.1). The major produce are banana, food crops, yam and arrowroot. In the past major difficulties have been the low levels and instability of returns on export crops, because of draught, falling overseas market prices, or marketing difficulties.

Table 11.1 Distribution of GDP by sector of origin, 1980-85
(in current EC$ million)

	1980	1981	1982	1983	1984	1985
Agriculture, forestry and fishing	19.8	27.5	31.9	35.5	39.2	44.1
Quarrying	0.5	0.6	0.6	0.6	0.6	0.7
Construction	18.4	20.6	21.8	23.2	22.7	25.2
Manufacturing	14.2	18.4	20.7	21.3	22.0	19.6
Electricity and water	3.3	4.4	5.2	6.8	6.3	7.1
Transport and communications	20.5	25.6	30.9	33.2	35.9	37.6
Wholesale and retail trade	17.6	18.4	22.6	24.3	26.1	28.7
Hotels and restaurants	2.7	3.7	4.1	4.5	4.6	4.8
Banking, finance, real estate and business services	15.1	18.3	20.5	22.0	22.7	22.9
Public administration	3.1	3.1	3.2	3.3	3.4	3.5
Other services	4.6	5.3	5.7	6.1	6.4	6.5
Less imputed bank charges	7.4	8.5	10.8	11.4	13.0	11.0
Gross domestic product at f.c.	131.5	164.6	188.2	204.3	216.8	228.3

Source: Ministry of Finance, Planning and Department; OECS Secretariat.

Tourism in St. Vincent and the Grenadines is closely related to the performance of the sector in the Caribbean as a whole; this is because St. Vincent's tourism comprises mainly visits by yachts, inter-island cruise ships, and visitors from the region. Development thus far has tended to be rather haphazard, partly because of the varying resource endowment. St. Vincent itself has some spectacular mountainous scenery but few attractive beaches; the Grenadines on the other hand, are islands of high potential for tourism centred around yachting and high quality hotels to exploit their mountainous and forested terrain, long coral reefs and white, sandy beaches. As a result some of the Grenadines are more prosperous than the main island. A major inhibiting factor to development in the Grenadines has been the high cost of providing basic infrastructure and services, as well as improved communications and transport links. In particular the inability of St. Vincent's airport to take medium size, jet aircraft able to provide direct services to the southern states of the USA has been a major constraint on tourism.

St. Vincent has also developed a small financial services sector; however this has not been rigorously supervised. Another significant service activity which is a net contributor to the economy is the inter-island shipping trade which Vincentians dominate.

The share of manufacturing in GDP declined from 10.8 per cent in 1980 to 8.5 per cent in 1985, reflecting partly the slow growth of the sector over the past few years. The government intends to intensify efforts to promote efficient manufacturing enterprises, with a view to generating jobs and promoting exports.

The country's external sector is undergoing a process of diversification. Although agro-based commodities remain the principal

component of exports, the export of non-traditional manufactures, mainly from various enclave industries has been growing in importance and now comprises about 30 per cent of the domestic exports, compared with 12 per cent in 1980. If such a diversification is accompanied by a change in market destinations, the country's exports will become less vulnerable to fluctuations in currencies and commodity prices on the world market.

With around 55 per cent of exports destined for the CARICOM countries, the CARICOM group stands as the major trading partner of St. Vincent and the Grenadines. Within this grouping, Trinidad and Tobago absorbs 34 per cent of the exports directed to the regional markets. The UK and the USA have account for second and third places respectively. With the notable exception of Trinidad and Tobago, market penetration in other markets within the region poses problems in recent years.

In pursuit of strengthening public sector finances, including those of the non-financial sector enterprises, several administrative reforms are under way. Improvement in public finances call for substantial medium- and long-term measures that aim at efficiency in public sector operations. While the country's external debt is mostly at concessionary terms (low average rate of interest and high proportion of long-term debt), its internal debt consists mainly of high interest bearing overdrafts and loans with maturity of less than a year. Much of this debt was incurred by the financially weak public sector. Total external debt is expected to peak in 1987/88 as a result of project-related loans - including those related to the Hydroelectric project which is scheduled for completion in 1987.

11.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

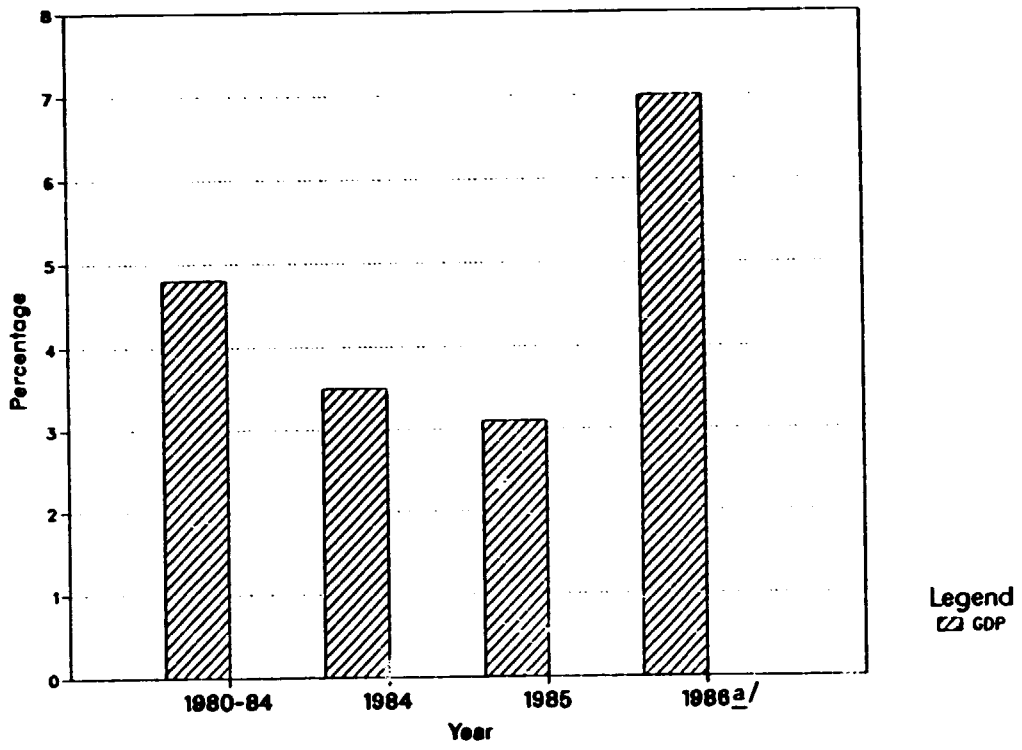
11.2.1 Overview of the manufacturing sector

The manufacturing sector of St. Vincent and the Grenadines is still at an early stage of development but a large range of products are made. The potential for domestic-oriented manufacturing is constrained by the small size of the domestic market, but the products already manufactured include garments, metal products, sporting goods, electronics components, building materials, furniture, and packaging materials; there is also some processing of sugar, arrowroot, flour and other foods, although the arrowroot processing industry has suffered from its high production costs and is in need of modernization if it is to become competitive again. There is some further potential for indigenous, modern, agro-industries on a small scale, and this is thought to offer good prospects of encouraging local entrepreneurial activity. However, some of the major obstacles to the growth of manufacturing activities on St. Vincent are the limitations of available infrastructure, especially in terms of energy and transport, and difficulties over external access and high freight costs.

Efforts to foster the process of industrialization are focused on agro-processing, garments, sporting goods, electronic assembly and toys because of their employment-generating capability. In support of these activities, the government is attempting to spur indigenous investment under new incentives at the local level. With a view to promoting external private investment in manufacturing, the government has taken steps to develop factory shells. Factory shells currently encompass 50,000 sq.ft. In the face of shortage of factory space, private sector participation in the factory shell

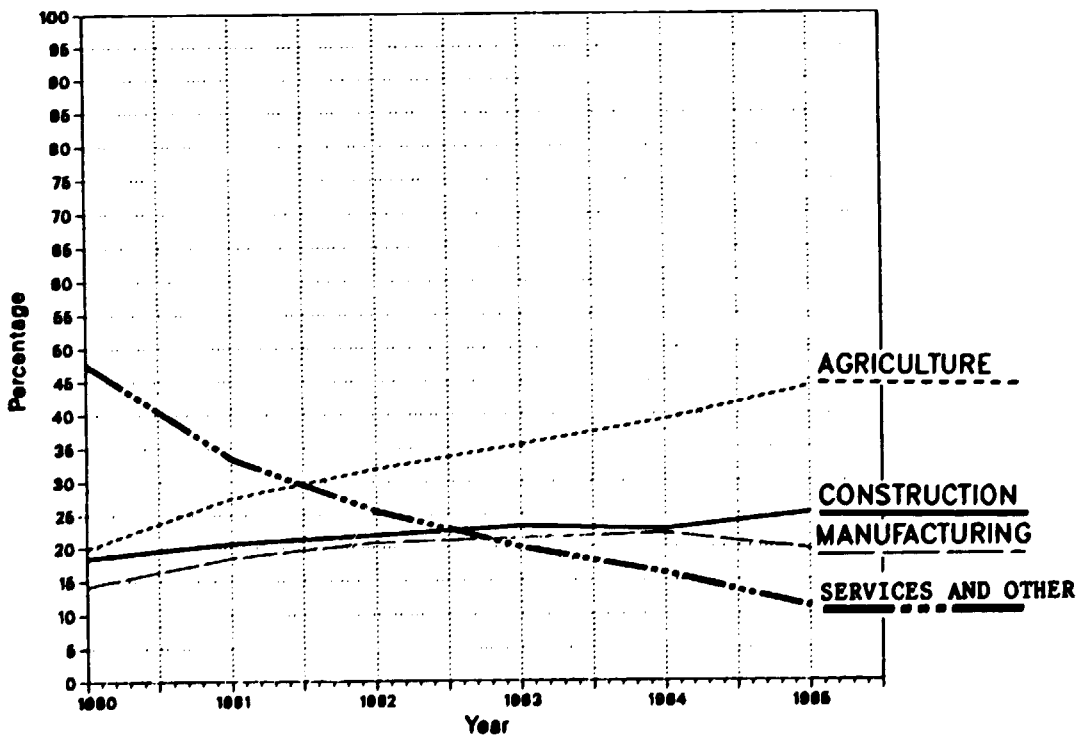
MANUFACTURING TRENDS

REAL GROWTH RATE OF GDP, 1980-1986

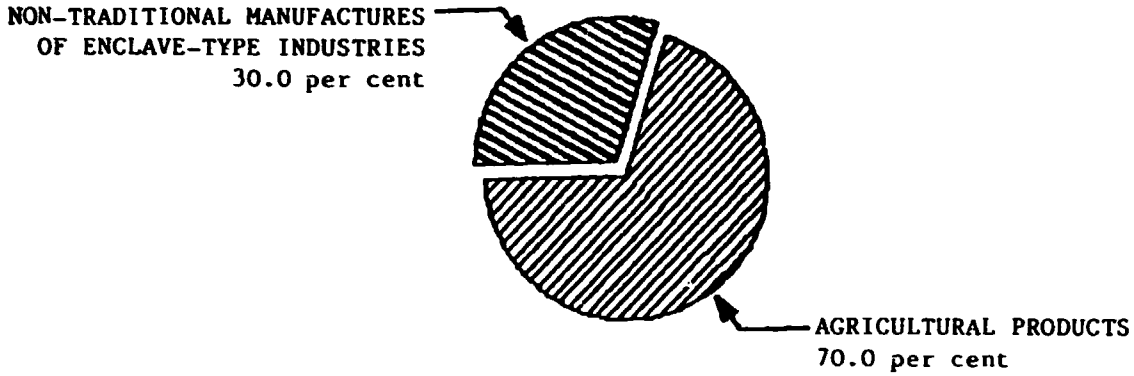


a/ IMF estimate.

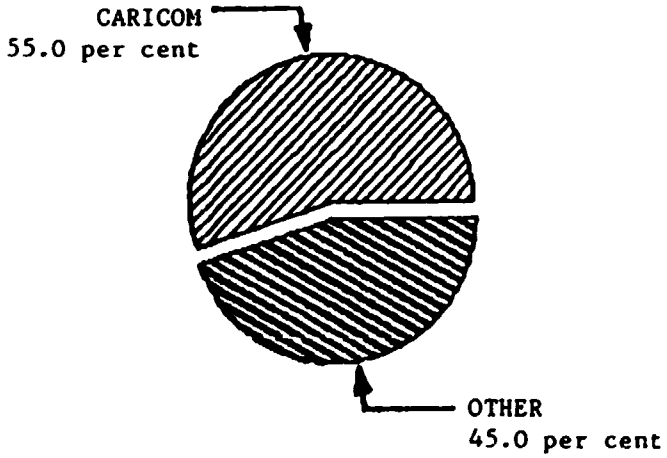
DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1980-1985



COMPOSITION OF EXPORTS, 1986



DESTINATION OF EXPORTS, 1986



programme is envisaged. Recent initiatives have led to the preparation for starting several projects, including poultry processing, rice milling, knitwear and industrial gloves.

11.2.2 Growth and performance of the manufacturing sector

Recent performance of the manufacturing sector has been somewhat disappointing, as some enclave activities, such as electronic components, suffered from lower capacity utilization because of market down-turn or technological developments in the USA. This highlights the vulnerability of small companies located in the Caribbean and dependent on a much larger, more advanced, nearby market, especially in high technology industries which, while they are high growth sectors, are also subject to rapid technological change and obsolescence. A further negative influence has been the uncertainty surrounding CARICOM trade arrangements. A number of import substituting enterprises have benefitted from import restrictions which have given them a virtual monopoly position in the local market. However, many of these domestic-oriented firms have performed relatively poorly in terms of capital efficiency and cost competitiveness.

Table 11.2 gives the production trends of selected industrial products during 1980-84. Apart from sugar, sugar by-products and arrowroot production, the agro-based industrial activities comprise mainly flour and food processing. The output of flour declined sharply in 1981. Its marked recovery achieved in 1982 could not be sustained in 1983. The production of animal feed and arrowroot starch recorded a steady expansion 1980-83. Reflecting the decline in coconut production, the output of coconut oil declined by 30 per cent in 1984 to about 140,000 gallons. On the other hand the volume of flour production increased by 22.9 in 1984 and its export also grew significantly.

Table 11.2 Production of selected industrial products, 1980-84

	1980	1981	1982	1983	1984
Animal feed (tons)	7,693	...	9,723	11,283	...
Arrowroot starch (EC$ million)	697	721	941	985	...
Flour (tons)	21,541	19,386	20,083	19,598	24,085
Galvanized sheets ('000 feet)		110	2,524	...	
Sugar (tonnes)	...	531	1,880	2,307	2,747
Molasses ('000 gallons)	...	...	...	286	268
Rum ('000 gallons)	...	...	115	120	68
Coconut oil ('000 gallons)	...	...	...	98	140

Source: Statistical Division, Ministry of Finance; Economic Commission for Latin America and the Caribbean.

Operating losses at the Arrowroot Industry Association's four factories were estimated at EC$ 281,000 in 1984/85. The industry has an estimated debt of US $3.1 million. In July 1985 the country's sugar industry was closed in response to the suggestions by a UN Food and Agricultural Organization study

which doubted the viability of running the industry when it accumulated debts to the tune of EC$ 42 million. However, FAO recommended that sugar cane could be grown in limited quantity to supply the rum distillery. In contrast to the adverse trends experienced by arrowroot and sugar industries, the islands' tobacco industry set a 38.9 per cent increase in production target for 1984/85. The overall performance of the manufacturing sector is far below that of agriculture, construction and tourism in recent years.

11.2.3 Manufacturing problems and prospects

Industrial promotion efforts are constrained by the shortage of factory space, the lack of infrastructural facilities and trade restrictions in the CARICOM region. Although the country's relatively low wage levels (US $30 per weak for assembly work) stand as a source of attraction to potential investors, weak institutional arrangements coupled with lack of managerial and technical skill inhibit rapid expansion of manufacturing activities. Although the government is keen on restructuring the institutional framework for industrial development, it has problems in getting apt personnel for follow-up actions. The country's diversified production profile could be further expanded if these constraints could be removed with the aid of external financial and technical assistance.

While industries producing arrowroot starch face the problem of accumulated stock, the estimated breakeven production level for sugar is set at 10,000 tons. These trends suggest that further expansion of these two industries should be directed towards the production of by-products. There are indicators that the government found a buyer to purchase the entire 3.7 million pounds of arrowroot starch which has been stocked for three years. Exports of non-traditional manufactured goods (SITC 5-8) increased significantly from US $4.7 million in 1980 to US $31.3 million in 1983, which demonstrated a rather rapid expansion of the output of enclave industries; The future prospects for further growth remain closely linked with the manufacturing sector's capability to penetrate new markets.

11.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

11.3.1 Policies and institutions

The new government which took office in July 1984 declared its intention of tackling the principal development issues confronting the nation, and in particular:

- to deal with the problems in the arrowroot and sugar industries;
- to introduce necessary administrative reforms;
- to encourage the development of the private sector to help reduce unemployment through industrialization;
- to pursue sectoral policies in agriculture, education, health, tourism, and infrastructure, designed to accelerate development.

The government's strategy focuses on export promotion and employment generation based on development of the agricultural, industrial and tourism sectors with a view to satisfying the basic needs of the population. Within

this strategy the goal of establishing enclave-type export manufacturing activities is paramount with a view to securing employment creation and export expansion. Unemployemnt at a rate of 40 per cent is the highest in the eastern Caribbean islands, and this is the most serious economic problem facing the government.

St. Vincent and the Grenadines are already very dependent on export earnings as a contributor to GDP. There are a series of incentives and fiscal benefits for investment in manufacturing, which conform to those in force throughout the OECS and CARICOM. These are intended to diversify production for export; the major elements of the system are the customs tariff, import licensing, and investment/export incentives. The combined effect of the present package of incentives and import restrictions seem to bias production in favour of production for the home market and encourage high cost, inefficient use of capital. Therefore a further issue of industrial policy is to how to reduce the incentive gap between export and import-substituting activities without affecting the sector's composition of investment appraisal and monitoring, so as to help ensure that the more appropriate industries are encouraged and that the prevailing incentive package remains appropriate to St. Vincent current situation.

Recent investment promotion efforts have been less than successful and in the 18 months from 1983 to mid-1984, no major projects were launched. In part this was because the Development Corporation (DEVCO) has had limited resources to undertake industrial promotion. The lack of factory space was another major constraint, but this obstacle was removed with the resumption of financial assistance from the Caribbean Development Bank; further assistance with the development industrial estate infrastructure has also been received from Canada.

The government has identified a number of industrial opportunities which may be of interest to investors. These include boat building, electronic component assembly, pharmaceuticals, poultry processing, rice milling, knitwear, and industrial gloves.

11.3.2 Resources for industrial development

Human resources

St. Vincent has a work force of about 40,000. Unemployment running at a rate of 40 per cent and particularly prevalent amongst youth and women, is now one of the country's most serious problems. However, the industrial workforce is relatively inexperienced and therefore requires careful provision for training and supervision at plant level. One further factor which has acted as a constraint on industrial development to-date is the shortage of local entrepreneurial and managerial talent, which inhibits the establishment of new enterprises and the scope for joint ventures.

Agricultural resources

St. Vincent has long been a major producer of arrowroot. Output of this root starch has declined steadily during the 1960s and 1970s to reach under 600 tonnes in 1971; a recovery to 1,000 tonnes in 1972 heralded only a period of further decline to under 500 tonnes in 1984. In the 1970s the computer industry became a major consumer for root starch, using it as a coating on computer paper; competition from modified wheat starch and from lower cost producers, such as Brazil, subsequently eroded St. Vincent's market in North America and Europe.

The re-establishment of the sugar industry in St. Vincent in 1980 resulted in an output of 1,800 tonnes in 1982 and 2,700 tonnes in 1984. High start up costs and construction overruns meant that the financial position of this activity remained precarious, and the project closed in 1985. In order to utilize the molasses by-product the project has diversified into rum production.

Energy

St. Vincent has suffered from load shedding and consequential disruption of power supplies. However, a power rehabilitation programme and an hydro-electric scheme are expected to have removed this constraint by the mid-1980s.

Finance

St. Vincent and the Grenadines has relied to a large extent on highly concessional capital inflows to finance its Public Sector Investment Programme. Prospects for continued support from external donors depend to a large extent on its ability to provide a counterpart contribution. After several years of negative savings in the public sector, the overall financial position improved in the mid-1980s, save for that of the non-financial public sector enterprises.

The prime agency for the supply of credit to local entrepreneurs seeking to establish new manufacturing enterprises is the St. Vincent Development Corporation (DEVCO), which also acts as the government's industrial agency. DEVCO has a broad responsibility for industrial development through direct investment or equity participation, investment promotion, small industry and agricultural credit, students' loans, land development, and farm improvement schemes. The corporation suffers from deficiencies in technical and managerial staff, especially for project appraisal, which accounts for the relatively large outstanding loan arrears, and also from inadequate equity finance.

11.3.3 The role of technical co-operation in industrial development

Project preparation and execution in St. Vincent and the Grenadines in the past have suffered from the limited availability of local, administrative and managerial skills. Accordingly a substantial component of technical assistance programmes continues to be direct assistance with feasibility studies, project preparation and implementation, institution building, together with management and technical training often in association with investment programmes. Further assistance is required with the exploration and identification of new projects in non-traditional areas to broaden the range and depth of expertise available to the government.

One of the priority areas requiring technical assistance is the Agro-Lab which could be used for research and development, standardization and quality control. In a second phase, it could also aim at setting up a multi-purpose food processing facility. Technical assistance could determine export market opportunities and market penetration strategies for agro-based products.

APPENDIX 11.A

Manufacturing projects seeking external assistance

CONTROL NUMBER: 001249
ISIC: 3113
PROJECT NUMBER: STV/005/V/84-10 COUNTRY: St. Vincent
PROJECT TITLE: Guava, Sorrel and Mango Products
PRODUCT & CAPACITY: Pinacolada, gravy browning, etc.
COOPERATION SOUGHT: LNS, AFM
TOTAL PROJECT COST: n/a PROJECT IS: Expansion
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850115

CONTROL NUMBER: 001250
ISIC: 3220
PROJECT NUMBER: STV/006/V/84-10 COUNTRY: St. Vincent
PROJECT TITLE: Ladies', Men's and Children's Clothing
PRODUCT & CAPACITY: Ladies', men's and children's jeans; ladies' and girls' dresses
COOPERATION SOUGHT: LNS, SOT, AFM
TOTAL PROJECT COST: n/a PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850115

CONTROL NUMBER: 001251
ISIC: 3121
PROJECT NUMBER: STV/007/V/84-10 COUNTRY: St. Vincent
PROJECT TITLE: Specialty Foods
PRODUCT & CAPACITY: 100,000 packets/month of snack foods (sugar cakes, ginger sticks, chips from bananas, potatoes, breadfruit and plantain, cassava bread, dried bananas)
10,000 gals/month of creole seasoning and pepper sauce
TOTAL PROJECT COST: US$ 120,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850115

CONTROL NUMBER: 001247
ISIC: 3212, 3220
PROJECT NUMBER: STV/003/V/84-10 COUNTRY: St. Vincent
PROJECT TITLE: Household Linen and T-Shirts
PRODUCT & CAPACITY: Bed linen: 115,000/year
Towels: 100,000/year
Drapes: 10,000/year
Table-cloths: 5,000/year
T-shirts: 145,000/year
COOPERATION SOUGHT: LNS, AFM
TOTAL PROJECT COST: US$ 198,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850114

Manufacturing projects seeking external assistance
(Continued)

CONTROL NUMBER: 001248
ISIC: 3825
PROJECT NUMBER: STV/004/V/84-10 COUNTRY: St. Vincent
PROJECT TITLE: Personal Computers
PRODUCT & CAPACITY: Personal desk top computers; mainframe computers and telecommunication equipment
Assembly of 300 units/month; potential increase to 1,500 units/month
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 1,413,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850114

CONTROL NUMBER: 001252
ISIC: 3699
PROJECT NUMBER: STV/008/V/84-10 COUNTRY: St. Vincent
PROJECT TITLE: Fibreglass Products
PRODUCT & CAPACITY: Fishing boats, gas and water tanks, furniture
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 23,650 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850115

APPENDIX 11.B

Leading companies by sector, 1986

Agriculture

Geest Industries (WI)
St. Vincent Banana Growers' Association
St. Vincent Arrowroot Industry Association

Manufacturing and trade

Corea's Trading
Diamond Dairy Co
East Caribbean Flour Mills
Arnos Vale Oil Industries (1979)
St. Vincent Container Crop
St. Vincent Brewery
Bottlers (St. Vincent)
Hazell's
W J Abbott & Co
W B Hutchinson & Co
Frank B Armstrong (St. Vincent)
T Geddes Grant (St. Vincent)

Tourism

Young Island Resorts
Petit St. Vincent Resorts (Petit St. Vincent)
Sunset Shores
Palm Island Beach Club (Palm Island)
Sunny Caribe (Bequia)
Cotton House (Mustique)
Bequia Beach Club (Bequia)
Frangipani (Bequia)
Villa Lodge
Grand View

Other

St. Vincent Electricity Services (VINLEC)
Cable & Wireless (WI)

Source: South, April 1986.

APPENDIX 11.C

THE COMPLETED TECHNICAL CO-OPERATION PROJECTS OF UNIDO

ST. VINCENT AND THE GRENADINES

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	Project Title
IO/AGRO	(31.7.C)	DP/STV/76/001	Food processing

12
GRENADA

12.1. THE ECONOMY OF GRENADA

12.1.1 Recent economic trends

The economy of Grenada is recovering from economic decline suffered during 1982-83. Real GDP grew at 2.0 per cent in 1984 and 3.7 per cent in 1985, compared with a stagnating growth rate of 0.6 per cent in 1982 and a negative growth rate of 2.9 per cent in 1983. According to preliminary estimates, real GDP grew by 4.3 per cent in 1986.

During 1982-83 the performance of the agricultural sector, the backbone of the economy, was adversely affected by falling commodity prices, recession in major export markets and by the aftermath of natural disasters in 1979 and 1980 when three hurricanes struck the region. Small production increases of some commodities had been cancelled out by falling commodity prices. The main source of growth in the current recovery phase is tourism, which recorded a 34 per cent increase in value added in 1985. The other two sectors contributing to growth are the manufacturing sector, which registered an 18.8 per cent increase in value added in 1985 compared with a 13.7 per cent fall in the preceding year, and government services which grew by 11 per cent in 1985. There were signs of renewed growth in the country's exports in 1986. Preliminary estimates indicate that Grenada's exports rose by 26.4 per cent during the first half of 1986 as a result of improved prices for cocoa, nutmeg and bananas. In the first quarter of 1986, international reserves stood at US $18.18 million, compared with US $15.49 million in the first quarter of 1985. The estimated growth rate for 1986 was 4.3 per cent. According to official projections real GDP is expected to grow by 5.0 per cent in 1987.

The 1986 budget featured a historic restructuring of the country's tax system in its fiscal history as it abolished 16 taxes including income tax. However, four new taxes were introduced including a 20 per cent value added tax, land value tax, company tax and petrol tax. Revenue losses, arising from the new tax system, coupled with cuts in US budgetary support resulted in a financial gap of EC$ 19.5 million in the first half of 1986 and led to the postponement of some public sector investments.

The proposed public sector investment programme for the period 1986-1988 amounts to EC$ 287 million. The Programme envisages a shift of capital expenditure toward the productive and social sectors. Infrastructure still accounts for the bulk of the programme, with a shift in emphasis from transport to communications, water and sewerage. A realistic assessment of resource availability suggests a huge resource gap and calls for large inflows of financial assistance from external sources.

Since large inflows of US aid reduced the balance-of-payments deficits in 1984 and 1985, total outstanding debt remained fairly constant during the period. Total outstanding debt stood at an estimated EC$ 181.2 million in June 1986 and debt-service payments absorbed around 16 per cent of export earnings. Currently Grenada seeks to reschedule its accumulated arrears which exceed US $3 million.

The targeted 4-5 per cent growth rate for the next four years is to be achieved through the development of specific projects in the productive sectors and through the strengthening of basic infrastructure. The value

added tax is currently being reviewed, with a view to accommodating suggestions given by business interests. Any change in the tax system is to create all possible incentives to stimulate growth in the productive sectors.

12.1.2 Economic structure

Grenada's population was estimated at 100,341 in 1985 growing at an annual rate of 1.1 per cent. The country's national territory includes the Grenadine islands of Carriacou and Petit Martinique.

Grenada is mountainous and thickly wooded; it has been known for a long time as the spice island, because of its sizeable production of nutmeg, mace and cloves. For its size Grenada's economy is quite well diversified, combining both subsistence and export agriculture with tourism. On account of their small domestic markets, all of the Windward Islands depend mainly on export production for long-term growth; however, none of these island countries is self-sufficient in food production and therefore there is some potential for further development through import-substitution. On Grenada, tourism has encouraged fruit, vegetable, and food crop cultivation, and has also stimulated fishing, livestock, and poultry production. There is also a small industry sector involved in the processing of food and beverages, production of animal feed, soap, oil, rum, and flour.

Although the share of agriculture in GDP declined from 23.8 per cent in 1980 to 16.3 per cent in 1985 (Table 12.1) the sector remains important in the economy mainly through the production of export crops, such as nutmeg, mace, cocoa, banana and fresh fruits. In the early 1980s the agricultural sector provided employment for nearly 25 per cent of the country's labour force. The sector experienced a general decline over the past few years, but the prospects for traditional crops have improved recently, and the abolition of export duties on these crops is expected to stimulate production.

Table 12.1 Distribution of GDP by sector of origin, 1980-85
(percentage)

Sector	1980	1981	1982	1983	1984	1985
Agriculture	23.8	21.8	18.6	18.7	18.1	16.3
Quarrying	0.9	1.1	1.3	1.1	1.1	1.1
Manufacturing	5.1	6.3	6.9	6.4	5.6	5.8
Utilities	2.2	2.1	2.2	2.2	2.2	2.2
Construction	6.6	8.6	9.4	7.8	7.6	7.5
Wholesale and retail trade	17.9	16.2	16.5	16.1	15.5	15.4
Hotels and restaurants	4.3	4.4	4.2	4.5	5.2	6.4
Others	39.2	39.5	40.9	43.2	44.7	45.3

Source: Central Statistical Office.

The share of manufacturing in GDP rose from 5.1 per cent in 1980 to around 7 per cent in 1982 as a result of a rapid pace of expansion achieved in 1981 and 1982, with MVA growing at 33.7 per cent and 13.0 per cent

respectively. However, two consecutive years of negative growth rates in 1983 and 1984 led to a fall in its share of GDP to 5.6 per cent in 1984. In 1985 the share increased slightly to 5.8 per cent. The share of the construction sector continued to expand until 1982. Most of its activities were related to the new International Airport and road construction financed mainly from external sources. Wi over a 20 per cent decline in 1983 and 1984, there was a considerable decline in the share of construction in GDP from 9.4 per cent in 1982 to 7.5 per cent in 1985.

Agricultural products account for nearly 90 per cent of merchandise exports, with traditional crops, i.e., nutmeg, mace, cocoa and bananas providing 60 per cent and fresh fruits contributing 30 per cent. Imports for the construction of the Airport represented 13 per cent of total imports in 1984. The other major components included a wide range of manufactured goods and mineral fuels. In the early 1980s imports from CARICOM countries represented 30 per cent while the USA, Canada and the UK provided 48.8 per cent of Grenada's imports.

In consequence of the strong revival in agricultural exports and tourism, the labour market improved in 1985 and unemployment fell from 30 per cent to 25 per cent of the labour force. The promotion of private sector investment is an important element in the government's policy of increasing employment opportunities in all productive sectors, particularly in the manufacturing sector.

12.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

12.2.1 Overview of the manufacturing sector

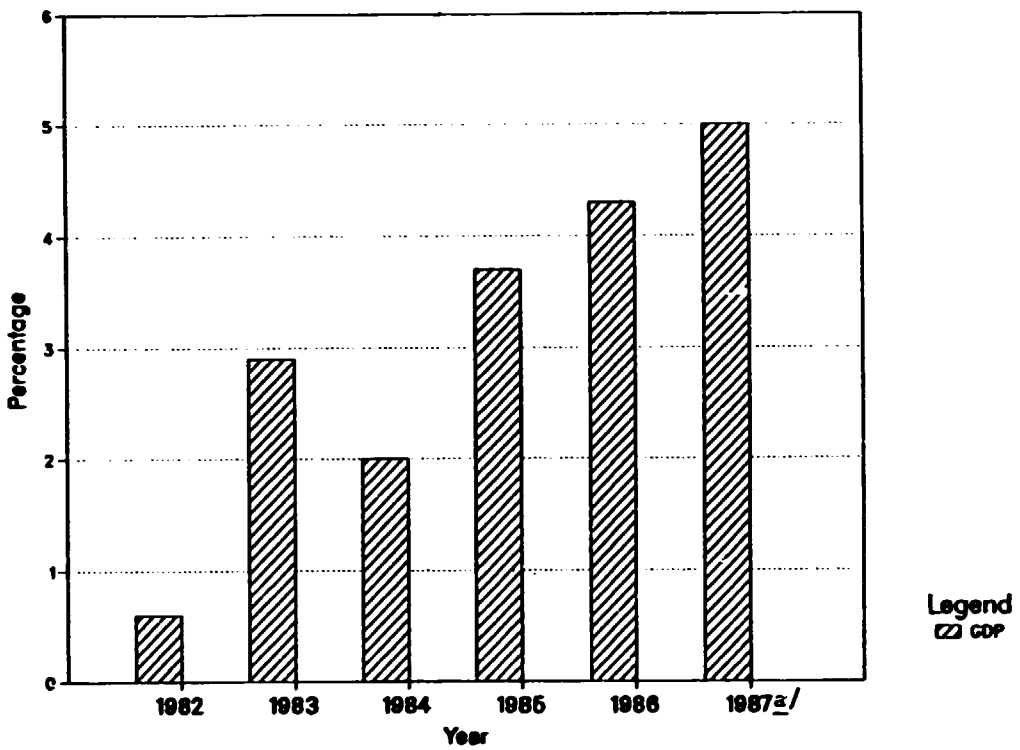
Grenada's manufacturing sector is relatively small. A number of enterprises process local produce, including milling of sugar, distillation of rum, processing of coconut, fish and coffee, canning of jams, jellies, nectars and hot sauce, production of soap, cigarettes, soft drinks, beer, garments, flour, animal feeds and furniture.

Given the small size of the domestic market, the existing structure of production is quite diversified and further expansion along the path of industrial diversification is evidenced by several investment plans by a number of US firms seeking to take advantage of recent fiscal reforms in Grenada. The new investment plans are likely to increase the country's total manufacturing employment from around 1,000 to 2,000 by the end of 1987.

The new manufacturing activities concentrate in light manufacturing, textiles and agro-industry. A wide range of new products are to be produced, including surgical hats for export to the US, bags for optical lens equipment and pharmaceuticals. A new factory space encompassing 180,000 sq.feet is expected to provide the basic infrastructure for new manufacturing activities. There are plans for three textile projects to manufacture shirts, gloves and jeans. New projects in agro-industries are destined for processing fish, fruits and vegetables.

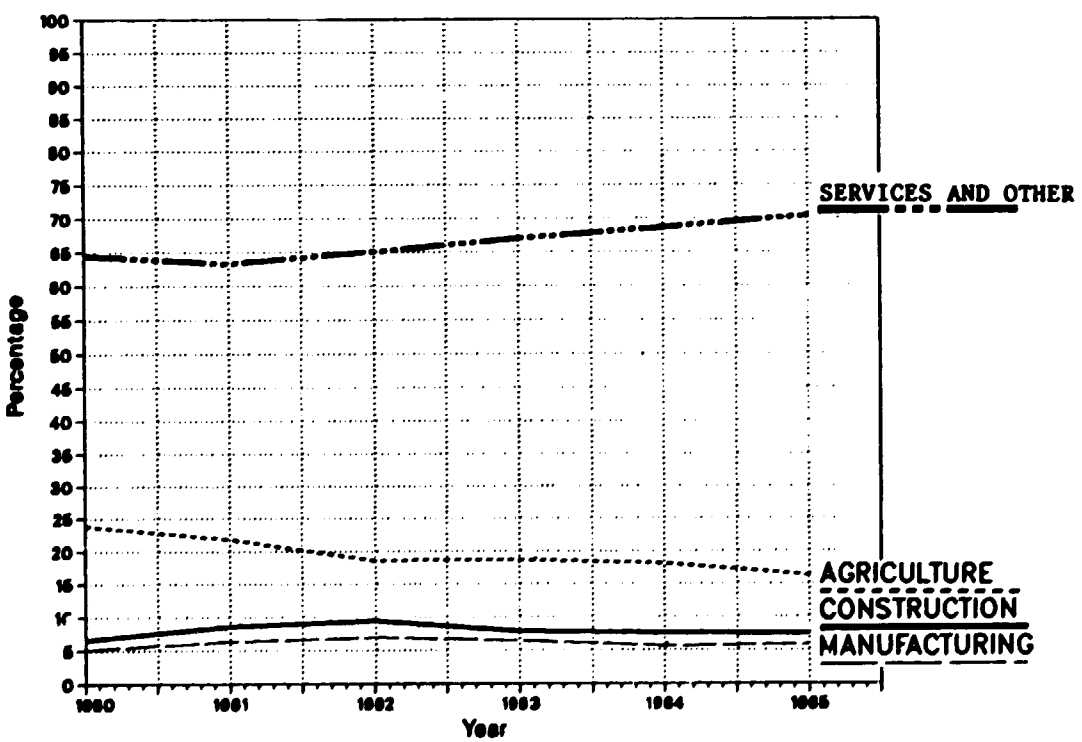
MANUFACTURING TRENDS

REAL GROWTH RATE OF GDP, 1980-1986



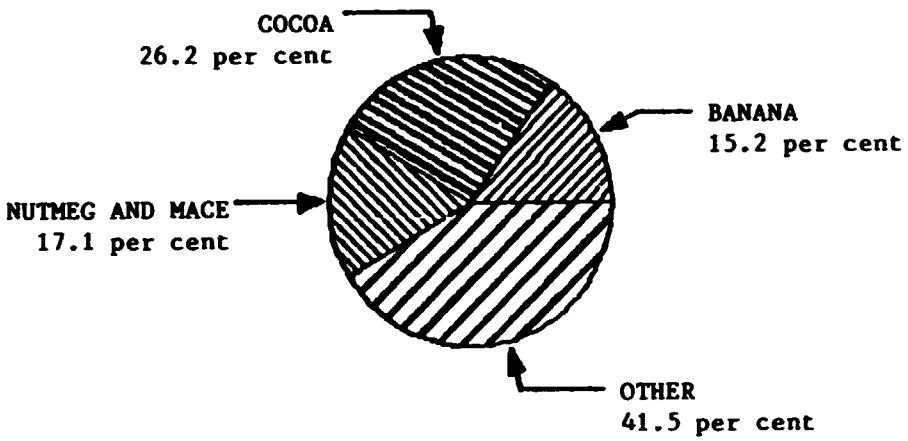
a/ Forecasted GDP growth rate.

DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1980-1985

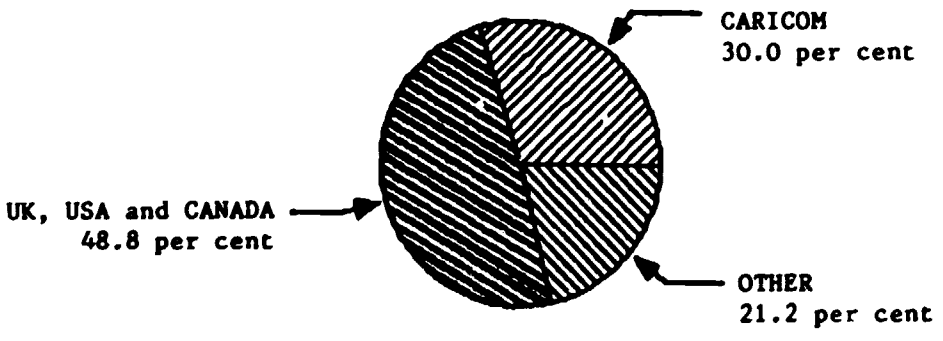


EXPORTS AND IMPORTS

COMPOSITION OF EXPORTS, 1985



ORIGIN OF IMPORTS, 1983



12.2.2 Growth and performance of the manufacturing sector

Following a 33.7 per cent increase in MVA in 1981, growth of manufacturing activities slowed down to 13 per cent in 1982 and declined sharply during 1983 and 1984. Table 12.2 shows that industrial output declined in general during 1983 and 1984, with edible oil, coconut meal, malt and rum falling by 48.4 per cent, 41 per cent, 36 per cent and 29.2 per cent respectively. Poultry feed production recorded a 13.0 per cent increase in 1984, while the production of flour increased by 1.1 per cent. Its fall in output in 1982 was in consequence of the reduced demand for the country's products in Jamaica and Dominica. Data on clothing and furniture show a sharp fall in output in recent years, but their respective values are not significant. The manufacturing sector as a whole recorded a 2 per cent increase in value added in 1985.

12.2.3 Manufacturing problems and prospects

The manufacturing sector in Grenada is expected to grow significantly to contribute towards the achievement of the envisaged GDP growth of around 5 per cent in 1987-89. Although the continuing expansion of the basic economic infrastructure is setting the base for stimulating manufacturing activities, there could be considerable variations in subsectoral growth rates, and the creation of a strong industrial base depends on external participation in industrial investment.

In general there is a heavy emphasis on agriculture, with no equivalent importance attached to agro-industrial processing, packaging and marketing activities. In order to promote exports of agro-industrial products, extensive work will have to be initiated on processing and packaging items like nutmeg, cinnamon and cloves. Underpinning every aspect of the endeavour

Table 12.2 Indicators of manufacturing production, 1982-84

	Unit	1982	1983	1984	Growth rates 1983	Growth rates 1984
Production of major manufacturers						
Flour	tonnes	4,927	4,720	4,772	-4.2	1.1
Poultry feed	tonnes	1,225	1,586	1,789	26.4	12.8
Laundry soap	tonnes	86	26	22	-69.7	-15.4
Coconut meal	tonnes	98	105	62	7.1	-40.9
Rum	'000 gallons	77	72	51	-6.5	-29.2
Beer	'000 gallons	270	247	247	-8.5	-
Malt	'000 gallons	136	103	66	-24.3	-35.9
Edible oil	'000 gallons	318	258	133	-18.9	-48.4
Cigarettes	'000 cartons	99	128	126	29.3	-1.6
Clothing	US $'000	6.7	3.7	1.4	-47.8	-60.0
Furniture	US $'000	0.6	0.4	0.04	-33.3	-90.0

Source: Central Statistical Office.

to spur industrial investment is the need to remove the shortage of skilled manpower which exists at the technical, managerial, administrative and professional levels.

A number of attempts have already been made to revise the incentives for productive activity, including changes in the investment code. A high priority will be to tailor the operations of the institutional infrastructure more closely to the needs of the private sector, so as to reduce regulatory functions to the minimum and to facilitate the process of investment in new or expanded industrial capacity. The skills required for project identification and development in the concerned development agencies will require strengthening, and there is a need for transfer of expertise in agro-industrial technologies which are appropriate to the resource endowment of Grenada and the stage of development of the economy. Initial attempts to diversify the industrial base will inevitably look to domestic or regional markets; however, in the longer term there is a need to encourage and support investment in creating new capacity oriented to extra-regional markets.

12.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

12.3.1 Policies and institutions

A number of fiscal reforms have been introduced which have reduced bureaucracy and simplified the tax system; most direct and indirect taxes have been replaced by a single value added tax. Domestic investment has increased as a result. Investment incentives have been redesigned to appeal in part to the large expatriate Grenadian population overseas; however, foreign investment has so far been slow to materialize. With foreign assistance, major improvements are being made in the physical and industrial infrastructure, including the construction of a substantial number of factories; these are targetted at the US textile industry, which appears to be in process of withdrawing to some extent its labour-intensive operations from the East Asia in favour of the Caribbean with the objective of reducing quota frauds.

As part of its drive for further industrial development, the government established an Industrial Development Corporation in 1985. This agency has responsibility for attracting foreign investors to Grenada and for administering the various incentive schemes introduced by the government, including the waiver of duties and taxes on raw materials and equipment for approved enterprises.

The new government has given priority to the re-organization of the public sector and to agricultural reform. While capital investment in the main has been concentrated on tourism and agriculture, it has set clear objectives for the expansion and diversification of industrial production with the aim of creating additional employment opportunities. The government's aim is to create new light manufacturing and assembly industries which are export-oriented.

12.3.2 Resources for industrial development

Human resources

Grenada has a large supply of both unskilled and semi-skilled labour force. The total work force was estimated to be about 38,000 in 1980. There

is no statutory minimum wage, however, there are minimum wage rates for agricultural workers, clerical and commerical workers, and for builders. Grenada has its own technical and vocational training institute.

Agricultural resources

Grenada's main agricultural crops are bananas, cocoa, nutmeg, mace, sugar cane and a wide variety of fruits and vegetables. Cocoa, which is often grown in combination with other crops, used to be the major export commodity, although exotic fruits became more important in the last few years. Just recently a programme of replacing the aging stock of cocoa trees with higher yielding varieties was launched. Grenada is the world's second largest producer of nutmeg and mace, but has experienced some marketing difficulties following the severance of diplomatic relations with the Eastern block countries after the USA invasion in 1983. Grenada and its two island dependencies, Carriacou and Petit Martinique offer good recreational facilities for tourists, including excellent beaches and yachting facilities.

Energy

Grenada has no major natural sources of energy and is entirely dependent on imported petroleum products for its energy requirments.

Finance

Since the new government took office in 1984, Grenada has relied heavily on official grants of aid for major projects and substantial budgetary assistance has also been received from the USA to help deal with a persistent deficit on current account - running at 30 per cent of GDP in 1985.

12.3.3 The role of technical co-operation in industrial development

There is a need for technical assistance in project assessment and evaluation to assist government with an accurate view of business prospects and potential. For those enterprises which do serve a specific market, there is a need for appropriate training programmes with a strong commerical orientation to help re-orient the management towards market requirements. Technical co-operation has to play a significant role in up-grading skills in key areas. Such training will particularly need to take into account the needs of middle managers and supervisors.

The total resources needed to implement the proposed technical co-operation projects during 1987-91 are estimated at around EC$ 18.0 million, of which EC$ 900,000 is earmarked for the manufacturing sector. The technical co-operation projects during 1987-91 concentrate on industrial parks, small enterprises and agro-industries. UNIDO is involved in a Stone Quarry Development Project, while the ILO is proposing a small industry entrepreneurial development project. Technical assistance inputs could help diversify the production of coconut products and industrial processing of the country's traditional export crops, hitherto exported in unprocessed or semi-processed form. Technical assistance is also required for conducting a survey of both formal and informal manufacturing activities in Grenada.

APPENDIX 12.A

Manufacturing projects seeking external assistance

CONTROL NUMBER: 001188
ISIC: 3311
PROJECT NUMBER: GRN/001/V/84-10 COUNTRY: Grenada
PROJECT TITLE: Sawmill
PRODUCT & CAPACITY: 2,500 cubic metres/year of sawn, dressed and treated lumber
COOPERATION SOUGHT: EQY, LNS, TEX
TOTAL PROJECT COST: US$ 375,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001189
ISIC: 3112
PROJECT NUMBER: GRN/002/V/84-10 COUNTRY: Grenada
PROJECT TITLE: Ice Cream
PRODUCT & CAPACITY: 24,000 gallons/year of ice cream, ice cream cones and ice lollies
COOPERATION SOUGHT: LNS, LIC, SOT
TOTAL PROJECT COST: US$ 345,000 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001242
ISIC: 3113
PROJECT NUMBER: GRN/003/V/84-01 COUNTRY: Grenada
PROJECT TITLE: Canned and Processed Fruit and Vegetables
PRODUCT & CAPACITY: Sauces, condiments, jams, juices, marmalades, fruit drinks, frozen fruit purees, canned soups and vegetables, etc. Processing capacity of 2,500 tons/year
COOPERATION SOUGHT: EQY, LNS, AFM
TOTAL PROJECT COST: US$ 1,000,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850114

CONTROL NUMBER: 001243
ISIC: 3560
PROJECT NUMBER: GRN/004/V/84-10 COUNTRY: Grenada
PROJECT TITLE: Fibreglass Products
PRODUCT & CAPACITY: Fibreglass boats, basins, lavatory bowls, etc. Capacity to be determined with foreign partner
COOPERATION SOUGHT: EQY, LNS, SOT, AFM
TOTAL PROJECT COST: n/a PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850114

Manufacturing projects seeking external assistance
(Continued)

CONTROL NUMBER: 001244
ISIC: 3851
PROJECT NUMBER: GRN/005/V/84-10 COUNTRY: Grenada
PROJECT TITLE: Sanitary Napkins
PRODUCT & CAPACITY: Capacity to be determined with foreign partner
COOPERATION SOUGHT: EQY, LNS, SOT, AFM
TOTAL PROJECT COST: n/a PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850114

CONTROL NUMBER: 001241
ISIC: 3903
PROJECT NUMBER: GRN/006/V/84-10 COUNTRY: Grenada
PROJECT TITLE: Sporting Goods and Equipment
PRODUCT & CAPACITY: Tennis rackets and balls, baseball bats and balls, etc.
Capacity to be determined with foreign partner
COOPERATION SOUGHT: EQY, LNS, SOT, AFM
TOTAL PROJECT COST: n/a PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850114

APPENDIX 12.B

Leading companies by sector, 1986

Agriculture

- Grenada Cooperative Nutmeg Association
- Grenada Cocoa Association
- Grenada Banana Cooperative Society
- Geest Industries (WI)

Manufacturing and trade

- George F Huggins & Co (Grenada)
- Jonas Browne & Hubbard (Grenada)
- McIntyre Bros
- Grenada Breweries
- Renwick & Thompson Co
- Bryden & Minors
- W E Julien & Co
- L A Purcell & Co
- Deco Industries
- E Woodroffe
- R M Bhola & Sons

Tourism

- Ramada Inn (formerly Grenada Beach Hotel)
- Spice Island Inn
- Calabash Hotel
- Secret Harbour

Other

- Grenada Electricity Services
- Grenada Telephone Co
- Cable & Wireless (WI)

Source: South, April 1986.

APPENDIX 12.C

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

GRENADA

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/AGRO	(31.7.C)	DP/GRN/81/002	Preparatory mission for estblishment of agro-industrial plant
IO/CHEM	(30.4.01)	IS/GRN/74/017	Production of common salt and iodine

2. The approved and/or operational projects

DP/GRN/85/005	IO/IIS/INFR	J12103	Feasibility and planning study of industrial estates

13
ANTIGUA AND BARBUDA

13.1. THE ECONOMY OF ANTIGUA AND BARBUDA

13.1.1 Recent economic trends

Stimulated by a strong growth in tourism, which contributes over 40 per cent of GDP (the highest in the region), the economy of Antigua and Barbuda continued to perform well in recent years, with real GDP growing at 6.4 per cent, 6.5 per cent and 6.7 per cent in 1983, 1984 and 1985 respectively. The projected growth rates for 1986 and 1987 exceeded 6 per cent. This commendable performance compares with a fall in real GDP by 1.3 per cent in 1982 following a healthy pace of expansion since 1976.

Between 1976 and 1980 Antigua's economy grew in real terms by an average of 8 per cent per annum. This resulted from steadily increasing numbers of tourists, and the consequential construction of hotels and other tourism-related facilities, together with expansion of enclave type manufacturing. At the beginning of the 1980s, the industrialized countries experienced recession and the number of visitors to Antigua declined, with a consequential slackening of growth in GDP to 3.9 per cent in 1981, compared with 8.0 per cent in 1980. Since then growth in the number of visitors has continued at a faster rate.

Over the past three years, the performance of different sectors of the economy has been uneven. Following increased development of cotton and winter vegetables by local farmers and foreign investors, the agricultural sector rebounded well from the drought of 1984, achieving a 13.5 per cent increase in output in 1985 compared with negative growth rates experienced in the preceding three years. The manufacturing sector, on the other hand, stagnated due primarily to trade difficulties within CARICOM, particularly Trinidad and Tobago.

During the period up to and immediately after independence in 1981, total investment rose steadily as a proportion of GDP, with the private sector dominating during the earlier periods of tourism driven expansion. Because of the openness of the economy, domestic price movements tend to follow international trends very closely; so in 1979 and 1980 inflation rose to almost 20 per cent, and subsequently fell back to an annual average of around 8 per cent during 1980-86. Since independence, the government's revenue position has deteriorated, partly because of fluctuations in revenue - arising from Antigua's dependence entirely on indirect taxes on imports and consumption. Current expenditures have consistently outpaced revenue growth, leading to the build-up of arrears and growing deficits on current account. Capital expenditure has fluctuated much more, reflecting implementation of very large projects.

A massive increase in public sector investment in 1986 and 1987 coupled with the associated increase in external debt is likely to impose a significant burden on fiscal resources, leading to a fiscal gap of about EC $287.2 million over the period 1986-1991. It also indicates the need for significant rescheduling of external obligations as debt-servicing obligations alone would amount to EC $267 milli during 1987-91. To ward off the situation, substantial cuts in public expenditure have become increasingly likely. Greater attention is to be directed towards reducing the country's single sector dependence.

13.1.2 Economic structure

Antigua and Barbuda has a population of 79,000, growing at 1.3 per cent per year. The economy is primarily service-oriented and very open. In 1983 Antigua introduced legislation to allow the development of offshore banking activities, which have commenced on a limited scale; however, tourism remains the most important sector of the economy - effectively determining the performance of the economy as a whole.

Antigua has the advantage of being served directly by long haul, inter-continental flights, which allow it to serve both North American and European markets - the precise share at any one time varying according to the prevailing purchasing power of their currencies. Directly and indirectly tourism is responsible for 40 per cent of GDP and employs over 50 per cent of the labour force. However, estimated foreign exchange leakage from tourism earnings is substantial, and there are few linkages between tourism and other sectors of the economy. An accelerated expansion of tourist accommodation and related infrastructure was financed by a series of bilateral and multilateral loans in 1982-83, which substantially increased Antigua's external debt to US $60 million in 1983.

Table 13.1 shows the sectoral origin of GDP during 1980-85. The Table vividly depicts the gradual decline in the share of agriculture in GDP from 7.3 per cent in 1981 to 4.7 per cent in 1984, with marginal decline in each successive year. However, there was a marginal increase in its share of GDP in 1985 following a recovery after the drought in 1984. The agricultural sector in Antigua has been producing well below its potential in recent years. At least 50 per cent of cultivable land, once used for growing sugar, has been abandoned or is underutilized, and as yet no systematic plan exists for its development. The growth of small-holder farming is very slow. An attempt was made in 1982 to revive the production of sugar for domestic consumption with a trial planting of 350 ha and the refurbishment of the sugar factory, inoperative since the collapse of the sugar industry in Antigua in 1972. Lack of sufficient and constant supply of water seriously inhibit crop cultivation and intensive livestock production. The threat of water shortages in Antigua is endemic, and the onset of draught is not uncommon.

Table 13.1 Distribution of GDP by sector of origin, 1980-85
(percentage)

Sector	1980	1981	1982	1983	1984	1985
Agriculture, fishing and forestry	7.3	6.3	6.0	5.6	4.7	5.0
Manufacturing	6.0	7.1	7.2	6.9	6.5	6.1
Construction	9.1	9.6	6.0	5.2	5.1	5.4
Wholesale/Retail	10.6	10.5	11.1	10.6	10.5	10.4
Hotel/Restaurant	13.7	13.2	13.4	14.9	17.7	18.4
Government services	11.6	11.2	11.5	11.0	10.6	9.9
Other	41.7	42.1	44.8	45.8	44.9	44.8

Source: Ministry of Finance, Statistical Division; OECS Economic Affairs Secretariat.

While the local market for fresh vegetables is largely supplied by imports, the opportunities for import substitution are limited by the length of the local growing season and the need to offer a reliable supply. One further constraint is the cost of labour; generally, in spite of the high unemployment rate, labour is in short supply, because there is a local prejudice against agricultural labour, which does not compare with the local tourist industry in its wage levels.

Further development of the agricultural sector depends on improving the financial situation of the two key development agencies to allow the proper supply of inputs when they are required and the improved marketing of agricultural produce, so as to avoid the losses so often incurred in the past. The marketing problem is a complex one, in part because of the small size and fragmented state of the domestic market, and also because of the high cost and practical difficulties of exporting. Inadequate processing and refrigeration facilities make it very difficult to deal with gluts of produce, while local farmers find it hard to secure orders from major local buyers, who tend to rely on bulk imports and who insist on consistent, high quality supplies - conditions which local farmers find it hard to match.

The manufacturing sector recorded very little growth since 1981, leading to four consecutive years of declining shares of GDP. The main contribution of the manufacturing sector comes from the enclave-type industries catering to the extra-regional markets, particularly the United States. The sector is also highly dependent on sales within the CARICOM market, and as a result, difficulties in this market greatly affected production.

Having suffered a 7.7 per cent decline in 1983, construction activities grew by 4.6 per cent in 1984. Its continued expansion in 1985 reversed the declining trend in its share of GDP Most of the contruction activity during 1984 and 1985 was in the residential subsector. A significant increase in the contribution of hotel and restaurants to GDP in 1984 and 1985 partly reflected the increasing number of tourist arrivals which helped the economy sustain a high pace of growth.

The balance of payments position has steadily deteriorated during the early 1980s. This has primarily been the result of sharply increased imports of foodstuffs, beverages and fuel, together with imports of capital goods for expansion of domestically produced goods, including garments, mattresses, stoves and refrigerators, and of re-exports; of late Antigua has developed something of a role as regional distributor of manufactured goods and machinery and transport equipment, altough this function has been constrained by port congestion.

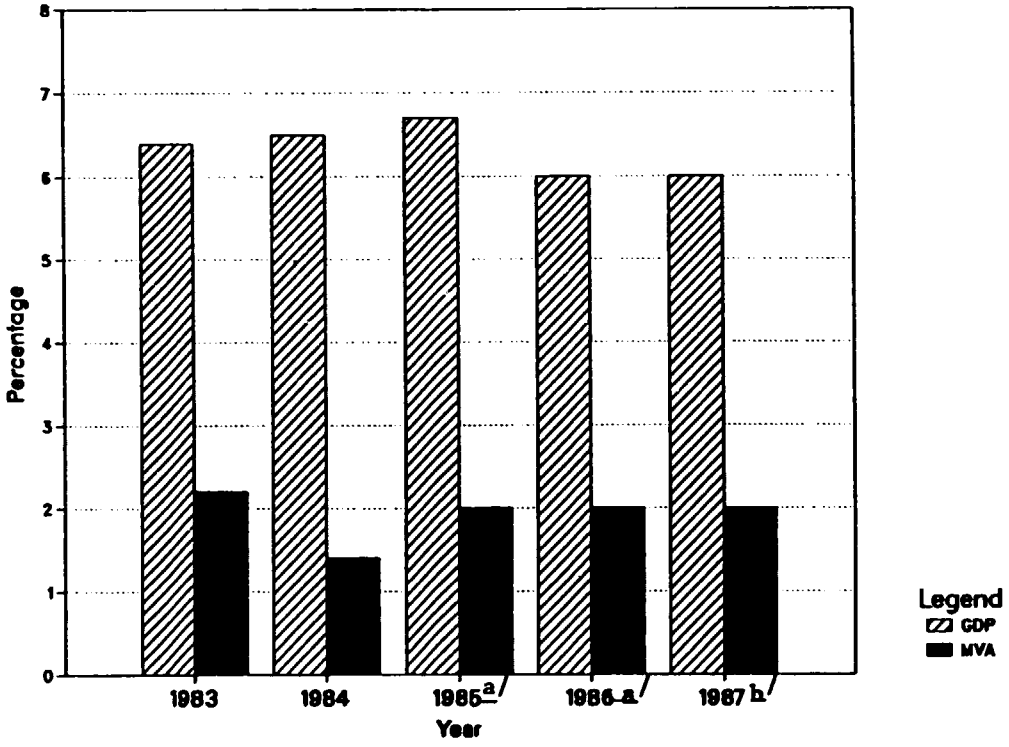
13.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

13.2.1 Overview of the manufacturing sector

The range of products manufactured in Antigua is limited, comprising garments, hosiery, biscuits, stoves, galvanized sheeting, refrigerators, paint, furniture, mattresses and paper products. In 1981 75 per cent of manufactured exports were sent to CARICOM markets. Ownership of the majority of industrial enterprises is foreign and most activities are largely dependent on imported raw materials and intermediate inputs; in some cases there is insufficient local value added to satisfy rules of origin criteria for export to CARICOM.

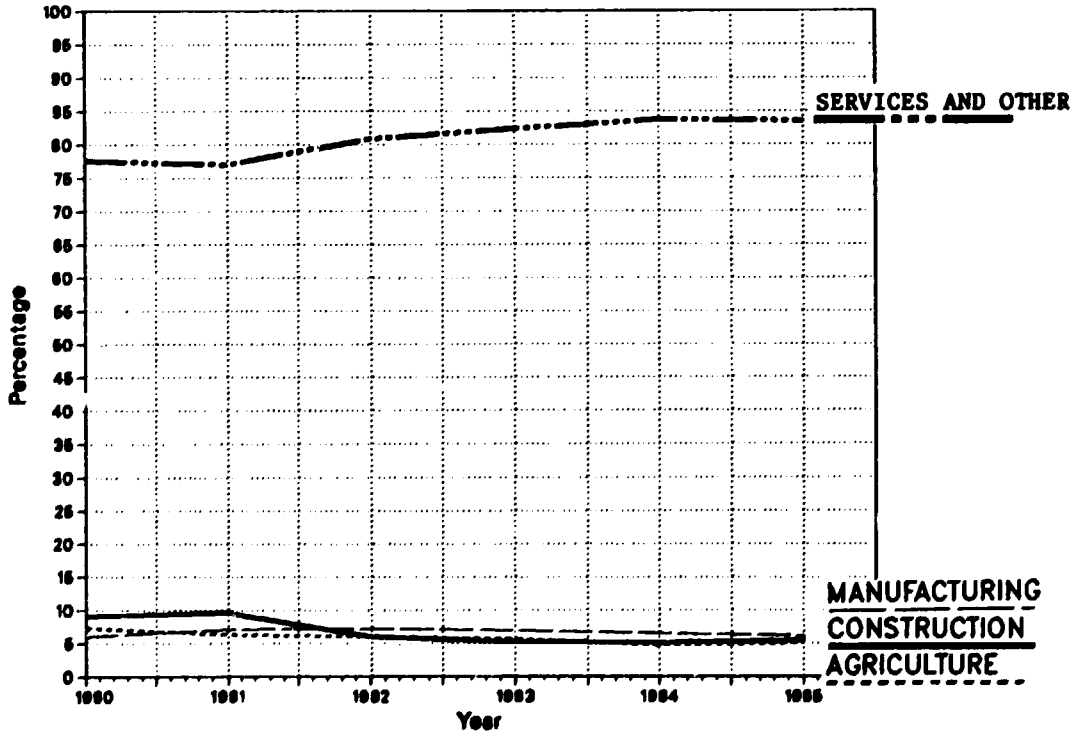
MANUFACTURING TRENDS

REAL GROWTH RATES OF GDP AND MVA, 1983-1987



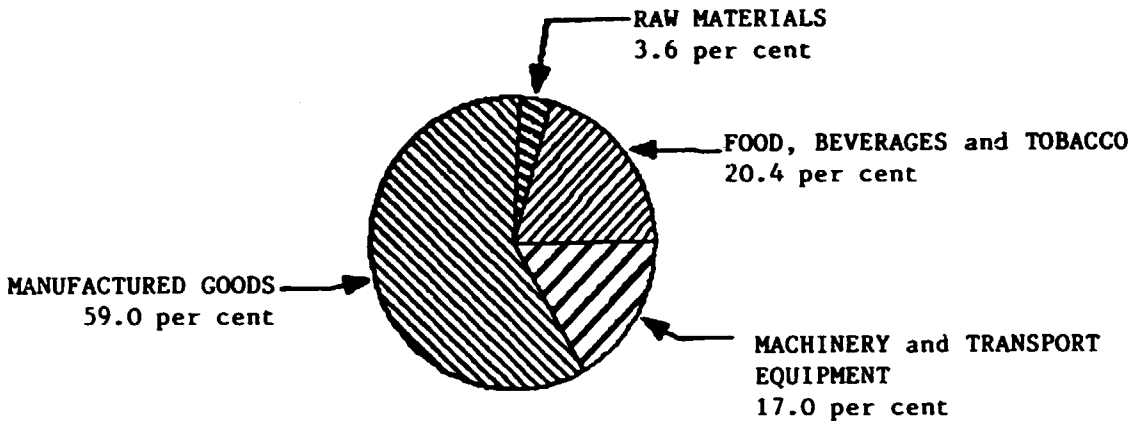
a/ Estimates. b/ Projections.

DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1980-1985

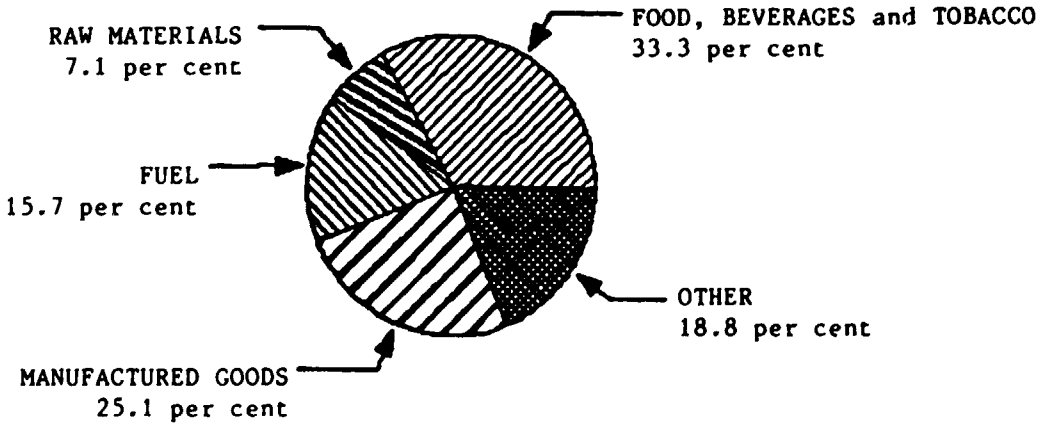


EXPORTS AND IMPORTS

COMPOSITION OF EXPORTS, 1983



COMPOSITION OF IMPORTS, 1983



As the present trade difficulties within CARICOM inhibited the expansion of manufacturing activities, enclave-type manufactures destined for extra-regional markets gained importance in recent years. During 1984 a biscuit factory ceased to exist, while three enclave-type manufacturing enterprises, including electronics-assembly and galvanized metal sheeting production, commenced operations. In 1986 there were increasing number of enquiries from potential enclave manufacturers for establishing factories in Antigua and Barbuda.

13.2.2 Growth and performance

The manufacturing sector in Antigua and Barbuda grew at an average annual rate of 19 per cent during 1977-81, with exceptionally high growth rates of 18.8 per cent and 21.9 per cent recorded in 1980 and 1981 respectively. Manufacturing value added, measured in constant 1977 prices, registered a zero growth rate in 1982. However, it grew by 2.2 per cent in 1983 and 1.4 per cent in 1984. According to recent estimates, the manufacturing sector stagnated once again in 1985 and recorded a 2.0 per cent increase in value added. Real MVA growth rate for 1987 is projected at 2.0 per cent.

During 1980-81 Antigua saw its oil refinery become operational again after six years' of inactivity. Its capaicty was 18,000 b/d of petroleum products - half being bunker oil and the remainder being gasoline, diesel, jet fuel, kerosene and liquified petroleum gas. Attempts were made to secure crude at preferential rates from Venezuela and Mexico on behalf of the OECS, but this initiative came to nought. In 1982 the refinery closed, having lost EC $44 million under the impact of the world economic recession, mounting surpluses of oil and oil products, and falling prices with which the refinery could not compete. Since then the refinery complex has been used only for storage and distribution of oil products.

Table 13.2 presents the physical output volumes of major manufactures in Antigua and Barbuda. Given the limited size of the domestic market and the country's small and thriving manufacturing sector, output from each subsector of manufacturing is to be viewed in relative terms. The Table shows that the index of export manufacturing production (1982=100) fell to 96 in 1983. A striking feature in the production trend was the substantial increase in the production of bedding pieces from 3,440 units to 14,000 in 1984. The Table does not permit an analysis of subsectoral production trends as available production figures for most subsectors are restricted to the years 1982 and 1983 only. It appears that growth rates declined in many subsectors as the easier import substitution opportunities were fully exploited by the year 1982 and a large proportion of growth had to come from export-oriented production.

Manufactured exports have remained static since 1983 largely as a result of curtailment of oil refining activities. In the wake of trade difficulties encountered within the region, many manufacturers are trying to penetrate extra-regional markets, but progress has been slow.

Table 13.2 Indicators of manufacturing production, 1982-1984

	Unit	1982	1983	1984
Index of export manufacturing Production (1982=100)		100	96	...
Rum	'000 pf. gal.	159	133	149
Soft drinks	'000 cases	216	...	271
Garments	'000 dzs	476	570	...
Outwear	'000 pieces	327	279	...
Bedding	pieces	3,440	12,000	14,000
Plastics	'000 kg.	196	61	84
Paints	'000 US gals.	106	100	96
Tyres	units	2,537	...	...
Stoves	units	3,646	3,800	...
Refrigerators	units	2,093	1,700	...
Freezers	units	360	200	...
Hot plates	units	2,290	1,100	...
Batteries	units	500	...	...
Toilet paper	'000 rolls	...	...	1,425

Source: Statistics Division.

13.2.3 Manufacturing problems and prospects

While a high pace of overall economic growth is sustained by an unprecendented increase in tourist income in recent years, manufacturing activities in Antigua and Barbuda are constrained by the difficulties in the CARICOM region. Many factories operate well below capacity and only a few attempt to penetrate extra-regional markets. Although the medium-term economic policy framework is dominated by fiscal management issues, attention is being focused on strengthening the industrial promotion function.

In the light of the government's declared policy of attracting overseas investors to create additional export-oriented industrial capacity, and the questions which have been raised concerning the de facto bias of existing incentives, two areas need careful scrutiny. First, the area of industrial policy itself, where there is a need for systematic review and development of a consistent set of policies which are mutually reinforcing. The prime tasks are to analyse the existing mix of policies and clearly relate cause and effect in their success or failure, before moving on to present government with a clear choice of policy options designed to achieve its declared objectives.

Second, the area of policy implementation and the instruments/agencies established by the government to fulfill its objectives in the field of industrial and investment promotion which is intensely competitive. There is no room for a less than professional approach if the target audience is that of the established industrial producers of North America and Europe. The overriding priority is for training and acquisition of relevant practical experience in project identification and appraisal and in promotional/ marketing techniques. Without an effective means of presenting Antigua's industrial incentive schemes to potential investors, there can be little chance of attracting substantial foreign investment against the competition from elsewhere in the Caribbean.

13.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

13.3.1 Policies and institutions

In the government of Antigua'a Plan of Action for the period 1982 to 1986, the overall objective was to raise industrial employment by 1,250, and to raise its share of GDP to 17 per cent by 1984. The priority is to encourage investment in capacity oriented to markets outside CARICOM and to attract a much larger amount of foreign investment to Antigua.

The Fiscal Incentives Act of 1975 forms the core of the government's industrial policy, which aims to attract substantial overseas investment to help diversify Antigua's industrial base and to provide additional employment opportunities. In 1982 the government established an Industrial Development Authority with responsibility for industrial promotion, industrial planning, and investment incentives. At the same time it was also decided to expand the number of advance factory shells built for new enterprises.

The present incentive structure is biased away from exporting outside CARICOM and towards activities with a low value added locally. In order to reverse this bias it will be necessary to reduce the high level of protection given to domestic producers and to eliminate the tariff exemptions on imported raw materials and intermediates.

13.3.2 Resources for industrial development

Human resources

Antigua's labour force was estimated at 23,000 in 1981, with unemployment running at around 20 per cent. The public sector employs approximately 25 per cent of the entire work force, having adopted the policy of giving employment to workers laid off during recession.

Agricultural resources

Antigua has very few indigenous raw materials, and there seems to have been little progress in diversifying agricultural output in recent years to form the basis for agro-processing activities. Antigua has no major forest or mineral resources, and is almost entirely dependent on imported raw materials and intermediate inputs for many manufacturing activities.

Energy

Antigua has no natural sources of energy, and its refining capacity, itself dependent on imported crude oil, was closed down in 1982.

Finance

The Antigua and Barbuda Development Bank was established in 1974 to on-lend funds provided by the Caribbean Development Bank to industrial and agricultural projects. The performance of this institution has been weak with an accumulation of arrears and debts.

13.3.3 The role of technical co-operation in industrial development

Until now major attention in the field of technical co-operation was directed towards agriculture, education and tourism. This emphasis seems to remain unchanged in the proposed technical assistance programme. During 1982-86 UNDP technical co-operation grants to industry amounted to US $250,000, which represented only 11.9 per cent of total assistance provided to Antigua and Barbuda.

External technical assistance to industry could focus on an inventory of agricultural and human technical and financial resources and with a study of possible uses of the country's agricultural resources for industrial processing. In the face of new priorities attached to enclave-type industries, there is a need for a survey of the major external markets with a view to identifying products which are in demand and have strong growth prospects.

APPENDIX 13.A

Manufacturing projects seeking external assistance

CONTROL NUMBER: 001154
ISIC: 3320
PROJECT NUMBER: ANT/001/V/84-10 COUNTRY: Antigua
PROJECT TITLE: Furniture, Bedding and Linen
PRODUCT & CAPACITY: Wooden bedroom, dining room and living room furniture
Mattresses
Bedroom, bathroom and dining room linen
Sales/leasing volume of US$ 4 million within 2.5 years
COOPERATION SOUGHT: JVE, EQY, LNS
TOTAL PROJECT COST: n/a PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Suspended AS ON (DATE): 850322

CONTROL NUMBER: 001155
ISIC: 3320
PROJECT NUMBER: ANT/002/V/84-10 COUNTRY: Antigua
PROJECT TITLE: Sofas (Expansion)
PRODUCT & CAPACITY: Launching of a new sofa model (for export)
COOPERATION SOUGHT: LNS
TOTAL PROJECT COST: US$ 1,000,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 841207

CONTROL NUMBER: 001156
ISIC: 3832
PROJECT NUMBER: ANT/003/V/84-10 COUNTRY: Antigua
PROJECT TITLE: Electronic Component Assembly Plant
PRODUCT & CAPACITY: Electronic components, coils, transformers, printed circuit boards and power supplies
COOPERATION SOUGHT: LNS, EQS, AFM, MAX, TEX, TRX
TOTAL PROJECT COST: US$ 200,000 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 841207

CONTROL NUMBER: 001157
ISIC: 3320
PROJECT NUMBER: ANT/004/V/84-10 COUNTRY: Antigua
PROJECT TITLE: Wooden Household and Hotel Furniture
PRODUCT & CAPACITY: Chests of drawers, dressing tables, bed-heads, night-tables, bookcases, wall units, sideboards, hutches, cabinets
Present capacity: 4,000 square feet of floor space
COOPERATION SOUGHT: JVE, EQY, LNS, AFM, MAX, TEX
TOTAL PROJECT COST: US$ 120,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 841207

CONTROL NUMBER: 001158
ISIC: 3320
PROJECT NUMBER: ANT/005/V/84-10 COUNTRY: Antigua
PROJECT TITLE: Wooden Furniture (Expansion)
PRODUCT & CAPACITY: Wooden patio, office, household and school furniture
Current floor space of 6,320 square feet; to be increased by 3,680 square feet
COOPERATION SOUGHT: EQY, LIC, SOT, AFM
TOTAL PROJECT COST: US$ 251,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 841207

APPENDIX 13.B

Leading companies by sector, 1986

Agriculture

Antigua Sugar Factory

Manufacturing and trade

West Indies Oil Co
G W Bennett, Bryson & Co
Joseph Dew (Division of Dantzler, WI)
John & Francis Anjo
A S Bryden (Antigua)
F E Hadeed & Sons
Hutchinson (Antigua)
E Alex Benjamin - Benjies
Sealy Mattress
Antigua Distillery
Antigua Slipway

Tourism

Club St. James
Curtain Bluff
Half Moon Bay Hotel
Halcyon Cove Beach Resort
Hawksbill Beach Hotel
Anchorage Hotel
Jolly Beach Hotel

Source: South, April 1986.

APPENDIX 13.C

THE COMPLETED TECHNICAL CO-OPERATION PROJECTS OF UNIDO

ANTIGUA

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	project Title
IO/FEAS	(00.0)	DP/ANT/73/001	Industrial promotion and management consultancy unit
IO/AGRO	(31.7.C)	DP/ANT/78/003	Food preservation and nutrition

14

DOMINICA

14.1. THE ECONOMY OF DOMINICA

14.1.1 Recent economic trends

Recent economic activities in Dominica have been characterized by rehabilitation measures carried out in the wake of the damage caused by hurricanes in 1979 and 1980. A substantial flow of external assistance led to an unusually high growth rate of 11.3 per cent in the immediate post-disaster period. After initial gains, however, the rate of growth of real GDP slackened to more a normal rate of growth of around 3 per cent during 1982-1985. The sustained pace of economic activity experienced until 1984 was expected to taper off in 1986 as a major road construction programme ended in that year. Despite the tapering off in the road reconstruction and rehabilitation programme, real GDP grew by 4 per cent in 1986, compared with 1.9 per cent in 1985.

A strong upward trend in banana production, which accounts for over 40 per cent of Dominica's exports, is expected to continue in 1987. Since 1981 recovery of domestic production has helped to reduce the previously high levels of inflation and unemployment. More recently the balance of payments deteriorated through increased imports and a lack of growth of exports on account of trading restrictions cutting back exports to Jamaica and to Trinidad and Tobago.

The 1985/86 budget reflected the government's continued pursuit of its tight fiscal policy and its goal of savings. There has been significant improvements in domestic savings from -3 per cent of gross domestic product (GDP) in 1982 to +25 per cent in 1983. Although the ratio of gross domestic investment to GDP fell from 35 per cent during 1979-82 to 29 per cent in recent years, the reliance on external sources for investment remains high.

The IMF has approved the use of Fund resources totalling the equivalent of SDR 1,880,000 for Dominica under the Structural Adjustment Facility over the next three years. The economic programme for the three-year period ending in 1989 is designed to achieve an annual growth of real GDP of around 4 per cent in the context of policies that would increase private investment, exports, and domestic savings, strengthen the country's fiscal and balance of payments positions, contain the external debt burden within manageable limits, and build up international resources. The private sector is expected to play a leading role in the expansion of output and employment, while the public sector will concentrate on the creation of infrastructural facilities needed for the estbalishment of a strong economic base.

14.1.2 Economic structure

Dominica's population was estimated at 78,000 in 1986. The country's GNP per capita was around US $970 in 1983. Dominica possess limited natural resources and is prone to natural disasters of hurricane and flood. Its small size and rugged topography make for high costs of administration, provision of public services, and infrastructural development. Dominica has no major mineral or energy resources, but under the tropical climate the agricultural sector has become the dominant generator of export earnings, producing bananas, citrus and coconuts among others.

The agricultural sector accounts for around 30 per cent of GDP (Table 14.1), 55 per cent of export earnings, and 60 per cent of the total

labour force. The production of bananas is the most important economic activity in the island, using more than a quarter of agricultural land, accounting for more than 40 per cent of merchandise exports and employing 40 per cent of the total labour force. Environmental conditions in Dominica tend to depress yields, and low productivity has resulted from erratic availability of fertilizers, poor husbandry and pest control. Limes, grapefruit and oranges are the main citurs fruits grown in Dominica, accounting for about 7 per cent of the value of agricultural production.

Table 14.1 Distribution of GDP by sector of origin, 1982-85
(in constant 1977 EC $million)

	1982	1983	1984	1985a/
Primary sector	30.4	30.6	32.5	32.2
of which: Agriculture	29.6	29.8	31.5	31.2
Other	0.8	0.8	1.0	1.0
Secondary sector	19.2	19.0	22.4	21.7
of which: Manufacturing	8.6	8.7	8.7	9.5
Electricity and water	1.8	2.0	2.1	2.2
Construction	8.8	8.3	11.6	10.0
Tertiary sector	54.5	56.6	57.8	60.2
of which: Wholesale and retail trade	12.0	11.8	12.0	12.8
Hotels and restaurants	1.0	1.1	1.1	1.1
Transport and communication	6.2	7.9	8.2	9.1
Banks and insurance, real estate and housing, other services	12.7	12.9	13.1	13.2
Government services	22.6	22.9	23.4	24.0
Sub-total	104.1	106,2	112.7	114.1
Less imputed services charges	3.6	3.6	3.8	3.9
Total	100.5	102.6	108.9	110.2
Growth rate	2.4	2.1	6.1	1.2
GDP at current prices	163.6	178.4	197.9	213.9
GDP deflator	162.9	173.9	181.8	194.2

Source: OECS Economic Affairs Secretariat.

a/ Provisional.

The share of the manufacturing sector in GDP fell marginally in 1983 and 1984 and rose to 8.2 per cent in 1985 which was equal to its 1982 level. However, it declined marginally to 8.5 per cent in 1984 as a result of a slight decline in the growth of the manufacturing sector. Manufacturing activities remain constrained by difficulties within the CARICOM region.

Domestic exports declined by 7.1 per cent in 1985, while imports registered a 28.3 per cent increase. The large increase in imports was principally the result of an increase in machinery and equipment for the road project, with food and manufactured goods being the other major contributors. Domestic export earnings declined during 1984 as a result of the decline in earnings from the two major foreign exchange earners, namely bananas and soap. Banana export price is denominated in pound sterling.

The government is actively seeking to exploit the productive potential of the agricultural sector so as to generate increased output and exports, while at the same time creating additional employment opportunities. Attempts to develop the sector's output have included improved land tenure policies, the upgrading of extension services and of marketing arrangements. The recent trading restrictions within CARICOM have made it imperative that Dominica should seek to penetrate extra-regional markets and develop additional agro-processing activities.

14.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

14.2.1 Overview of the manufacturing sector

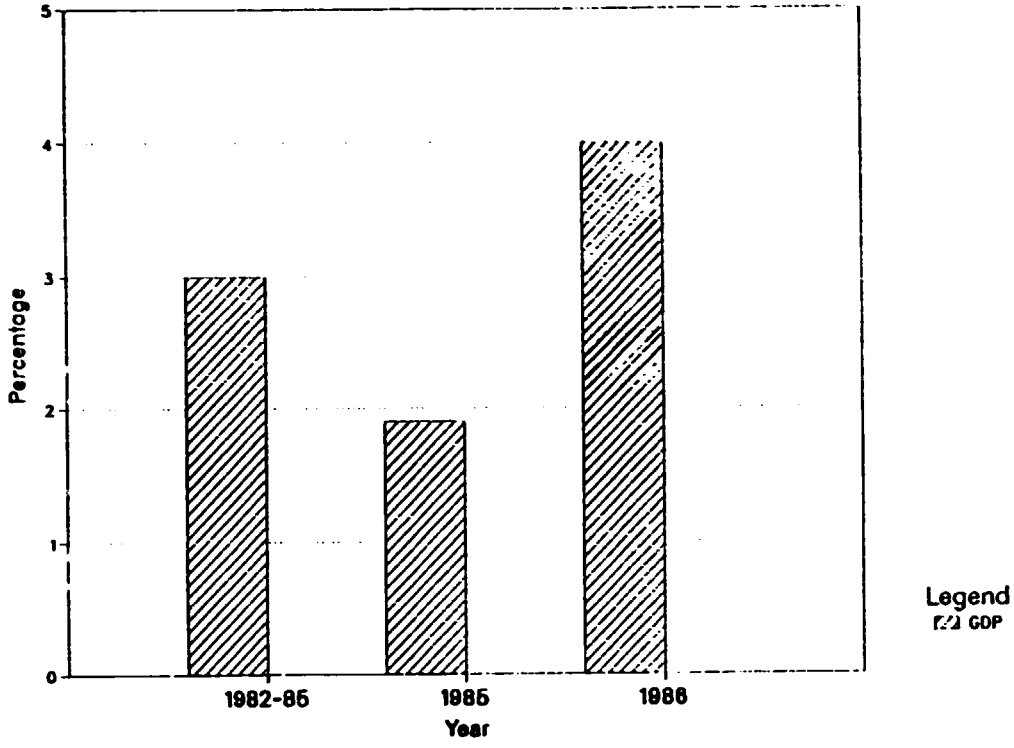
The manufacture of coconut products accounts for 75 per cent to 80 per cent of total manufacturing output. Unlike other OECS islands development of manufacturing in Dominica has so far been based mainly on the processing of natural resources and agricultural produce, often with the help of external resources. The major innovation in the industrial sector in recent years has been the growth of enclave-type and assembly industries, to supplement the established processing of coconut and citrus based products. Other agro-based industries include the canning of fruit juices, production of animal feed, dairy products, pepper sauces, bay oil and vanilla extraction. Other light industries include production of garments, cement, timber products, paints, galvanized metal, soft drinks and beer, local handicrafts, processing of meat, and the bottling of spring water. There are two industrial estates containing a number of light assembly industries; some 6,500 sq.m. of factory space have been constructed, with a further 3,700 under construction, as demand for the smaller factory units has exceeded supply.

14.2.2 Growth and performance of the manufacturing sector

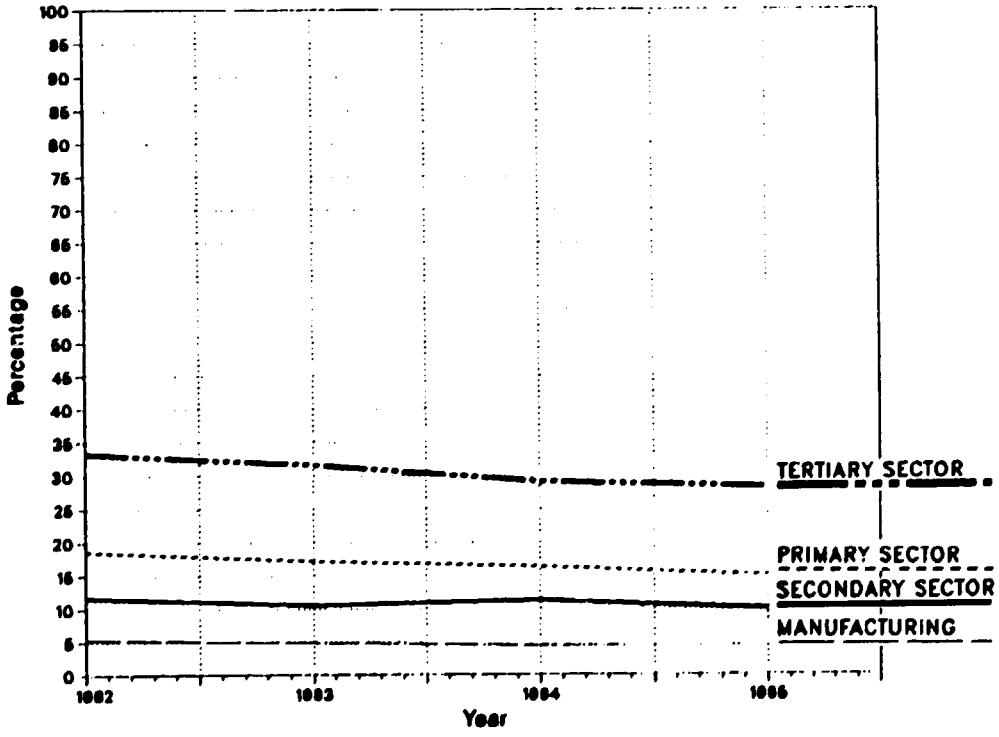
In 1980 and 1981 manufacturing output grew substantially at a rate of about 20 per cent per annum. However, this growth slowed in the two subsequent years. Table 14.2 shows that almost all subsectors of manufacturing suffered negative growth rates in 1984. Industries engaged in the production of coconut products experienced severe difficulties in exporting within the CARICOM region in 1984, and mainly as a result of this the manufacturing output declined by 1 per cent in 1984 and 1985 respectively. Output and employment in the garment industry also declined in recent years. The impact of the poor performance in these industries on the manufacturing sector was offset to a large extent by the increased output of paints and galvanized sheets. Some new industries including candle production and bottling of spring water also commenced operation in 1984.

MANUFACTURING TRENDS

REAL GROWTH RATE OF GDP, 1982-1986

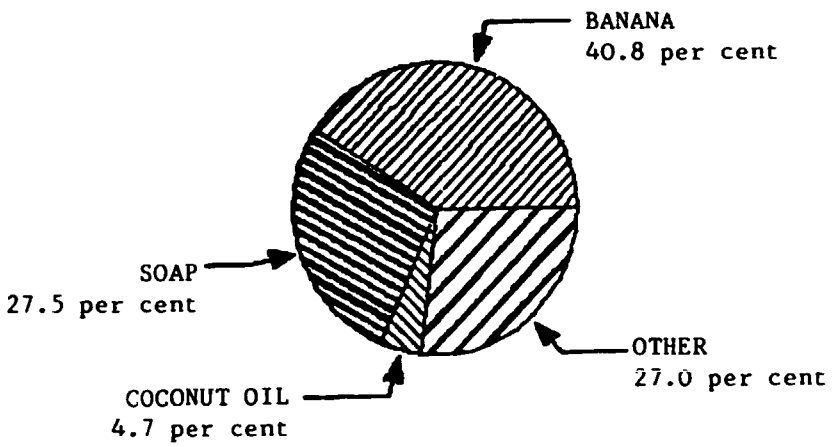


DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1982-1985



EXPORTS AND IMPORTS

COMPOSITION OF EXPORTS, 1983



COMPOSITION OF IMPORTS, 1983

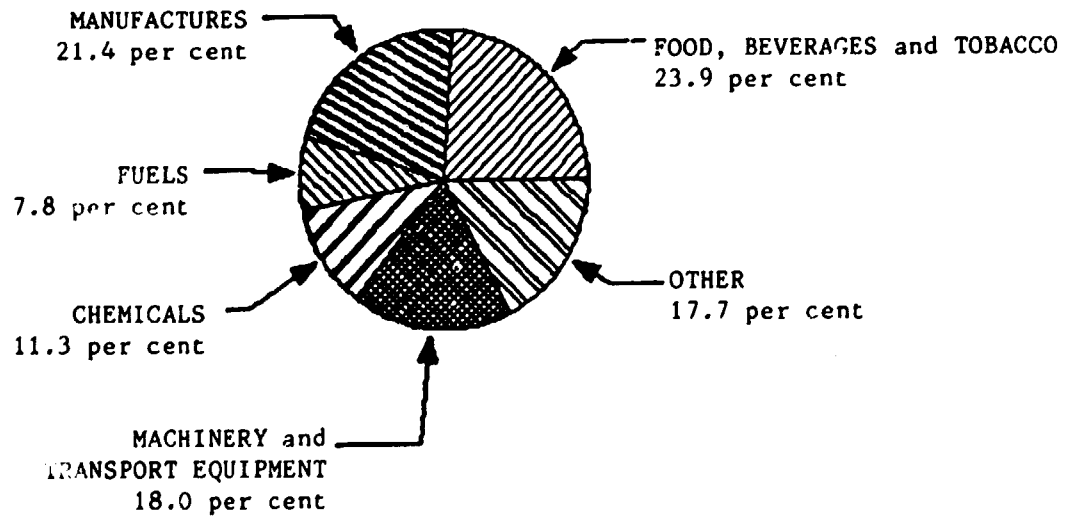


Table 14.2 Indicators of manufacturing production, 1982-84

	Unit	1982	1983	1984	Growth rates (per cent) 1983	1984
Laundry soap	tonnes	5,200	4,858	2,424	-6.9	-50.1
Toilet soap	tonnes	2,074	1,713	1,645	-17.4	-4.0
Animal feed	tonnes	313	795	789	153.9	-0.8
Copra	tonnes	1,629	2,722	2,589	67.1	-4.9
Crude oil	'000 gal.	257	407	387	58.4	-4.9
Edible oil	'000 gal.	150	204	175	36.0	-14.2
Soft drinks	'000 cases	197	200	196	1.5	-2.0

Source: Statistical Division, Ministry of Finance.

14.2.3 Manufacturing problems and prospects

The potential for domestically oriented manufacturing in Dominica is constrained by the small size of the domestic market. The regional market offers some possibilities for export but competition from other island states and trade restrictions within CARICOM have tended to diminish such possibilities of late.

In the agro-industrial sector the major task is to identify production processes with appropriate scales of throughput which will not only utilize the existing or potential indigenous raw materials but will also meet known market requirements, particularly those outside the CARICOM region. Such processes are likely to be very demanding of both technical and managerial skills, not least in the establishment of a reliable supply of high quality inputs through careful procurement and production planning. Given existing technologies, agro-processing for export is subject to economies of scale and its development in Dominica is likely to be restricted to a narrow range of commodities suited to known market needs; it goes without saying that careful and informed selection of projects is a prerequisite for success.

14.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

14.3.1 Policies and institutions

In the period immediately after the hurricanes, prudent management of the economy through fiscal reform, designed to strengthen public sector finances, has created the basis for future growth, providing Dominica develops its ability to mobilize and deploy domestic resources to match external inflows. The priorities are to accelerate economic growth, to generate additional employment opportunities, and to strengthen the country's balance of payments position. Two priority areas are to achieve agricultural diversification and to develop agro-based and assembly-type manufacturing activities.

The government is committed to the promotion of private sector investment in industrial development in order to help diversify the productive structure

of the economy, increase employment, and increase export earnings. Its aims have been threefold:

- to encourage the exploitation of local raw materials and resources;

- to encourage foreign and joint venture labour-intensive industries; and

- to stimulate the development of indigenous entrepreneurship. Enclave type industries have been encouraged to provide employment and increase foreign exchange earnings in the short-term.

A major concern of government is to develop forward and backward linkages within agriculture and with other sectors of the economy to provide increased opportunities for import substitution and for growth of non-traditional exports. One successful example todate of the utilization of local agricultural raw materials is the processing of copra to produce edible coconut oil, both for domestic consumption and for export, together with commerical coconut oil, which, when combined with imported inputs (chemicals and tallow), is used to produce laundry and toilet soaps, both for the domestic market and for export. As agro-industries expand, they will require more sophisticated processing, storage, and distribution networks to handle both inputs and outputs - with important implications for employment.

The Industrial Development Corporation is one of Dominica's prime agencies for the implementation of industrial policies. The corporation is responsible for all the necessary aspects of planning, promoting, screening, negotiating, implementing, and monitoring private sector investment proposals and projects. Recently, with technical assistance from USAID, the corporation has been seeking to identify and encourage external investors to utilize Dominica as a base for offshore manufacturing, targetted chiefly at the USA market. The Agricultural and Industrial Development Bank has been closely associated with this strategy and is responsible for the financing and management of the construction of factory facilities, as well as for the provision of capital for local entrepreneurs. Its major source of funding has been the Caribbean Development Bank.

The development agencies could undertake programmes to identify, screen and train entrepreneurs to enhance their performance, and, in addition, should provide an appropriate business extension service to assist local enterprises with technical, marketing, financial planning and related mangerial difficulties. A need was also identified for supporting services and other activities related to manufacturing and to agro-industries in particular. Maintenance and repair services, warehousing and distribution, and specialist contract production services will be required to sustain the development of the industrial sector.

14.3.2 Resources for industrial development

Human resources

The Dominican labour force was estimated to be 26,000 in 1984; the number of unemployed was estimated officially at 3,300 in 1984. Literacy on the island is very high and the work force is adaptable and responds quickly to training.

Agricultural resources

Dominica produces a range of agricultural produce which already serves as the basis for some processing. Exports of fresh fruit outside the Caribbean region are constrained by inadequate shipping services and high freight costs, therefore such exports are largely limited to CARICOM. However there is potential for additional processing, but this may require larger scale production than is currently available. Amongst the citrus fruits, limes are mostly processed into juice and oil, but marketing constraints have hindered recovery after the hurricanes. The rehabilitation of coconut production has made considerable progress, and the main issue with this crop is the scope for expansion of output. At present there is considerable surplus processing capacity and marketing arrangments for oil under CARICOM arrangements are currently favourable. Dominica also has some significant timber resources, capable of yielding 2 million sq.ft. per annum.

Mineral resources

Dominica possesses a variety of mineral resources, including pumic, which can be used as a light weight aggregate in construction, as an insulating material, as raw material for tiles and plasters. There are also clay and limestone deposits, suitable for building materials.

Potential for tourism

Dominica has considerable resource potential for tourism of a rather specialized kind. Its mountainous and rugged scenery make it well suited to naturalists, and it could be successfully promoted as a location for those tourists favouring outdoor pursuits, such as hiking, mountain climbing, camping etc. The present tourism sector remains small but it has grown rapidly since 1982 because of an increase in cruise-ship and stayover visitors; Dominica's distinctive opportunities could be exploited through excursions for this market, but attempts to promote this sector thus far have been haphazard, largely because of a lack of resources and skills.

Energy

Dominica has no known fossil fuels but it does possess considerable hydro-electric potential, which already provides 80 per cent of electricity generated. Petroleum imports are the main alternative source of energy and imports of these have increased at a rate of 20 per cent in recent years.

Finance

The Agricultural and Industrial Development Bank was established in 1981 and is the prime source of finance for industrial development. The objectives of the Bank are to promote and influence economic development and to mobilize funds to that end. The Bank is empowered to make both long and medium term loans for the development/improvement of land, the erection of buildings, and the purchase and installation of equipment and machinery. Priority is given to investment proposals which are designed to increase employment or are labour intensive, achieve savings of foreign exchange through export generation or import substitution, or which lead to the accumulation of capital in the banking system. Industrial loans attract interest rates ranging from 10 to 10.5 per cent, and the initial grace period is usually three years.

The government of Dominica supports a mixed economy, with public, private and co-operative sectors. Where the public interest demands a public sector involvement the government normally prefers that this should be on a joint venture basis. The private sector is expected to play the dominant role in agricultural, industrial and overall economic development. Government has supported co-operative ventures in agriculture, fisheries, food processing, art and crafts, transport and credit supply.

Dominica welcomes both local and foreign investment in accordance with the national programme, and has a range of incentives to support such ventures. The foreign exchange policy is very liberal. Providing assets are registered with the Ministry of Finance and the Industrial Development Corporation, repatriation is not a problem. Imports of goods and services required for production can also be facilitated. Profits are freely repatriated, but some encouragement is provided within the incentive schemes for re-investment in Dominica.

The Fiscal Incentives Act specifies five groups of enterprises which qualify for tax holidays. For the first three groups the length of tax holiday depends on the amount of value added in Dominica; 50 per cent or more value added attracts a tax holiday of up to 15 years, 25 to 50 per cent up to 12 years, and 10 to 25 per cent up to 10 years. The fourth group provides enclave-type industries, which exclusively produce for extra-CARICOM markets, with tax holidays of up to 15 years. The last group comprises capital-intensive activities where the amount invested exceeds EC $9.25 million, and also involves a tax holiday of up to 15 years. The computation of value added is according to a standard CARICOM formula.

Factory space rents on Dominica are subsidized by almost 50 per cent and there are also training incentives, including provision for 75 per cent of minimum wages during the initial start-up period. Companies which qualify for tax holidays are allowed to import into Dominica duty-free all equipment, machinery, spare parts and raw materials used in production.

14.3.3 The role of technical co-operation in industrial development

In the field of technical co-operation top most priority has been given to the rehabilitation of the road network. The emphasis is shifted to the construction of farm access roads necessary for bringing produce to market. Another critical issue is the need to establish adequate facilities for air transportation to facilitate light manufacturing. In manufacturing, including agro-industries, assistance to improve management is of primary importance. Technical assistance is also needed to improve manufacturing techniques in order to make products competitive. UNDP resources totalling US $80,000 are earmarked for vocational and skills training in the programming cycle covering the period 1987-91. The government insists that all technical assistance activities must include provision for training of nationals, especially in instances where key technical positions are filled through external assistance.

To develop and exploit the forest and natural resources effectively, basic studies need to be conducted in order to determine the sustainable yield of the forests. Training in appropriate methods of using and preserving the

different species of wood is a priority for the survival of the furniture industry. There is also a need to improve manufacturing methods and designs in order to develop an export market for furniture. The fisheries industry is to be strengthened through provision of appropriate technical expertise in processing, storage, distribution and marketing facilities.

The two key institutions in the government's industrial development policies are the Industrial Development Corporation and the Agricultural and Industrial Development Bank. These two institutions are in need of practical support through technical assistance at the intermediate technical level in order to help with project identification appraisal and development. There is also a need to bring to bear a wider and deeper range of practical experience with industrial projects than can be expected to be developed in a small island environment; this is particularly important to the success of the various investment promotion activities targetted on overseas investors.

The establishment of entrepreneurial reinforcement programmes and follow-up support services also requires specialists' expertise and more importantly practical experience of small businesses. This technical support for established businesses should focus on three priority areas: production technology, quality control, and export marketing, in order to make a constructive contribution to increasing competitiveness.

APPENDIX 14.A

Manufacturing projects seeking external assistance

CONTROL NUMBER: 001184
ISIC: 3112
PROJECT NUMBER: DMI/001/V/84-10 COUNTRY: Dominica
PROJECT TITLE: Ice Cream
PRODUCT & CAPACITY: 25,000 gallons/year of ice cream
COOPERATION SOUGHT: JVE, EQY, LNS, LIC, SOT, TEX
TOTAL PROJECT COST: US$ 300,000 PROJECT IS: Expansion
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001185
ISIC: 3113
PROJECT NUMBER: DMI/002/V/84-10 COUNTRY: Dominica
PROJECT TITLE: Pepper Sauce and Passion Fruit Juice
PRODUCT & CAPACITY: Pepper sauce: Current capacity - 50,000 gallons/year; to be increased to 150,000 gallons/year
Passion fruit juice: Current capacity - 30,000 kg/year
COOPERATION SOUGHT: JVE, AFM
TOTAL PROJECT COST: US$ 120,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001186
ISIC: 3122
PROJECT NUMBER: DMI/003/V/84-10 COUNTRY: Dominica
PROJECT TITLE: Animal Feed
PRODUCT & CAPACITY: 80,000 tons/year
COOPERATION SOUGHT: JVE, SOT, AFM
TOTAL PROJECT COST: US$ 840,000 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 001187
ISIC: 3311
PROJECT NUMBER: DMI/004/V/84-10 COUNTRY: Dominica
PROJECT TITLE: Sawn Timber
PRODUCT & CAPACITY: Current production: 1 million board feet of sawn lumber/year
To be increased to 2 million board feet/year
COOPERATION SOUGHT: EQY, LNS, LIC, SOT
TOTAL PROJECT COST: US$ 588,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850107

CONTROL NUMBER: 002373
ISIC: 3909
PROJECT NUMBER: DMI/005/V/85-12 COUNTRY: Dominica
PROJECT TITLE: Pencil Making Plant
PRODUCT & CAPACITY: 500 gross pencils per day
COOPERATION SOUGHT: EQY, LNS, LIC
TOTAL PROJECT COST: US$423,000 PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 860120

APPENDIX 14.B

Manufacturing projects supported by the Commonwealth Secretariat, 1981-86

1. Manufacture of wood based products
2. Diversification and engineering plan for fruit juice processing
3. Assistance to small-scale food processing units
4. Manufacture of clay bricks
5. Saw milling
6. Manufacture of products based on straw and bamboo
7. Upgrading of garment manufacturing unit
8. Manufacture of ice cream
9. Engineering maintenance
10. Leather products

APPENDIX 14.C

Leading companies by sector, 1986

Agriculture
- Dominica Banana Growers Association
- Dominica Agricultural Marketing Board

Manufacturing and trade
- Dominica Agroindustries
- Dominica Coconut Products
- Belfast Estate
- J A S Garraway (Tobacco) Factory
- Dominica Timbers
- P W Bellot & Co
- Witchurch
- Mussons Trading
- J Astaphan (1970)

Other
- Dominica Electricity Services
- Cable & Wireless (WI)
- Anchorage Hotel

Source: South, April 1986.

APPENDIX 14.D

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

DOMINICA

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	Project Title
IO/TRNG	(31.5.B)	RP/DMI/81/001	Middle management training programme for women
IO/AGRO	(31.7.C)	DP/DMI/80/001	Preparatory mission for establishment of multipurpose agro-processing industrial plant
IO/AGRO	(31.7.C)	UC/DMI/84/003	Utilization of banana waste
IO/T/AGRO	J13101	UC/DMI/83/095	Wooden bridge construction
IO/COOP	(31.1.D)	DP/DMI/81/004	Training in investment promotion
IO/COOP	(31.1.D)	UC/DMI/83/096	Training in investment promotion

2. The approved and/or operational projects

DP/DMI/86/004	IO/T/AGRO	J13101	Dominica kiln drying wood
SI/DMI/86/879	IO/T/AGRO	J13101	Assistance to the furniture industry

15
ST. CHRISTOPHER-NEVIS

15.1. THE ECONOMY OF ST. CHRISTOPHER-NEVIS

15.1.1 Recent economic trends

The economy of St. Christopher-Nevis (known as St. Kitts-Nevis) has performed somewhat erratically over the last ten years. GDP growth has varied from 0.8 to 6.7 per cent per annum reflecting the extreme sensitivity of the economy to changes in sugar production and to fluctuations in the sugar price. The average rate of growth over the period 1977 to 1983 has been 2.8 per cent per annum; this increased in 1984 to 3.3 per cent per annum but fell back again to 1 per cent in 1985. Preliminary estimates for 1986 indicate that real GDP grew by 3 per cent. The fastest growth has been experienced in tourism related services; manufacturing and construction have also grown considerably, while agricultural output of crops other than sugar has grown more modestly.

The balance of payments shows large trade and current account deficits, which have been increasing and recently have been averaging over 20 per cent of GDP. Sugar exports account for about 45 per cent of total exports, but exports of manufactures have been increasing and reached US $7.8 million in 1983. However, these assembly type industries do not have large value added locally and therefore are small net contributors of foreign exchange. Earnings from tourism, however, have almost doubled between 1978 and 1983 to reach US $10 million. On the other hand, imports have increased rapidly in recent years. Consumption goods have doubled in volume of imports in the last five years, while imports of fuel have tripled.

The volume of investment in St. Kitts-Nevis has traditionally been quite large in relation to GDP, and more than half of the total was executed by the public sector. In a small island economy, the cost of investment in infrastructure is high in per capita terms. Savings have been declining since 1978. The large number of nationals living abroad has influenced the local pattern of consumption towards the norms prevailing in North America and Europe. As a result domestic savings have become negative, but so far sizeable transfers from migrants overseas have been more than adequate to finance investment needs.

Since no single sector can bear the full burden of earning foreign exchange, the major thrust of the government's development strategy is to diversify the economy so as to create employment and foreign exchange earning opportunities in other sectors: tourism, high value non-traditional agriculture and small scale manufacturing.

15.1.2 Economic structure

St. Christopher-Nevis has a population of 43,300 and a land area of 262 sq. miles. These islands are of volcanic origin and have fertile soils, thus being well suited to agriculture. Sugar has historically been the backbone of the economy, although on Nevis sugar was abandoned in the 1960s, and on St. Kitts itself there was a substantial decline in production in the 1970s. After rescuing the sugar industry through government intervention in 1972, the government's strategy has been to try to improve efficiency in the industry in order to increase its competitiveness.

With regard to agriculture as a whole, the government has sought to diversify agricultural output and to modernize production through improvements,

such as irrigation and mechanization. There has been some increase of cultivation of crops other than sugar, although sugar remains preponderant. Cotton, groundnuts, vegetables, fruits, and livestock have all come to have a significant share of output, and St. Kitts has come near to or is at self-sufficiency in most types of vegetables consumed locally. Table 15.1 shows that the share of agriculture in GDP fell sharply from 15.8 per cent in 1982 to 12.8 per cent in 1985.

Table 15.1 Distribution of GDP by sector of origin, 1982-85
(in constant 1977 EC $million)

	1982	1983	1984	1985a/
Primary sector	14.37	11.81	12.25	11.97
of which: Agriculture	14.09	11.50	11.99	11.68
Other	0.28	0.31	0.26	0.79
Secondary sector	23.66	23.17	22.94	22.79
of which: Manufacturing	13.17	11.72	13.15	11.88
Electricity and water	1.00	1.01	1.07	1.10
Construction	9.49	10.44	8.72	9.81
Tertiary sector	54.63	56.08	59.13	60.65
of which: Wholesale and retail trade	10.18	10.95	12.29	13.03
Hotels and restaurants	2.50	2.48	2.88	3.29
Transport and communication	9.41	9.64	10.03	10.91
Banks and insurance, real estate and housing, other services	15.08	15.47	16.31	17.07
Government services	17.46	17.54	17.62	16.35
Sub-total	92.66	91.06	94.32	95.41
Less imputed services charges	5.25	3.30	3.43	3.81
Total	89.41	87.76	90.69	91.60
Growth rate	6.31	1.85	3.34	1.00
GDP at current prices	137.76	136.17	148.92	155.59
GDP deflator	142.9	155.2	164.2	169.9

Source: OECS Economic Affairs Secretariat.

a/ Provisional.

The share of manufacturing in GDP also fell in each successive year between 1982-85, excepting in 1984. The public sector on St. Kitts-Nevis is predominant; its activities account for almost 45 per cent of GDP, largely because of the heavy government involvement in the sugar industry. The financial position of the public sector has been largely determined by the export price of sugar and the government's policy on wages for the public

sector. Central governemnt's revenues have been high as a proportion of GDP but because of the difficulties of the sugar industry they have been declining in recent years. The government has prepared a public sector investment programme for the period 1985 to 1987, in which investment is expected to double, with the help of external agencies; 80 per cent of the total EC $83 million is to go to infrastructure and agriculture.

Tourism has increased steadily in importance in the economy of St. Kitts-Nevis through the 1970s and early 1980s because of the attractions of the unspoilt landscape of the two islands and the relatively good transport facilities providing direct links to North America. The existing infrastructure is adequate to support increased services and occupancy rates are low because of pronounced seasonality. Although St. Kitts itself does not have many very good beaches it does have a number of historical attractions, while Nevis is much better endowed with beaches.

The process of economic diversification in all the major productive sectors began in the 1970s, and has accelerated in recent years. However, the agricultural sector remains the most important employer although there is a marked seasonality in the pattern of employment. The sugar industry for example employs one third of the labour force for six months of the year. Services, manufacturing, and government account for the majority of the remainder.

15.2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

15.2.1 Overview of the manufacturing sector

The major industry in St. Kitts-Nevis is the processing/refining of sugar. There is also a processing plant for the production of oil from copra and from cotton seed. In the manufacturing sector there are a range of new, enclave-type enterprises, together with some smaller enterprises. The enclave industries produce electronics components, electrical equipment, shoes, and garments; in 1982 these numbered 28 and employed about 1,200 persons. The six electronics components enterprises have become by far the most important of these, accounting for 32 per cent of total exports in 1984. In comparison electronics exports in 1980 were 8 per cent of total, then being worth just over 10 per cent of the 1984 value. The smaller enterprises undertake light manufacturing activities and produce beverages, metal goods, furniture, among other products.

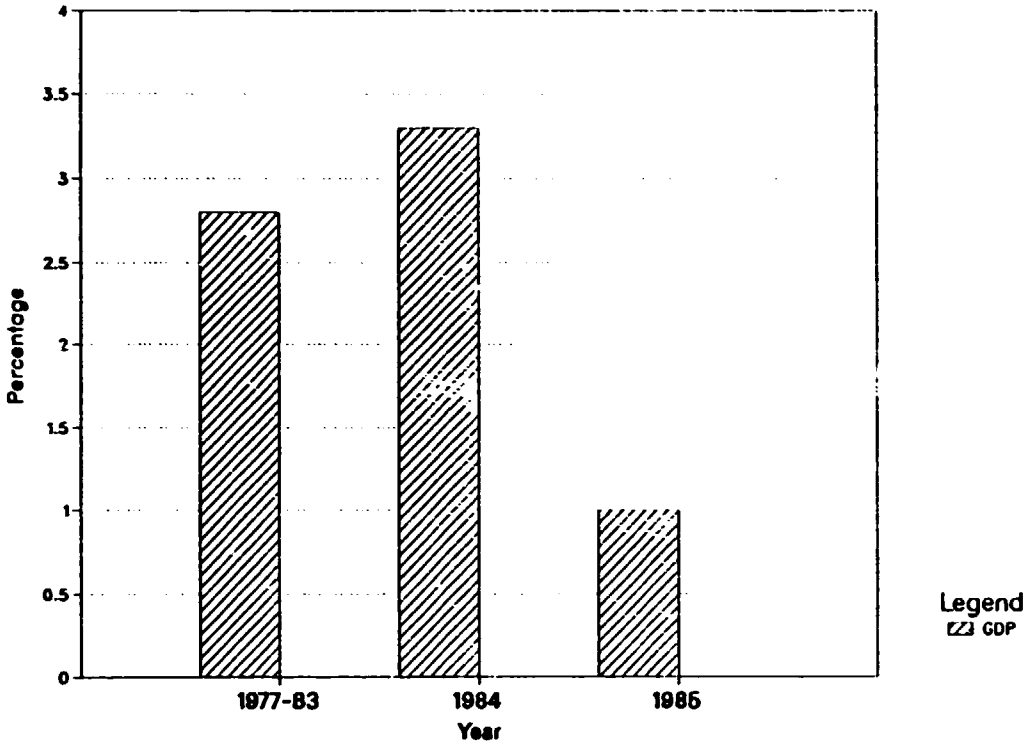
15.2.2 Growth and performance

If sugar processing is discounted, the non-sugar manufacturing value added would account for around 7 per cent of GDP. The manufacturing sector as a whole suffered a negative growth rate of 11.4 per cent in 1983. However, it recorded a 9.4 per cent increase in 1984, far outstripping the rate of growth of GDP. This shows that the manufacturing sector has been relatively vibrant in recent years.

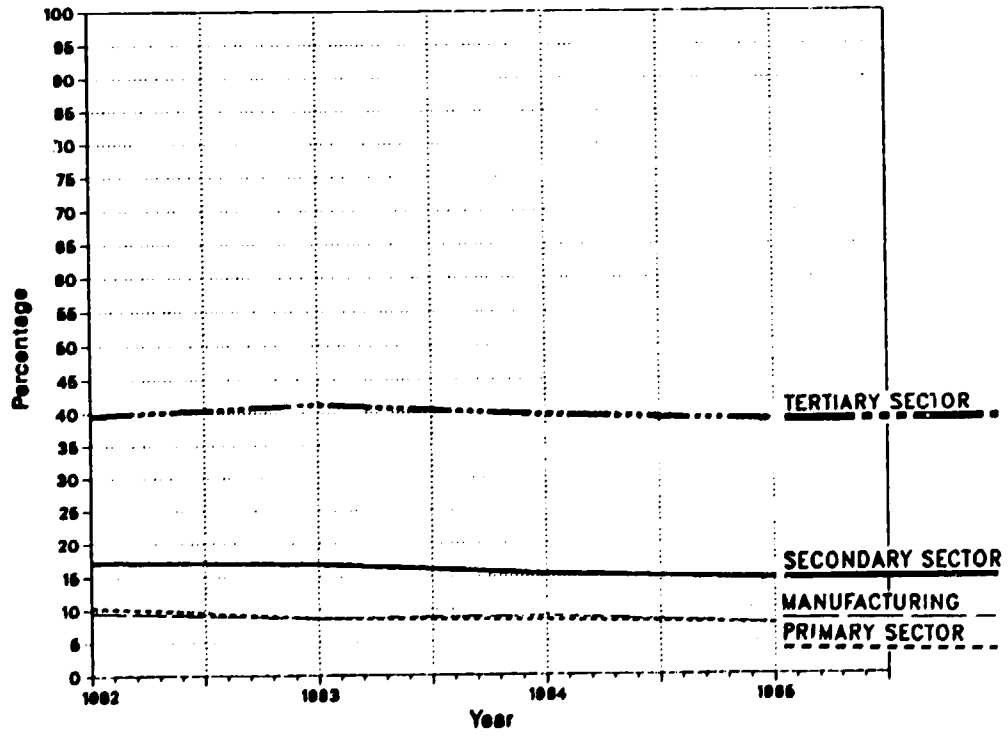
Table 15.2 shows the production volume of manufacturing subsectors. Sugar production increased from 32,500 tonnes in 1981 to 36,600 tonnes in 1982 and the increased volume of output was sustained in 1983. The output of molasses fell to 10,200 tonnes in 1983 after increasing from 10,200 tonnes in

MANUFACTURING TRENDS

REAL GROWTH RATES OF GDP,1977-1985

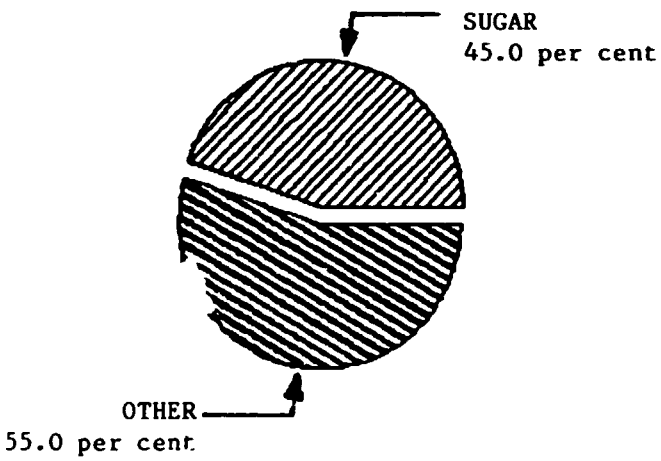


DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1982-1985

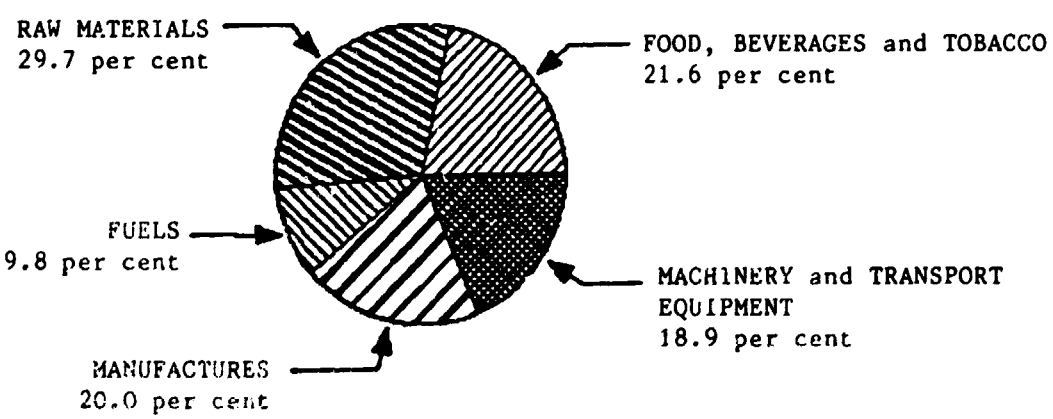


EXPORTS AND IMPORTS

SHARE OF SUGAR IN TOTAL EXPORTS, 1986



COMPOSITION OF IMPORTS, 1983



1981 to 11,200 tonnes in 1982. The production volumes of other subsectors of manufacturing show mixed trends. The most striking aspect of Table 15.2 is the spurt in the production of electronic components in 1982. Although production fell in 1983, the 1984 production volume indicates the industry's capability to increase its output to the 1982 level of production.

Table 15.2 Indicators of manufacturing production, 1982-84

	Unit	1981	1982	1983	1984
Sugar	'000 tonnes	32.5	36.6	36.6	...
Molasses	'000 tonnes	10.2	11.2	10.2	...
Beer and ale	'000 gallons	323	230	367	443
Aerated water	'000 gallons	529	583	612	...
Clothing	'000 pieces	4,140	3,779	3,880	...
Footwear	'000 pairs	39	49	80	...
Electronic components	'000	690	4,663	3,300	4,400
Radios and television sets	dozen	217	238	...	...
Concrete blocks	'000	925	...	1,250	...
Industrial gases	'000 lbs	208	182	197	...

Source: Data supplied by ECLAC and ECLAC estimates.

The sugar industry on St. Kitts is publicly owned. The sugar industry has been a staple economic activity in St. Kitts since the early nineteenth century, being one of the first to be established in the Caribbean. It enjoys two major advantages: the favourable climate and fertile volcanic soils of St. Kitts and a major export market. Low export prices and increasing difficulties in remaining competitive on production costs threaten the survival of the industry.

In 1970 the government established a Sugar Industy Board to facilitate the development of the industry, dealing with such matters as the length of reaping season, soil treatment, mechanization, industrial relations, land use and agricultural diversification. In the mid-1970s the government accepted responsibility for the administration of the sugar estates and the process of nationalization was completed with the acquisition of the sugar factory in 1976. Thus, since 1976 the entire sugar industry has been under the control of the National Agricultural Marketing Corporation (responsible for field operations) and the National Agricultural Corporation (responsible for manufacture, marketing and distribution). Thirtysix estates, covering 6,480 ha. currently produce sugar which is processed by a single mill.

Production of sugar reached 50,000 tonnes in 1960 but by 1975 had declined to 26,000 tonnes. Since then the trend has been reversed and production between 1978 and 1982 has averaged 36,000 tonnes. The majority of the sugar is exported under preferential trading arrangements; about 75 per cent goes to the EEC, and 25 per cent to the USA. The prices obtained under

these preferential trading arrangements have been significantly above prevailing world prices. However, the industry itself has been suffering from substantial escalation of production costs, +38 per cent over the period 1978 to 1982, largely because of rise in labour costs. At the same time world prices have themselves tended to fall. There are possibilities for reducing the cost of labour inputs in St. Kitts; these include stricter control of an out-of-season employment scheme, better field management, and mechanization. In addition there is a need for substantial investment in modernizing field operations, handling and processing, since these have been neglected during the period of poor financial health of the industry.

The government of St. Kitts-Nevis is committeed to make the sugar industry economically and financial viable, and a major study into the problems and needs of the industry has been recently carried out prior to mounting a major rehabilitation programme.

15.2.3 Manufacturing problems and prospects

In view of the established economic structure of St. Kitts-Nevis and the declared priorities of the government, manufacturing problems and prospects could be seen in three distinct areas. First, the sugar industry requires substantial technical support as well as investment in its drive to raise efficiency and international competitiveness to ensure the survival of the industry. Second, as the government seeks to attract foreign investors to establish new offshore manufacturing activitives in St. Kitts, there is both a need to raise the standard of technical efficiency in the promotional activities and the processing of project proposals etc., and to monitor the working and impact of the industrial incentives so as to ensure that they not only succeed in their immediate objective but that they also work in a way which is most advantageous for the longer-term development of the economy as a whole. Third, there is the need to encourage and support the emergence of local entrepreneurs both as joint venture partners and as sole proprietors, particularly in those activities designed to establish linkages with other industrial activities, and also with tourism.

A major investigation and planning study has already been undertaken to provide the framework for a concerted plan of action designed to rehabilitate the sugar industry and its supporting services. The implementation of this plan will not only require technical assistance with the reorganization of field operations and the processing of sugar and its by-products, but also with the multiplicity of needs in the related and associated services concerned with the handling, transport, and distribution of raw materials, intermediate products and finished products.

The major challenge is to diversify manufacturing activities and to reduce the country's dependence on the sugar industry as the main export and major employer. St. Christopher-Nevis has been relatively successful in attracting private investment in enclave industry because of its open economy and stable political climate. Enclave manufacturers operate in garment and shoe production, electronics and data processing. However, the performance of these industries has been uneven and greater effort will have to be made to stimulate foreign and local investment as additional diversification potential exists in light manufacturing.

15.3. POLICIES AND RESOURCES FOR INDUSTRIAL DEVELOPMENT

15.3.1 Policies and institutions

The establishment of new industries in St. Kitts and Nevis is a major goal of the government's development policy. Expansion of manufacturing and tourism are expected to provide employment opportunities for the growing work-force, for those leaving agriculture, and for the unemployed. A major part of the government's strategy has been to attract export oriented, assembly type industries and the government encourages increased investment and active participation in economic development by the private sector.

The government of St. Kitts-Nevis has actively promoted the two islands as location for offshore manufacturing, mainly of the assembly type, also in food processing and tourism related activities. There has been a consistent attempt to create a favourable investment climate, exploiting the history of smooth industrial relations. Two industrial sites have been created with the construction of advance factory shells by the local development bank to provide much needed suitable accommodation for new enterprises. There is also a proposal to establish an export processing zone near the airport.

The government has also introduced a system of fiscal incentives in accord with those of other OECS and CARICOM member states, which provide for tax holidays for up to 15 years, duty-free import of machinery, raw materials equipment, and spare parts for production for the duration of the tax holiday.

The constraints which hold back industrial development in this small island environment are to be found also in other OECS members. The shortage of entrepreneurial skills and trained managers, particularly for more senior positions, is a long-term problem, which is not easily solved in itself at the national level but is perhaps more amenable to solution at the regional level. St. Kitts-Nevis has limited the amount of credit available to the private sector by the demands of the public sector; this difficulty will only disappear when the precarious financial situation of the public sector is fully dealt with. In addition there is only a very limited supply of purpose-built factory accommodation on St. Kitts, and some of this may become quickly too small for the more successful enterprises.

Four types of enterprise qualify for tax holidays in St. Kitts-Nevis. The length of the tax holiday is a function of the amount of value added in St. Kitts-Nevis. Those enterprises with 50 per cent or more value added locally are eligible for tax holidays of up to 15 years; those with 25 to 50 per cent up to 12 years, and those with between 10 and 25 per cent up to 10 years. Those enclave industries producing exclusively for export outside the CARICOM region are treated separately, and may be eligible for up to 15 years tax holidays.

Companies which qualify for tax holidays are allowed to import into St. Kitts-Nevis duty-free all equipment, machinery, spare parts, and raw materials, used in production. At the end of a tax holiday period St. Kitts provides a further tax concession; this is in the form of a rebate on a sliding scale of a portion of the income tax paid on profits from exports in relation to total profits; this ranges from 50 per cent rebate on more than 60 per cent profits attributable to exports to 25 per cent rebate on 10-20 per cent export profits. Companies registered in St. Kitts-Nevis are allowed to repatriate all profits, dividends and imported capital upon arrangement with the Ministry of Finance.

15.3.2 Resources for industrial development

Human Resources

St. Kitts-Nevis has a labour force estimated at just over 20,000, the majority of whom are employed in agriculture. Tourism provided permanent employment for just 5 per cent. Unemployment is estimated to be about 30 per cent, but there is a pronounced seasonality of unemployment in St. Kitts-Nevis. From the beginning of the tourist season in December to the end of the sugar season in July, most find employment of a seasonal or temporary nature; in the off-season, however, the problem is most severe.

Agricultural Resources

Sugar-cane cultivation had for many years been the major agricultural activity. In non-sugar agriculture, efforts are being made to increase production and productivity so as to save foreign exchange through reduced imports and to produce an exportable surplus. The major thrust is to accelerate the diversification programme with emphasis on livestock, fisheries and forestry development.

Energy

St. Kitts-Nevis has no indigenous energy resources, and at present relies on imported petroleum products for its energy requirements. However, there is a proposal to generate electricity from sugar-cane bagasse for the sugar mill and for the national grid, which would bring signficant savings on imported petroleum products if 20 per cent of the country's power needs could be generated in this way, as is expected.

Finance

Development loans are available through the St. Kitts-Nevis Development Bank, though on rather a limited scale. External assistance has provided additional finance for on-lending from the Caribbean Development Bank and the European Investment Bank.

15.3.3 The role of technical co-operation in industrial development

The enhancement of the industrial promotion effort will involve technical co-operation in crucial areas such as overall industrial planning and resource assessment, project identification and development, investment promotion activities, project assessment and monitoring, export marketing,and policy review and redesign in order to ensure improved outreach to potential investors and an accelerated rate of project implementation given the limited resources available.

To ensure that the greatest possible integration of enclave and export oriented industries with other sectors of the economy is made forward and backward linkages should be established. This will require two kinds of technical co-operation: first, direct support for concerned development agencies in their attempts to encourage and accelerate such initiatives; and second, both direct and indirect support for small/medium enterprises themselves with their managerial, financial, technical production and marketing difficulties.

During the 1982-86 Country Programme the country has benefitted from educational inputs under the multi-island education project which has promoted and integrated technical and vocational training into the formal curriculum of the school system. During the 1987-91 Country Programme, the government seeks assistance to identify and develop viable cottage and small-scale industries, notably in handicrafts, food preservation, textiles and fish processing.

APPENDIX 15.A

Manufacturing projects assisted by the Commonwealth Secretariat, 1981-1986

1. Fruit juice
2. Plastic products
3. Light engineering products

APPENDIX 15.B

Leading companies by sector, 1986

Agriculture
- St. Kitts Sugar Manufacturing Corp
- Central Marketing Corp

Manufacturing and trade
- S L Horsford & Co
- Barker & Kelly

Tourism
- Jack Tar Royal St. Kitts
- Fort Thomas Hotel
- Ocean Terrace Inn
- Frigate Bay Beach
- Fairview Inn
- Zetland Plantation

Source: South, April 1986.

APPENDIX 15.C

THE COMPLETED TECHNICAL CO-OPERATION PROJECTS OF UNIDO

ST. CHRISTOPHER & NEVIS

1. The completed projects since 1972

Backstopping Responsibility	Progr. Element (old S.A.C)	Project Number	Project Title
IO/INFR	(31.3.D)	DP/STK/75/002	Extension services for small-scale industries
IO/AGRO	(31.7.B)	SI/STK/78/801	Assistance to the Dan Dan Garments Ltd. Factory
IO/AGRO	(31.7.C)	DP/STK/80/002	Small-scale agro-industrial project
IO/AGRO	(31.7.D)	DP/STK/76/001	Footwear manufacture leather products industry
IO/AGRO	(31.7.D)	IS/STK/74/016	Footwear Factory Nevis-Anguilla/ footwear industry

16
SELECTED MICRO-STATES

16.1 INTRODUCTION

On account of their very small size, both in terms of territory (less than 500 sq.km. in area) and population (less than 25,000) (see Table 16.1), five island states of the Caribbean region can be considered as micro-states. These are: the Cayman Islands, the British Virgin Islands, Montserrat, Anguilla, and Turks and Caicos Islands. All are dependencies of the British Crown, although with varying degrees of autonomy, and all almost without exception hold tenaciously to the concept of dependency as a guarantee of stability and thus their future prosperity. One of these, Montserrat, is a member of the Organization for Eastern Caribbean States, while several others belong to various regional organizations.

16.2 ECONOMIC STRUCTURE AND RECENT ECONOMIC TRENDS

16.2.1 The Cayman Islands

The Cayman Islands' population is estimated at around 20,000. Financial services and tourism are the twin pillars of this British colony, which has hardly any natural resources. Yet the Cayman Islands have in the last two decades become a major offshore financial centre, with 500 banks and 323 insurance companies being registered to enjoy the freedom from taxation and the confidentiality laws. The Cayman Islands' political stability and their proximity to the USA have been major contributory factors to these developments, but the absence of direct taxation, liberal foreign exchange regulation, up-to-date and flexible company law and good communications have also facilitated this pattern of development. In recent years steps have been taken to improve the status and reputation of this offshore financial services centre.

In 1985, 403,350 tourists, 64 per cent from cruise liners, visited the three main islands - this represented an increase of 12.7 per cent on the previous year; hotel capacity has recently been increased by 30 per cent, and steps have also been taken to improve the islands infrastructure with a series of projects including major sewerage, water desalination, and airport improvement schemes. In 1985 foreign exchange earnings from tourism amounted to more than US $70 million; 80 per cent of tourists originated in the USA, a further 10 per cent in Jamaica, with which the Cayman Islands were linked prior to Jamaican independence.

The economy is totally dependent on imports of consumer and capital goods, financed entirely from income from tourism and from the offshore financial activities. Inevitably the economy is dependent on overseas developments, especially those in the USA. There are a number of small scale, craft and tourism related activities producing jewellery and other souvenirs for sale to the visitors, as well as some construction related activities such as concrete block-making. A chemical packing plant has been recently established together with a furniture producer.

In 1978 the government established an Agricultural and Industrial Development Board. Emphasis has so far been placed on the cultivation of certain vegetables and fruits to try to reduce dependence on imported food.

Table 16.1 Inter-country comparison of selected economic indicators of micro-states, 1980-86 (selected years)

	Cayman Islands	British Virgin Islands	Montserrat	Anguilla	Turks and Caicos Islands
Land area (sq. km.)	259	150	102	91	430
Population ('000)	18,750 (1983)	12,600 (1983)	11,672 (1983)	6,700 (1982)	4,436 (1980)
Annual growth rate of population (per cent)	5.0 (1983)	1.3 (1983)	0.3 (1983)	...	...
Population density (per sq.km)	73	84	115	74	17
Total labour force	8,154 (1983	...	4,900 (1983)	...	...
GNP (US $ million)	...	55.0 (1982)	27.6 (1983)	... ...	15.0 (1980)
GNP per capita (US$)	...	4,508 (1982)	2,360 (1983)	... ...	2,000 (1980)
Visitor arrivals	307,878 (1983)	122,000 (1983)	26,549 (1983)	19,305 (1980)	14,200 (1982)
Exports (US $ million)	0.54 (1981)	2.0 (1981)	8.7 (1982)	0.6 (1984)	2.5 (1983)
Principal exports	Textile, shells, turtle meat, tropical fish	...	Peppers, tomatoes, cattle, garments, electronics components, polythene bags	...	Lobster
Imports (US $ million)	83.7	49.8	22.8	...	20.9
Principal imports	machinery and transport equipment, food items, mineral fuels chemicals	Machinery and transport equipment food items mineral fuels	Machinery and transport equipment food items mineral fuels	...	...
Balance of trade (US $ million)	-83.1 (1981)	-47.0 (1981)	-14.1 (1982)	...	-18.4 (1983)
Exchange rate (local currency equivalent to US $1)	CI$1.20 (1985)	US $1.00 (1986)	EC $2.70 (1983)	EC $2.70 (1986)	US $1.00 (1986)
Airports	1	1	1	1	3
Seaports	1	1	1	1	4
Roads (km.)	175	100	200	90	120

16.2.2 The British Virgin Islands

The group of islands which constitute the British Virgin Islands number 35 to 40 islands, of which 16 are inhabited; together they amount to between 130 and 150 sq.km. with a total population of approximately 12,000. Tourism is the mainstay of the economy, contributing more than 50 per cent of GDP and providing almost 30 per cent of employment. Access by air is carefully controlled and limited to small aircraft; visits by cruise ships are also limited. A system of marine conservation is strictly enforced, and the tourist sector hinges largely on the chartering/servicing of yachts. The islanders have access to the US Virgin Islands for employment and some 2,000 are thought to work overseas. Industrial activity is confined to handicrafts and souvenirs in support of the tourist sector, rum distillation, paint manufacturing; there is also a small amount of offshore financial services. Some mineral deposits are exploited on a limited scale, including salt, sand and gravel.

16.2.3 Montserrat

Montserrat is a small island with a narrow resource base. The country has an economy dominated by the services sector, comprising distribution, public administration, and real estate. The performance of the economy is strongly influenced by tourism, and related activities in construction and real estate. Because of its small size, the incidence of large investment projects has a marked impact on the economy at any one time. During the period 1978 to 1981 Montserrat's economy grew at an average annual rate of 8 per cent per annum; a major stimulus to the island's economy during this period was the construction of a medical college on the island for the Caribbean region.

Montserrat's population appears to have stabilized at about 12,000 with the natural increase being cancelled out by emigration. Lately there has been a fall in the rate of emigration, and the total population in 1984 was estimated at 11,700. The labour force numbers 5,000, with the largest proportion being employed in construction. This represents near full employment (94 per cent); although a considerable amount of under-employment - part-time and seasonal - also exists. After increasing at an average annual rate of over 12 per cent per annum in the late 1970s, the number of stay-over visitors reached 15,500 in 1981; cruise traffic was also dynamic in this period. Since 1982 despite improvements in air links with the neighbouring islands of Antigua, St. Kitts and Guadalope, tourist arrivals have tended to stagnate and construction activity has fallen off accordingly. The USA is the dominant market, accounting for 38 per cent of the total arrivals.

Montserrat is undoubtedly more prosperous than some of its neighbouring islands. In part this arises from its volcanic soils, which have supplied both domestic and neighbouring island markets with a range of vegetable and tree crops. In 1982 agricultural output fell after four years of growth; this was partly because of adverse weather but the situation also showed signs of more fundamental decline - only 20 farmers were then consistent producers and output of food crops has declined in recent years. The government has instituted a land settlement programme to increase agricultural production on government-owned estates and on under-utilized private estates. There are serious difficulties in the marketing of agricultural produce in Montserrat which are a critical obstacle to the expansion of agricultural production.

Without careful planning and organization, higher output quickly exceeds the requirements of the domestic market; exporting is difficult because of irregular shipping and relatively high production costs. The revival of the agricultural sector requires a multi-faceted approach involving the resumption of the supply of agricultural credit, the upgrading of equipment and vehicles for agricultural support services, the extension of irrigation, and the full implementation of the Land Development Authority's mandate.

The manufacturing sector in Montserrat comprises mostly small enterprises; 60 per cent employ less than 5 persons. The majority of output, employment and investment are accounted for by 10 per cent of the larger establishments. The manufacturing sector currently includes garment and electronics enterprises, leather tanning and leathercraft, household plastics, magnetic tapes and cassettes, and pharmaceutical processing and packaging.

The goals of the government of Montserrat's industrial policies are to satisfy fundamental human needs and to develop a stable, healthy, balanced industrial sector, which will provide full employment, a high living standard, upward mobility, work satisfaction and job security; the industrial sector is also intended to provide high value added locally, and to be export-oriented, to improve the utilization and vertical integration of indigenous resources, and to blend with other sectors to contribute to a well balanced development of the economy as a whole. The government is committed to fostering the growth of a strong private sector and to encourage local and foreign investment, including joint ventures (where necessary with government participation). Fiscal incentives, support programmes and trade advantages are offered to investors, consistent with CARICOM treaties; packages are designed to meet the needs of particular projects with respect to training, start-up and other assistance measures. The government seeks to introduce high-tech, in balance with more traditional industrial activities and has shown particular interest in the promotion of agro-industries, including marine resource based activities.

One major project which has made considerable progress has been the integrated sea island cotton company which carries out ginning, spinning, and weaving island-grown cotton to produce high quality products for sale to the tourist market. Caribbean Development Bank (CDB) and Canadian International Development Agency (CIDA) assistance, when this project was establihsed, amounted to EC $2.3 million. Despite solving a number of production and technical problems, sales have been lower than anticipated, primarily because of marketing difficulties, resulting in a severe liquidity crisis. Present production levels, using about 50 per cent of the installed capacity, cannot be sustained on the present level of sales. Given the high quality of the products, export prospects are high if the product is appropriately presented to the right markets.

Montserrat's Development Finance and Marketing Corporation was established originally to stimulate, facilitate, and promote the development of agriculture and small industrial enterprises. Recently this corporation has operated at reduced levels because total debt/liabilities have exceeded total assets. However, the lack of agricultural and industrial credit facilities and financing for additional factory shells are major constraints on island development. One of the corporation's greatest difficulties has been inadequate managerial and technical skills, particularly in such areas as project appraisal and marketing.

16.2.4 Anguilla

Formerly part of the associated state of St. Kitts-Nevis-Anguilla, Anguilla succeeded in 1969 and formally regained colonial status in 1980. The island has an area of 91 sq.km., is of coral origin, and its tourist potential with excellent beaches, diving and fishing is considerable. Recent improvements to infrastructure and communications have been designed to reduce the island's isolation and exploit this potential in a controlled manner.

16.2.5 The Turks and Caicos Islands

The Turks and Caicos Islands are made up of at least 30 islands and caves, amounting to 430 sq.km; six of the larger islands are inhabited, although the population at the last census in 1980 numbered ony 7,436. The islands are perhaps one of the last in the region to commence development. However, improvements in air transportation links, including the construction of a new international airport, have recently led to a series of significant tourism developments, and have stimulated the emergent offshore financial services sector.

The potential for development of the Turks and Caicos Islands is considerable. The islands possess a combination of characteristics which augur well for both the growth of tourism and financial services. Their location, climate, available space, legal status, and political stability add up to a most favourable environment. However, the resource base is minimal; skilled and unskilled labour is already scarce; and infrastructure is inadequate to cope with development initiatives on a larger scale than have been evident hitherto.

After the collapse of the salt industry on Grand Turk and Salt Cay in the 1960s, the only on-going revenue earning activity is small scale lobster and conch fishing from South Caicos. Recent improvements in packing facilities for conch and lobster have increased sales to the USA market. The shallowness of much of the inshore water lends them to fish farming, but this has yet to be developed, although there is great interest in the possibility of farming spider crabs for export to the USA.

Only with the establishment of the necessary legislative base in 1979/80 did the offshore banking and finance sector begin to take off. So far there are less than 20 banks, trust companies and law firms undertaking offshore business; the number of companies registered by 1984 was 3,800. Further development of the financial services sector demands direct telephone dialling, daily flights to Miami, daily mail services, improved hotel accommodation, and ancillary services such as printing etc.

16.3. PROSPECTS FOR INDUSTRIAL DEVELOPMENT IN THE CARIBBEAN MICRO-STATES

The overriding development objective of the Caribbean micro-states is economic diversification to the maximum extent possible, so as to reduce their dependence on one or two types of activities. All face similar obstacles to development, including very narrow resources bases, relative isolation and high costs of both external and international transportation. In the initial stages of development, their predominantly subsistence economies lack the revenue raising abilities to maintain unaided minimum levels of government and

administration, as well as the urban and social services demanded by their populations. Planning and implementation capabilities are inadequate to the task of mobilizing their development potential, limited though this is. Technical and production skills are generally lacking, largely because of migration to regional or extra-regional centres of economic activity in search of employment. Thus while on the one hand there is often an enhanced awareness of development needs and opportunities amongst the populations of these micro-states, on the other hand development initiatives are often dependent on major regional or colonial powers for the supply of resources and key inputs.

The Caribbean micro-states all in varying degrees encourage investment in export-oriented industries, import substitution agriculture or agro-industries, and in tourism. Of the most resource poor, several have gone to considerable lengths to establish themselves as offshore financial services centres, successfully exploiting their fortuitous proximity to the USA.

Because of their very small populations and labour forces, the economies of these micro-states are very fragile. As such they are sensitive to the fluctuations of individual industries or subsectors, to closures of individual plants, to the vicissitudes of construction and tourism, and to the uncertainties of agriculture. In each, the service sector tends to dominate in the overall economy, and yet it tends to follow the fortunes of the other sectors, becoming fragile and sensitive in itself.

Industrial enterprises in these micro-states face a number of problems; particularly common are under-capitalization/under-financing, and insufficiency of marketing efforts in the conceptual, planning, implementation and operating phases of projects. Output is often characterized by low quality, high cost production systems; while current products have limited suitability for wider, regional or extra-regional markets. Some producers face difficulties in their working relationships with government, labour or other private sector producers/suppliers which in a small island environment assume greater significance than might be the case elsewhere. Some public sector enterprises experience substantial operating difficulties, and in some cases substantial losses. The limited domestic market and the isolation of these micro-states are major constraints on the operations of established enterprises, some of which serve rather limited customer bases. Other producers are vulnerable to increased competition in neighbouring islands, as these diversify their productive base, and to changes in regional tariffs and quantitative restrictions, which have so far provided a protected business environment.

16.4. THE ROLE OF TECHNICAL CO-OPERATION IN INDUSTRIAL DEVELOPMENT

Technical assistance needs of the Caribbean micro-states are both wide ranging in scope and specialized in character in the industrial sector. The crucial constraint in the public sector is that of inadequate project identification and development skills within administrations and even development agencies which are most often hard stretched to cope with regulatory and legislative duties. The upgrading of planning activities,

including the monitoring of project implementation, is a prerequisite to the sought-after diversification of their economies. A further difficulty is that the dominance of the public sector in the micro-states may well extend beyond the supply of essential services into trading and distribution, or even production in the absence of other interested parties. Thus the public sector may assume roles and responsibilities in a micro-state which it is not always well equipped to fulfill. In the Caribbean there has been a strong inclination to encourage the private sector to play a leading role in development initiatives; nevertheless there are occasions when 'catalytic' investments, particularly in improvements in infrastructure or in joint ventures, have been a '<u>sine qua non</u>'. There is a need for technical assistance to play an informed supporting role in the public sector in such situations, as well as to provide timely and appropriate support to governments in negotiations with prospective partners, where local expertise is not adequate to the task of protecting the micro-states long-term interests.

At the same time amongst producers, there is a pressing need for the supply of highly experienced expertise to deal with organizational and technical problems in the production or supply of the goods or services, which are likely to be beyond the capacity of local industrial support services. The isolation of micro-states is not just a matter of geographic remoteness and paucity of modern systems of communications; it is also remoteness from market trends and competing suppliers, as well as from insight into changing technologies and business methods. Such specialized needs are to be met by technical assistance programmes.

APPENDIX 16.A

Manufacturing projects seeking external assistance

CONTROL NUMBER: 001325
ISIC: 3825
PROJECT NUMBER: MOT/001/V/84-10 COUNTRY: Montserrat
PROJECT TITLE: Computer Assembly
PRODUCT & CAPACITY: 50,000-100,000 small computers (desktop, portable and briefcase)/year
COOPERATION SOUGHT: JVE, AFM, MAX, TEX, TRX, MKX
TOTAL PROJECT COST: US$ 2-6 million PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: No
PROJECT STATUS: Active AS ON (DATE): 850118

CONTROL NUMBER: 001326
ISIC: 3825
PROJECT NUMBER: MOT/002/V/84-10 COUNTRY: Montserrat
PROJECT TITLE: Computer Peripheral Assembly
PRODUCT & CAPACITY: Complete units or sub-assemblies
COOPERATION SOUGHT: JVE, AFM, MAX, TEX, TRX, MKX
TOTAL PROJECT COST: US$ 1-5 million PROJECT IS: New
STUDY AVAILABLE: No LOCAL SPONSOR: No
PROJECT STATUS: Active AS ON (DATE): 850118

CONTROL NUMBER: 001327
ISIC: 3832
PROJECT NUMBER: MOT/003/V/84-10 COUNTRY: Montserrat
PROJECT TITLE: Electronic Products Assembly
PRODUCT & CAPACITY: Stators, printed circuit boards and electronic toys and games: 1,000 units/week
COOPERATION SOUGHT: JVE, SCT, AFM
TOTAL PROJECT COST: n/a PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850118

CONTROL NUMBER: 001329
ISIC: 3523
PROJECT NUMBER: MOT/005/V/84-10 COUNTRY: Montserrat
PROJECT TITLE: Hair Care Products
PRODUCT & CAPACITY: Shampoo, hair cream, hair tonic, moisturizers
COOPERATION SOUGHT: LNG, AFM
TOTAL PROJECT COST: US$ 128,000 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850118

CONTROL NUMBER: 001330
ISIC: 3113
PROJECT NUMBER: MOT/006/V/84-10 COUNTRY: Montserrat
PROJECT TITLE: Hot Pepper Sauce
PRODUCT & CAPACITY: 600 gallons/month
COOPERATION SOUGHT: EQY, AFM
TOTAL PROJECT COST: US$ 38,500 PROJECT IS: Expansion
STUDY AVAILABLE: No LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 850118

APPENDIX 16.B

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

1. The completed projects since 1972

TURKS & CAICOS ISLANDS

Backstopping Responsibility	Progr.Element (old S.A.C.)	Project Number	Project Title
IO/CHEM	(32.1.B)	SI/TCI/84/801	Development of mother-of-pearl products manufacture

BRITISH VIRGIN ISLANDS

Backstopping Responsibility	Progr.Element (old S.A.C.)	Project Number	Project Title
IO/IIS/FCTY	J12206	SI/BVI/86/801	Advisory service on procurement and inventory control
IO/FEAS	(31.6.A)	DP/BVI/77/002	Agro-industrial development

MONTSERRAT

Backstopping Responsibility	Progr.Element (old S.A.C.)	Project Number	Project Title
IO/AGRO	(31.7.B)	SI/MOT/84/801	Assistance to a garment factory
IO/AGRO	(31.7.C)	SI/MOT/77/801	Industrial application of breadfruit
IO/CHEM	(32.1.B)	IS/MOT/74/007	Production of structural ceramics
IO/CHEM	(32.1.B)	SI/MOT/74/807	Production of structural ceramics
IO/CHEM	(32.1.C)	SI/MOT/82/801	Assistance in the production of solar sea salt

2. The approved and/or operational projects

DP/MOT/86/001	IO/IIS/FCTY	J12206	Improved management through computer support
UC/MOT/86/062	IO/T/AGRO	J13101	Construction of a solar wood drying kiln

ANNEX A

THE COMPLETED AND OPERATIONAL TECHNICAL CO-OPERATION PROJECTS OF UNIDO

THE CARIBBEAN REGION

1. The completed projects since 1972

Backstopping Responsibility	Progr.Element (old S.A.C.)	Project Number	Project Title
IO/INFR	(31.3.M)	DP/CAR/74/006	Assistance to the Caribbean Investment Corporation
IO/FCTY	(31.3.00)	TS/CAR/71/001	Exploratory mission - assistance in the field of industrial management
IO/TRNG	(31.5.B)	RP/CAR/80/001	Training in standardization and metrology
IO/PLAN	(31.2.B)	UC/CAR/84/020	Regional workshop on the integration of women in the industrial planning and development process, 21 - 29 May 1984, Guyana
IO/PLAN	(31.2.D)	UC/CAR/78/128	Exploratory mission to prepare an industrial development survey of the Caribbean
IO/FEAS	(31.6.A)	DP/CAR/73/001	Industrial Promotion and Management Consultancy Unit
IO/FEAS	(31.6.A)	TF/CAR/75/001	Industrial Promotion and Management Consultancy Unit
IO/COOP	(31.1.D)	SF/CAR/83/001	Training in investment promotion
IO/COOP	(31.1.D)	TF/CAR/81/001	Expenses incurred by IIPS-NA training representatives from the Caribbean region
IPCT/II/PROM	G01202	TF/CAR/82/001	Training in investment promotion
IPCT/II/PROM	G01202	DP/CAR/83/002	Caribbean investment promotion service
IPCT/II/PROM	G01202	TF/CAR/85/001	Caribbean investment promotion service
IPCT/II/PROM	G01202	TF/CAR/86/001	Investment promotion tour to Europe
CPE/REL	(70.3.Z)	RP/CAR/84/001	Visit of two CARICOM officials to UNIDO Headquarters

2. The approved and/or operational projects

UC/CAR/86/201	IO/T/AGRO	J13101	Development of integrated industry programme for the woodworking and furniture industries sector (under completion)

ANNEX B

Official development assistance to selected Caribbean Islands, 1975 and 1980-1984[a/]
(in millions of US dollars)

Island	1975	1980	1981	1982	1983	1984
Jamaica	25.1	123.0	154.5	181.6	181.2	170.3
Trinidad and Tobago	5.4	4.7	-1.4	5.7	5.6	4.6
Barbados	5.6	14.7	17.9	12.9	19.0	8.8
Netherlands Antilles	33.3	96.6	73.6	65.0	65.1	63.0
Bahamas	0.7	2.1	2.0	1.9	0.9	10.9
Bermuda	0.0	0.3	0.2	0.1	0.1	0.1
St. Lucia	8.9	8.6	11.5	8.2	6.9	5.7
St. Vincent and The Grenadines	6.0	9.7	9.2	7.6	5.4	4.1
Grenada	3.2	3.7	6.6	6.2	7.5	27.5
Antigua and Barbuda	2.1	5.6	9.1	5.0	3.4	2.4
Dominica	7.9	18.7	15.3	17.3	10.2	16.5
St. Christopher-Nevis	1.6	6.2	3.8	3.2	2.8	3.6
Cayman Islands	1.6	1.5	1.0	0.6	0.4	0.4
British Virgin Islands	2.4	4.7	3.8	3.8	3.2	1.9
Montserrat	4.5	3.6	3.4	4.0	2.2	1.8
Turks and Caicos Islands	3.2	3.4	7.1	10.3	6.7	6.9
Anguilla	1.7	2.3	2.6	2.0	2.3	1.7

Source: UN, Specific Measures in Favour of Island Developing Countries: Report of the Secretary-General, 18 August 1986.

a/ Net disbursements of ODA from DAC and OPEC sources and gross disbursements from CMEA countries.

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