UNIVERSITY OF SURREY
Department of Management Studies

ECONOMIC DEVELOPMENT OF THE CARIBBEAN AND THE CONTRIBUTION OF TOURISM FROM AN EU PERSPECTIVE

by

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A thesis submitted in fulfilment of the requirements for the award of the PhD degree 1995
Dedicated to my parents, Christiana and Charles
This research examines the Caribbean economic development, from an EU perspective, by reviewing the economies thoroughly, and by assessing the contribution made by tourism development. The major objective is concerned with the level of development, as was ascertained from the secondary research; within the context of the general economies, tourism development, international trade, and development economics; forecasting; and the responses from primary research in the European Union (EU). The process of development with reference to the main economic activities is discussed, and analyses by the use of forecasting techniques, are done whereby some projections are made for some tourism destinations, and the OECS economies. The EU was chosen because of it’s historic trade links with the Caribbean since the Caribbean’s inception. The outcome of the investigations demonstrated the importance of the EU as a trading partner of the Caribbean in primary goods and, increasingly, in services (tourism). Tourism development has proven, unequivocally, to be the main driving force for development.

Tourism revenues have resulted in increased economic growth and, ipso facto, an increased standard of living. Because of multidimensional nature of tourism, it has also spurred other activities. Of course, tourism development is not without its many critics, largely based on social and environmental issues. However, if one considers that the economic benefits largely outweigh the social costs, the industry can be put into it's right perspective. The industry has been criticised on the grounds that it has attracted labour away from agriculture, but no evidence exists to prove that tourism is solely responsible for this displacement. Development economists largely agree that, as countries advance economically, the percentage of the factors of production employed in agriculture decreases.

The Caribbean islands are largely developing economies and only pockets of poverty exist. In comparison with EU standards, within the Western context, only the Dominican Republic and Haiti have problems with dire poverty. Haiti has not been included in this study, due to its political situation. The primary research findings
concurred to some degree with the literature, regarding poverty in Cuba and the Dominican Republic. Tourism’s success in the latter country has not been able to alleviate the overriding structural problems that have given rise to 8% of children suffering from malnutrition. This is an unfortunate circumstance that the remaining islands (except Haiti) do not experience. Unemployment however, which gives rise to relative poverty (where inequalities of wealth exist), might have lead to increased crime and security issues in Barbados, Curacao, Jamaica, Martinique and Trinidad and Tobago.

As the main economic activity, tourism has not been exploited to it’s fullest by the Caribbean nations, that is, it does not offer its maximum economic benefit. This is largely due to *inter alia*, high leakages through imports, expatriate remunerations, repatriation of profits, and long-term tax breaks, together with the lack of intra-regional cooperation and planning. The degree of local ownership is minimal, specifically concerning luxury hotels. And when local ownership is dominant, problems of hotel facilities and service quality were identified by the empirical research from the EU. The reduction of leakages can only be achieved through increased local involvement in the industry. Education, training, and international exposure are the overriding factors needed to improve the tourism product. Local investments are lacking in most of the islands, where the communities are seemingly not involved in the development process. Incentives are needed to foster, nurture and encourage local entrepreneurial activities, as therein lies the potential for further economic growth.

The Caribbean suffers from size constraints, whereas the region’s development is constrained by local factors of production. Small size is a limitation with respect to land, labour and capital, therefore the economies have to be open to increase economic activity. Regional integration and cooperation are possible ways to increase ‘size’, by realising economies of scale. Regional integration and cooperation should therefore, under Caricom, be positioned to extract the maximum benefit from tourism. Furthermore, the environmental disadvantages of tourism and other industries can be better managed, if a regional policy is enacted and enforced.
Caribbean economies are developing, and the importance of the services sector, especially tourism, offshore finances, and information technology will continue to grow. Undoubtedly, services growth will continue, as was indicated by the increases of tourists from the EU and the forecasts, and will be the catalyst for the advancement of the region’s economies.
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<td>Africa, Caribbean and Pacific</td>
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<td>CAP</td>
<td>Common Agricultural Agreement</td>
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<td>CARDI</td>
<td>Caribbean Research and Development Institute</td>
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<td>CARICOM</td>
<td>Caribbean Common Market</td>
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<td>Caribbean Tourism Organisation</td>
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<td>Organisation of Eastern Caribbean States</td>
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Acknowledgements

Thanks to God for granting me the ability and tenacity to commence and complete this thesis.

Many thanks to Dr. John Fletcher for working with me over the three years, for his guidance, good humour, and friendship.

Thanks so very much to my parents for their financial sponsorship of this degree. Invariably, without their monetary and moral support I would not have been able to undertake this task.

Thanks very much to my brother, Dean for his moral support, he has been my tower of strength. Thanks so much Dean. Thanks also to my sister, Delia, who has been supportive throughout the process.

Thanks very much to my uncle Rolston, in Bristol, whose support is greatly appreciated.

Many thanks to all the staff members at the Department of Management studies who have assisted me in anyway, in particular, A. Lockwood and Sue Kitching.

Thanks to all my friends, particularly Dr. Edward Chilton.
Chapter 1: Introduction

1. INTRODUCTION

The following treatise examines economic development and growth of the Caribbean nations in their entirety, with an oblique view of tourism's contribution to development from the perspective of the European Union (EU). The historic alliance with the EU is the underlying reason for the choice of that area as the focal point of this investigation. The discussions pertain to the region as a whole, as an interlocking economic system, based on one heritage and geographic location, disregarding language and politics. It assumes, as Lewis (1954) comments, that everyone wants to develop, and it is with this notion of economic prosperity that the study approaches the subject. Although it is artificial and idealistic to think that a group of different, yet similar, nations would become one, the economic reality points in that direction. Nonetheless, the research has also focused on the individual islands, although the minimisation of economic difficulties is viewed as a regional solution and not a local one.

The following research offers secondary and empirical evidences on the Caribbean's development problems, where the probable underlying causes are discussed. Demas (1965) studied the Caribbean in detail with tourism as a focal point, followed by Bryden (1973), Seward and Spinard (1983), and more recently, the EIU (1992). Hope (1986) reviewed the Caribbean's economic development, and looked briefly at tourism, but did so relating data to Barbados, Guyana, Jamaica and Trinidad and Tobago. Yet, without question, these studies approached development in the Caribbean from a supply point of view, rather than demand.

In 1492 Christopher Columbus made his first voyage to the Americas, and this began the marriage between the Western European powers and the Caribbean. Despite the earlier long, bitter, and turbulent relationships, smooth and mutually respected interchange has evolved. Thus, in 1992, 500 years later, as one peers into the
Caribbean’s future, one may wonder what its position will be within the Western Hemisphere’s economic development. As the world forms trade blocs: the Asia Economic Alliance (ASEAN) in the far East; the European Union (EU) in Western Europe; and the North America Free Trade Area (NAFTA) in the Americas; it is interesting to examine where the Caribbean fits into all these economic arrangements. Geographically, the Caribbean is in the Americas, yet most of its exports are sold to the EU, along old colonial ties.

The commencement of the EEC in 1957, and the UK’s entry in 1971, gave rise to the Lomé agreement, its policy instrument for trade and aid to former and existing colonies. It is through the Lomé that Caribbean trade remains. The Caribbean has progressed through the economic stages, from economies dependent almost entirely on agricultural export to the export of services. The economies originally relied on sugar production, to pockets of industrialisation, and presently relies largely on bananas export (in the Windwards), and tourism (in the remainder of the region) for economic livelihood. Today, tourism is without exception, the largest foreign exchange earner in the region, thus, its development cannot be ignored.

Western industrial nations’ economies also evolved from agriculture production to the services industries, where the economies progressed methodically through the economic stages. The evolution to services is based primarily on human capital and relationships, is knowledge specific (Nusbaumer 1987), and information has become the most important commodity. Technological advances have meant that industrialisation is increasingly automated, thus labour is left to carry on the service areas of production, where human involvement is necessary. This transition to services from industry can be said to have taken western nations by surprise, as they appear to have largely ignored the economic trend. Hence in some cases, the necessary investment in human capital to meet this new challenge had been regrettably delayed. The delay has resulted in high western structural unemployment, which is aggravated further by recessions. The transition to services has not taken place
smoothly to close the labour gap between labour employed in industry, then becoming displaced, and the need for employment in the services sectors, specifically the information sectors, through the retraining of the work force. High unemployment is one major reason for increased protectionism in the advanced nations.

In view of the aforementioned, the small economies of the Caribbean, in terms of the developed world's economic problems are vulnerable, and suffer through barriers of trade, as a result of this protectionism. They depend almost entirely on the economic well-being of the advanced Western nations for trade in agriculture and services. Trade in goods, specifically trade with the EU, continue to be marginalised, while trade in services indicates an upward trend.

These activities are strongly dependent on the advanced western economies' rise in disposable incomes, which tend to increase as productivity rises. High productivity would mean higher levels of economic growth, and higher per capita incomes. As demand is derived from these areas, increases in disposable income should suggest increases in demand for Caribbean services. Tourism (among other services) is income elastic, thus, downturns in the economies of the generating countries would have adverse effects on the Caribbean's economic situations in that period. Examples resulting from high income elasticity of demand was witnessed in the 1970s during the oil crisis, and the 1980-82 and 1989-92 recessions, when total arrivals figures declined due to economic downturns in the generating countries economies. The result of lowered arrivals, lowered tourism earnings and a slow down in the Caribbean economies ensued.

The future of tourism in the Caribbean will remain pivotal to economic development, because this is where the Caribbean's comparative advantage lies. Increases in potential tourism demand from the EU has showed an upward trend over the last four years (1990-1994), and should be fostered. This increase in total arrivals is due in part to the marketing efforts (Travel Weekly 1992, Troy 1992) of the Caribbean
Tourism Organisation (CTO). In 1992, Western Europeans accounted for only about 17% of total arrivals, while two-thirds arrived from North America. The foregone suggests, that there is scope for further increases in arrivals from the EU.

An important issue to be addressed is whether the relationship between the Caribbean and the European Union will survive the next 500 years. The short-term view would be positive, given the interest shown by the EU in terms of the funds given to the area for infrastructure development, and to promote tourism from the EU area under Lomé (Sutton 1991). In the long term however, it is less certain and aid under the Lomé will not be indefinite. Trade will undoubtedly remain and grow, and this growth will continue to be in services. However, due to increased economic cooperation between nations, and as the global economy merges, there is a strong possibility that amicable relations will be sustained.

The Caribbean’s earlier relationship with Western Europe, and its economic history up to emancipation is discussed briefly in Chapter two. This chapter serves as the background to an introduction on the Caribbean region and the relationship with the EU in a historic framework. During the earlier years, the means of production were dominated by an abundance of land on over 2,000 islands, with relatively close proximity to each other. Settlement could be accomplished relatively quickly on the larger ones, although the warring Caribs supposedly rendered it difficult at times; Labour was procured by enslavement and indenturement, based on mercantilism ideologies (where earlier empire builders used this mode of labour); and capital was raised from the European aristocracy, speculators and businessmen.

Post emancipation economic occupations were mainly that of export agriculture, with less evidences of a peasantry (Ward 1961) than ‘undisturbed’ civilisations. The economic history is followed on by an outline of the islands’ present economic activities up to 1992 in chapter three, which shows the breakdown of region’s economic sectors. Tourism took form in the 1950s, but agricultural exports remained
dominant, whereby this is clearly pointed in chapter three. The degree of economic growth and development, evidenced by increasing per capita incomes, has been phenomenal in the OECS islands since independence in the latter half of the 1970s, and 1980s (The World Bank 1994). The economies had, for the most part, shifted from agrarian based societies, to manufacturing, and in keeping with world trends, to services. Service based Caribbean economies are epitomised largely by tourism, and, to a lesser extent by offshore financial activities. Tourism is unequivocally the most significant industry in the Caribbean economies. Without exception, wherever it is even mildly successful in the region, it has contributed extensively to GDP growth.

Tourism has contributed the highest value added to GDP, especially in the case of stayover visitors where the average spending per capita could be as high as US$1200 (Antigua and Barbuda, Bermuda and the Caymans). This high value added renders it the largest foreign exchange earner. Moreover, it is the primary generator of jobs as tourism has resulted in increases in direct and indirect employment opportunities and entrepreneurial activities. In some cases, such as on Anguilla, Antigua and Barbuda, Bermuda, and the Caymans, it has effected near full employment.

Increases in tourism activity however, are highly correlated to increases in imports. Tourism however, is not to be blamed wholly for the Caribbean’s high propensity to import. The traditional concentration of agriculture cultivation for exportation, to the detriment of local food production and food self-sufficiency is the main culprit (Bélisle 1983, Farrell 1983). Nevertheless, tourism also lends a positive economic benefit, because it provides the foreign exchanges to pay for the high import volumes, so endemic to the region. And, the invisible earnings reduces the region’s trade deficits.

Chapter four reviews the EU and its implications for the Caribbean, where the EU/Caribbean trade is discussed from the beginning to the present. This chapter is a follow on from the history and present day economic situation in the Caribbean,
whereby chapter four also falls within the treatise's background chapters, with special emphasis on Caribbean international trade with the EU. Chapter four's intent is one whereby the reasoning behind the choice of the EU in this study can be understood.

The Lomé Convention is discussed in detail in chapter four, because Caribbean trade with the EU is negotiated under the Lomé Convention, where the Caribbean is grouped with ACP (African, Caribbean, Pacific) nations, which provides preferential treatment for the purchase of Caribbean goods. The Lomé IV was negotiated in 1992 and the question of Caribbean bananas was an issue of formidable debate. The privilege continues, but will be negotiated again in 1997, when Lomé V will be discussed. The Windward islands have suffered economically from the subsequent lower export prices, and are increasingly pursuing tourism development. In the 1992 Lomé discussions, tourism was mentioned for the first time as an integral part of Caribbean trade with the EU. This is an obvious indication that, the continued development of tourism in the Caribbean has been noted by the EU, and subsequently, tourism product development in the region has been funded by the EU.

The offshore financial sector has been successful in Bermuda, the British Virgin Islands (BVI), the Bahamas, and the Cayman Islands, and is currently pursued by almost all of the islands. It is seen as an additional export service activity, and a means by which service led economies can diversify to reduce dependence on tourism.

Chapter five outlines the methodology used throughout this research. Studies of the Caribbean have largely highlighted tourism's weaknesses, while disregarding its role as a contributor to the economy. Where it is heralded as a good economic option, it cites the usual contribution to balance of payments. To date, no study has looked closely at the development of the region and how tourism relates to that development, using empirical research. Indeed, none has done so from the demand side. The method is unique, employed in the sense that it examines demand, in order to obtain information to improve supply.
Tourism from the EU has grown over the six years from 1986 to 1992, by only an average of 1.82% per year, although some destinations have had considerably high increases in subsequent years. For example, Antigua and Barbuda has had an increase in tourism arrivals of approximately 20% in 1994 from the EU. However, detailed projections are discussed in chapter six, which focuses on forecasting, the future of Caribbean growth trends and tourism demand. This chapter indicates the potential of tourism's contribution in arrivals only, to the Caribbean from the EU, by use of forecast techniques. By forecasting future tourism activity, it is possible, given the dominance of this industry in the region, to derive forecasts relating to future economic growth.

Due to the limitations of data collection and time, only the Organisation of Eastern Caribbean States (OECS) economies were studied. A successful completion of an economic review of the OECS islands, utilising the disaggregated components of GDP is germane to any study of an economic area. It is essential that the sectors that are pertinent to the economy's functioning be identified. This knowledge would aid policy makers in devising strategies to effect the most benefit from the successful areas, through planning and development. The sectors that are weak would be identified from the model, and methods to improve their viability can be devised. The model is limited as it cannot reliably predict the feasibility of an activity that has never existed in an economy. Therefore, if an activity is introduced or the trend changes, only over time, preferably over a ten year period, could the future impact on the economy be assessed. The OECS model is discussed in chapter seven, and is only concerned with current variables that can be used for predictive purposes. This chapter follows on from chapter six's discussions of forecasting, and adds the economic development dimension, as there the disaggregation of the economic sectors was forecasted.
Chapter eight provides a detailed examination of the empirical findings of the primary research. This chapter discusses the findings based on issues, and points out the significance of the problems as they relate to each island’s development.

Chapter nine discusses the explanatory variables that may have resulted in the deficiencies of each island, and follows on from chapter eight. In this chapter, the secondary research remained pivotal to the deliberations on the findings, as it was there that the explanatory variables were derived. Chapter nine marries the primary and secondary research on economic development and the Caribbean development, to afford details on the empirical results. Regression analyses are undertaken in this chapter, to determine causal relationships, from which predictions may be inferred. Economic data obtained during the secondary research are used, in an attempt to explain the weaknesses in the economic and social framework of those islands with problems.

The treatise is concluded in chapter ten, with an overview of the research. The primary and secondary research, including the empirical findings are restated and brief discussions of each are outlined.
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2 CARIBBEAN ECONOMIC HISTORY

2.1 GEOPOLITICS

The Caribbean is viewed as one region, whereas individually the islands are diverse, linguistically, economically, politically, and socially. Aspects of each society within the Caribbean area render each island unique, with distinctive features. One hopes that generalisations, made by the use of information that refer to the area in the aggregate as an economic and trade region epitomised by the Caribbean Common Market (Caricom), are not limiting. But that this uniqueness would serve to prove *sui generis*, the feasibility of further cooperation and integration, as the islands are much too small to gain full economic development.

The Caribbean is an archipelago of about 2,000 islands but, politically, there are approximately 50 island states. The region spans some 2,500 miles between Mexico’s Yucatan peninsula and the North American coast, to the top of South America. The chain of islands stretches from The Bahamas, off the coast of Florida, United States of America, and includes the Greater Antilles of Cuba and Hispaniola in the North, to Trinidad and Tobago and the Netherlands Antilles off Venezuela in the south. Since Bermuda has all the characteristics and the shared colonial history of the Caribbean islands, it will be included in the discussions of the Caribbean, although geographically it is not a Caribbean island. Haiti is, regrettably, left out of the discussions because of the political situation that has left the economy in disarray. The American islands (Puerto Rico, and the USVI) are also left out because their economies are overshadowed by the United States’ foreign policies, and the treatise concerns the direct rapport between the Caribbean and the European Union.

The region is split geographically into the Greater Antilles and the Lesser Antilles, based on land size only. Cuba is the largest and most populous, with about 114,524
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square kilometres, and in 1989, a population estimated to be 10.51 million. It has an average population growth rate of 1.1 per cent per annum. The second largest island is Hispaniola, with 76,484 square kilometres, distributed between the Dominican Republic (Spanish speaking), the second largest territory in terms of land size, 48,442 square kilometres; and Haiti (French speaking), the region's poorest island. The Dominican Republic is one of the most mountainous with peaks rising to more than 3,000 feet above sea level. The country had an approximate population of seven million people in 1992, the most populated in the entire region. The 2.2 million people living in the capital city of Santo Domingo, account for urbanisation of 32%, with a life expectancy of 59.6 years old. Jamaica has only one tenth of the area of Cuba at 10,962 square kilometres, and had a population of 2.45 million in 1990, with 37% urbanisation (one of the highest in the region). These islands however, face persistent development problems due to continual expanding populations, and inadequate social and economic systems.

The islands south of Puerto Rico (US territory), east of the Greater Antilles (the larger islands), with Barbados being the most easterly, are called the lesser Antilles, or the Eastern Caribbean. The Lesser Antilles are divided further into Windward and Leeward islands, due to the path of the trade winds, where the islands south of Guadeloupe are the windwards and the remaining islands to the north, are the Leewards. The Greater Antilles also are part of the Windward group of islands.

The state of Antigua and Barbuda is the largest nation of the Leewards with 441 sq. km, and a population of approximately 67.1 thousand in 1991. Conversely, Trinidad and Tobago are the largest, about 5,128 square kilometres, and a population estimated in 1989 to be 1.23 million in 1991. The Grenadines are among the smallest with just a few square kilometres each, and except Mustique which is privately owned, the remaining islands are shared mostly by St. Vincent and to a lesser extent by Grenada. St. Vincent and the Grenadines have a combined 389 sq. km, with a population of 107.6 thousand in 1991. One of the tiniest islands is Saba, part of the Netherlands
Antilles with just about 1.3 square kilometres, and an estimated population in 1990 of 1,500 inhabitants.

Climatically the region is subtropical and oceanic, blushed with warm temperatures varying between (23 and 34 degrees centigrade), experiencing few extremes, and considerable variation in rainfall. Some islands possess rugged terrains with mountainous interiors and tropical rain forests, and almost all have low coastal plains fringed by the Caribbean sea and the Atlantic ocean. The greater Antilles' central mountains are fortified by alluvial floodplains, are well irrigated along the northern coasts, but quite arid along the southern littorals. Along the southern plains are uplands and savannas, suitable for agricultural activities and industrial production. The lesser Antilles can be categorised into two geographic groups. One that is flat, arid, and relatively infertile, and the other that is ruggedly mountainous, with tropical rain forests, well watered and quite fertile. It is this diversity of geography that moulded the types of economic activities. The most notable economic organisation was in agricultural production, which was undertaken in the region from the beginning of its European related history.

Diversity is not specific to geography however, as when one discusses the history and culture of the islands (Hudson 1989), all have conspicuous impacts of European influences in language, religion, customs and even folklore. Thus, if one viewed the islands in subregions, based on language, the general diversity of the region remains. Geographic diversity meant that the smaller islands were effectively easier to occupy and colonise than the larger, mountainous islands with heavily forested interiors. The terrains of the smaller islands, Barbados, St. Kitts and Antigua, lent themselves to easy formations of agricultural life, epitomised by the earlier predominance of sugar cultivation. Today, it is again the terrain and the climatic condition that render the islands most suitable to tourism investment and to be recipients of increased tourist trade. Indeed, they are among the most prosperous islands in the Caribbean.
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Agriculture remains the most important industry on the more volcanic Windward islands and tourism the most important service sector.

The Bahamas are a 750-mile archipelago of 700 islands and 2,000 islets and cays, a total area of 13,935 sq. km, spanning 60 miles off the United States mainland of Florida to Cuba, of which only 14 are inhabited. The main inhabited islands are New Providence, Grand Bahama, 1372.7 sq. km, Eleuthera, 518 sq. km, Abaco, 1683.5 sq. Km, Exuma, Andros, 5,957 Sq. km, Harbour island, Spanish Wells, Cat Island, Long Island, Mayaguana, San Salvador, Inagua and Bimini, with a total population in 1992, of 253,000 inhabitants. The Bahamian island of San Salvador was the first island that Columbus landed on in the New World. During the following 25 years, the Spanish systematically removed the native Indians to Hispaniola and Cuba. In 1629, the Bahamas were granted to the British by Charles I, but in 1633 France claimed the islands. It was not until 1648 that a settlement was founded, when some English Puritans from Bermuda settled on Eleuthera. The islands became a British crown colony from 1717, becoming self-governing in January 1964 and fully independent of the United Kingdom in July 1973.

The Cayman Islands comprise three distinctly English islands, totalling 260 sq. km or 100 sq. miles. These are situated 180 miles northwest of Jamaica, of which the largest and most important is Grand Cayman, where the capital, George Town is located. The two other Caymans are Little Cayman with an estimated size of 10 square miles, and Cayman Brac of 14 square miles. There is an estimated population of 25,080 people (1992). Christopher Columbus landed in the Cayman islands in 1503, calling them Las Tortugas because of the turtles that were present. The islands fell under British rule by the treaty of Madrid in 1670, annexing to Jamaica in 1863, and were later separated in favour of self-rule in 1962. The islands have British Colonial status, with an appointed governor, similar arrangements exist on Bermuda, the BVI, and Montserrat.
Bermuda is a group of 150 islands, but only 20 are inhabited, situated 580 miles off North Carolina, in the Atlantic Ocean. The island of Bermuda comprises seven larger islands, connected by causeways and bridges, totalling 54 sq. km, and an estimated population in 1990 of 60,600 people. Although there is only 5.78% urbanisation, (3,500 live in the capital of Hamilton, the lowest in the Caribbean), it is one of the most densely populated islands in the region. Bermuda was settled in 1609 by the British and has political stability, and close ties to the United States. Other than the Cayman islands, it has the highest per capita income in the Western world, and about fourth in the world after a couple of the Arab oil producing countries. Like the Caymans, it is a dependency of the United Kingdom with a Governor, and a Premier. The question of independence is an important issue favoured by the government, but opposed by the majority of Bermudians.

The British Virgin Islands (BVI) are part of the leeward group, located 60 miles east of Puerto Rico, North-east of the US Virgin Islands (USVI), and are a group of 40 islands. These islands form a circular path around Tortola, an island of 24 square miles, where the capital Road Town, is situated. About a third of the islands are populated, mainly on Tortola, but also on Virgin Gorda of nine square miles, Anegada of 13 square miles and Jost Van Dyke of 4 square miles. Anegada is a limestone block with an altitude of no more than 30 feet. In contrast, Tortola and Virgin Gorda are somewhat mountainous with peaks rising to 1,760 feet and 1,370 feet respectively. The political system is stable and conservative, concerned mainly with the main objectives of managing the economy, tourism, workers’ security, and creditors of the offshore financial sector.

Antigua and Barbuda are also part of the leeward group, with a size of 445 sq. km, and a population in 1991 of 65,962, and uninhabited Redonda. The island-nation lies in the heart of the chain, 250 miles southeast of Puerto Rico. The climate is dry, similar to the BVI, and the interior is sprawling with low-lying hills, which were deliberately cleared during the sugar days for the planting of sugar cane. The cleared
areas were vast, almost island-wide, allowing one to deduce that sugar cultivation must have been widespread. The littorals cascade towards 365 beaches creating a magnificent coastline, perfect for 'resort' tourism. The islands were colonised in 1632 by the British, remained under British rule, and changed hands briefly once to the French for a year, in 1666 to 1667. Independence was granted in 1981, within the Commonwealth.

Barbuda is northwards from Antigua, 25 miles away in a shallow submarine bank. The representative in parliament is an independent chief minister, but the islands' affairs are administered in Antigua. The terrain is overwhelmingly low-lying, about two-thirds are flat, and the remainder is a monotonous plain only a few inches above sea level, rising to 200 feet on the eastern side, where some steep sloped, flat topped coral terraces rise. The island is susceptible to droughts, thus allowing for limited agricultural activity, comprised mainly of food-crops, corn, peas, livestock and fisheries.

The Turks and Caicos Islands are a group of 30 islands south of the Bahamas, with a total area of 193 square miles, and about 12,350 people who occupy only eight islands permanently. The capital is Cockburn Town on Grand Turk, home of 3,100, representing 25% urbanisation. In 1492 Christopher Columbus sighted the islands, and that was followed by a turbulent history of political instability. The islands changed hands from the Spanish to the English, and the French, followed by annexation to Jamaica and to The Bahamas. In 1986, the island came under direct British rule, similar arrangements exist to those in the Cayman islands and BVI.

The Leeward Islands, other than Antigua and Barbuda, are St. Christopher and Nevis, known more commonly as St.Kitts and Nevis, separated by a two-mile channel, located 27 miles southwest of Antigua. Anguilla is situated 6 miles north of St. Martin, and Montserrat is midway between Guadeloupe and Nevis. The largest is St. Kitts with 269 square km; and Nevis with 93 sq. km; Montserrat has 102 sq. km; and
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Anguilla 91 sq. km. The most populated is the island nation of St. Kitts and Nevis with 41,960 inhabitants, followed by Montserrat with a population of 11,935, and Anguilla’s 7,200 people. The political constitutions of the islands are democratic, parliamentary systems, based on the British model.

The 1980s proved to be the decade of economic diversification, so needed on St. Kitts, where tourism became a focal point and the priority to aid in that process. The twin island nation became independent from Britain in 1983, but maintains the British Monarch (as have Antigua and Barbuda), as head of state, headed by a Prime Minister. Anguilla and Montserrat are British dependent territories, with ministerial political systems, where the British crown is represented by a Governor. However, unlike Anguilla, Montserrat is self-governing with a Premier, where the governors preside over executive councils, similar to that of the Turks and Caicos islands. After Anguilla’s cessation from St. Kitts and Nevis in 1982, when it was unwillingly a federation since the 1960’s, the islands opted for the current political system.

The French Caribbean, called ‘départements d’outre mers’ by France, are dependent territories of France, with earlier parallel histories to those of the Anglophone Caribbean. Whereas the Anglophone islands, in most cases, opted for independence from Britain, the French islands gained closer ties with France. The two principle islands are Martinique and Guadeloupe, with representatives in the French parliament since 1871. They became French overseas departments in 1946, and a fully-fledged region of Metropolitan France in 1974. The local governments are administered by a Paris-appointed Prefect, each represented by four deputies in the French National Assembly. Independence is a focal point of the local politics, especially on Guadeloupe, however independence or sovereignty for the French Caribbean is not an issue in France’s politics. Therefore, the much needed decentralisation programme that has been implemented in the French Antilles, gave more regional autonomy, and is probably France’s way of distilling that issue.
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The seven islands that are Francophone Caribbean are Martinique, lying between Dominica to the north and St. Lucia to the south, and Guadeloupe and its dependencies, southeast of Antigua. St. Martin shares an island with Dutch St. Maarten, an agreement dating back to 1648 and ratified in 1816, and is situated 6 miles south of Anguilla. St. Barthelmey, known more commonly as St. Barts, is situated 20 miles southeast of St. Martin. Marie Galante and Les îles des Saintes are situated 30 miles southeast of Guadeloupe, and La Désirade is east of Grand-Terre. The largest of the islands is Guadeloupe with 1,372 sq. km, a population of 386,000 in 1991 with two main cities one on each side, Basse-Terre and Grand-Terre. Basse-Terre is the capital city with 6.5% urbanisation, and the commercial city is Point-à-Pitre, where 25.91% of the population resides. Guadeloupe is actually two islands shaped in the form of a butterfly, where the wings are divided by a narrow channel, the Rivière Salée, about 4 miles long and 17 feet deep. The western half, Basse-Terre belongs to the volcanic arc of the Lesser Antilles and is traversed by a forested mountain range, home of the highest peak, a volcano called La Soufrière that rises 4,870 feet above sea level. The geographic make-up renders this side conducive to economic activities surrounding agriculture. The eastern half in contrast, Grand-Terre is a low limestone plateau, eroded to the point that there are only wooded hills rising from 200 to 300 ft, which is more convenient to tourism resort development.

Martinique has an area of 1,080 sq. km, and is part of the windward group with a population of 359,572 in 1991. Its capital is Fort-de-France with 27.8% urbanisation. Martinique like Guadeloupe is mountainous with a volcanic interior where the highest peak is called Montagne Pelée (Mt. Pelée), rising 4,700 feet in altitude, with an active volcano. The volcanoes of Guadeloupe and Martinique have not erupted for the last 92 years or more, but the danger of them doing so are still eminent. In 1902, when Mt. Pelée erupted, only two people survived from the town of St. Pierre, previously populated with 30,000 people. It has erupted two other times this century, in 1929 and 1932, and is a factor that could affect tourism demand, albeit in the short-term, in the event of eruption.
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The Commonwealth of Dominica, known mostly as Dominica, is the first island in the chain that is windward, situated south of Guadeloupe. It is the most northerly of the windward islands, with an area of 748.5 sq. km and a population in 1991 of 71,794. Dominica’s topography is the most mountainous in the region, with a somewhat impermeable interior. There are masses of peaks, ridges, ravines, more rugged than Switzerland, and just as impressive, with about 365 rivers and rivulets. Its inner core is exactly as one would expect an unspoilt, remote destination, with unimaginable natural vegetation and beauty. There are many peaks rising between one to over four thousand feet above the sea, but it is the steepness of the terrain *sui generis* rather than altitude that renders Dominica remote, as most of the island is inaccessible. The island is almost all volcanic, evidence by the soil, rocks, fumaroles and hot streams. Dominica experiences rain almost daily, which has resulted in some of the most interesting deciduous rain forests in the world. These natural endowments would attract eco-tourists, but the potential for mass tourism is limited, as the volume of traffic through the forest would destroy the environment. Eco-tourism in Dominica caters to a limited number of naturalists, and is not enough to serve as a panacea to the country’s economic ailments.

Earlier settlement of Dominica by the Europeans was difficult because of the rugged and forested interior that provided a natural refuge for the Carib Indians. Settlement was delayed for two hundred years after Columbus’ sightings in 1493, until 1660 when it was possessed under Franco-British treaty when plantations were set up under the French governor. Consequently, rivalry between the French and the British resulted in Dominica changing hands several times, until finally in 1805 it became a British territory. There are still, even today, evident French influences, *differentia specifa*, a mixture of British and French colonial influences, and a French patois is spoken widely. The island became, similarly to the Anglophone Caribbean associated with Britain in 1967, with full autonomy in internal affairs. Dominica became independent in 1978 and chose republic status within the Commonwealth as had Trinidad and Tobago. The ministerial power rests with an elected Prime Minister,
who along with the opposition leader appoints a President as Head of State. Dominica is the only island in the Caribbean to have set aside a territory for the Carib population. It is approximately an area of 3,000 acres on the windward coast, where they cultivate food crops and fish. Although they have lost their language, they have retained basket-weaving and other traditional crafts.

St. Lucia is situated 21 miles south of Martinique, and 26 miles north of St. Vincent and the Grenadines, with an area of 238 sq. km, an estimated population of 151,300. The island is volcanic, with a mountainous south side and a number of peaks rising over 2,000 feet. Including, there are deep gorges, rivers and sulphur springs and an older northern side, where one can find volcanoes, hills, and wide, flat bottomed valleys.

The British, under Sir Thomas Warner, after setting up a base on St. Kitts for exploration and settlement of the Caribbean islands, attempted at settling St. Lucia in 1638. As with Dominica, this proved a most formidable task as the Caribs were more powerful, forcing them to withdraw. A few years later, the French's attempts at settlement were successful until 1803, when St. Lucia became the most disputed island in the Caribbean. Subsequently St. Lucia changed hands more than 14 times between the French and the British, before finally succeeding to the British. St. Lucia became an internally self-governed nation in association with the UK, gaining full independence in 1979.

St. Vincent is situated 21 miles south of St. Lucia and 100 miles west of Barbados, and The Grenadines. The Grenadines are a group of over one hundred islands lying south towards Grenada, the largest Bequia, Mustique, Canouan, Mayreau and Union. The most southerly islands are dependencies of Grenada. St. Vincent, an area of 389 sq. km and an estimated population in 1991 of 107,598 are a jumbled array of peaks, ridges and ravines, rivalling Dominica for rugged beauty and mountainous ranges. The main island of St. Vincent is entirely volcanic with two volcanoes, including the
second active volcano in the Caribbean. It is a young volcano called Soufrière that reaches about 4,078 feet, situated only 2 miles from the sea. South of Soufrière is a broad trough giving rise to the second volcano Morne Garu, 3,523 feet in altitude. The island had been, as had Dominica, somewhat impermeable, with road building across the island, virtually impossible.

St. Vincent was the stronghold of the Carib Indians, rendering it the last island in the lesser Antilles to be colonised by Europeans. Indeed to gain a foothold, the earlier French and British settlers had to sign treaties with the Caribs in order for settlement to have been a reality. The island was sighted on Columbus' third voyage in 1498, but not until the treaty of 1773 with the Caribs did any settlement take place on St. Vincent. However, from 1626 the island was disputed, like so many other islands, by the English and the French, succeeding finally to the British by the Treaty of Versailles in 1783. The Carib war between the Caribs and the English in 1795, resulted in the expulsion of the Caribs to Ruatan, an island off Belize in 1797. Compounded with the dispute of territory between the English and the French, were disputes and wars among the Caribs and the Caribs who had mixed with the runaway enslaved Africans, the so-called Black Caribs. The eruptions of Soufrière in 1718, 1812 and 1902, killed many pure-blooded Caribs, thus today, the remaining Caribs are descendants of the Black Caribs, but their numbers are small. Soufrière erupted in 1979 and in 1980 another disaster struck, a hurricane, both of these disasters rendered severe damages to the already impoverished nation.

In 1925, the Legislative Council was inaugurated, and in 1951 Universal adult suffrage was introduced. In 1958, St. Vincent, in common with all the Anglophone Caribbean, joined the Federation of the West Indiés that dissolved four years later. St. Vincent and the Grenadines gained association status with Britain in 1969, and attained full independence in 1979. St. Vincent and the Grenadines are a British Constitutional Monarchy, with the British Monarch as Head of State, represented locally by a Governor General, appointed on the advice of the Prime Minister.
Grenada, located south of the Grenadines, and north of Trinidad and Tobago, includes the Grenadian islands of Carriacou and Petit Martinique. Together they make up an area of 133 sq. km, and a population in 1991 of 91,158. The northern tip of the island is limestone, and the remainder all volcanic, with a number of ridges surmounted by several peaks rising over 2,000 feet. Grenada is a parliamentary democracy within the Commonwealth, electing the British Monarchy as head of state, after independence, in 1974. The Monarch is represented locally by a Governor General, who is appointed on advice of the Prime Minister. The political situation in Grenada has not been always so simplistic. In 1979, the People's Revolutionary Army, under Maurice Bishop overthrew strongman Sir Eric Gairy's administration, partially because of his long rule and slothful government. In 1983, Bishop who was friendly with Fidel Castro and had links with the Ex-Soviet Union was inexplicably overthrown and assassinated. The debacle resulted in a hasty unconstitutional military invasion of the United States of America. Parliament and the democratic process were restored in 1984, followed by democratic elections in 1990.

Barbados is the most easterly island in the Caribbean, 100 miles east of St. Vincent in the Atlantic Ocean, and as Bermuda it does not lie directly in the Caribbean sea. Columbus never landed or sighted it, nor is it part of the Leeward or Windward chain, however it is a part of the Lesser Antilles and Eastern Caribbean. It was sighted in 1536 by some Portuguese sailors, and because the island was covered by bearded fig trees, it was called Barbados or bearded one. The area of the island is 430 sq. km, and in 1992 the population was 275,082, rendering it one of the most densely populated in the Eastern Caribbean, with high urbanisation of 39.1%. The island is flat, where the highest point is just over 1,100 feet in the north centre, with coral reefs and clay deposits, and a dry climate, with mean temperatures of about 26 degrees centigrade. Its climate and geography unlike its neighbouring Windward islands rendered it suitable to ‘resort tourism’ and agriculture that requires very little rain.
In 1843, nine years after emancipation, the first black representative, Samuel Jackman Prescod, was elected to the Assembly and in 1885, Barbados was given its own separate government. Women got the vote in 1944, and two years later party politics developed under the ‘Bushe experience’, with adult suffrages being introduced in 1950. Sir Grantley Adams became the first premier in 1954, when Barbados became an associated State with Britain. Barbados is one of two islands that has remained under one rule since colonisation, becoming fully independent in 1966, celebrating 353 years of parliamentary rule in 1966. It is a democracy within the Commonwealth, a Constitutional Monarchy with the British Monarch as Head of State. The Monarchy is represented locally by a Governor General, but administerial power rests with the Prime Minister.

Trinidad and Tobago, a total area of 5,128 sq. km, of which Trinidad is 4,828 sq. km, and Tobago is 116 sq. km. The estimated combined population is 1,213,923, the largest island nation in the Eastern Caribbean, both in terms of area and population. Trinidad and Tobago are the most southerly island nation, nested at the end of the archipelago, seven miles from Venezuela’s coast. Geographically, Trinidad and Tobago are part of the South American continent, compared with the Northern Caribbean including the Leewards, which are geographically part of North America. Trinidad was estimated to have been severed from Venezuela, about 100,000 years ago, when the southern region was lifted out of the water. Tobago is only 20 miles northeast of Trinidad, separated by a sea passage, and is different from Trinidad geographically. It is drier and flatter with coral reefs, and no recent volcanic activity, thus lending it to good beach life, dubbed ‘the Robinson Crusoe island’. The islands are tropical, quite warm, averaging about 33 degrees centigrade, similar to Barbados, as they are nearer the equator and outside of the trade winds paths.

Christopher Columbus landed on Trinidad and Tobago in 1498, but it took another thirty years for Europeans to settle there. It was the home of the peaceful Arawaks, who were genteel farmers, ethnically similar to the Caribs but reportedly different in
temperament. The Arawaks were enslaved by the Spaniards in 1528, and forced to toil on the land. But as the Spaniards were preoccupied with gold and mineral pillage, and none could be found on these islands, overall development had been slow. A few Spanish plantations cultivated cocoa that was found growing wild, exported it to Spain, until tropical diseases caused the settlements to be abandoned, hence by 1733 the number of Spaniards fell to almost nil.

In the aftermath, Spain actively encouraged foreigners of the Catholic faith to settle on Trinidad and Tobago in 1783, especially the French including some from Canada. Still, others settled from the islands in the Lesser Antilles acquired by Britain, while others fled from Haiti, during the Haitian uprising and the French Revolution. The French settlers brought coffee and new varieties of cocoa, cotton and sugar cane, crops that flourished remarkably well in the region. Thus, when in 1797 the British possessed the island, agriculture was well established on Trinidad. Tobago became almost as highly disputed as St. Lucia, fought over by the English, the French and the Dutch, changing colonial powers often over the centuries, before becoming an English colony in 1797. Trinidad and Tobago achieved full independence from Britain in 1962, and in 1976 voted for Republic status within the Commonwealth as Dominica. The President is Head of State, who is elected by an electoral college similarly to the US, consisting of both houses of Parliament, but executive power lies with the Prime Minister.

The Netherlands Antilles, two groups of five islands separated by 600 miles of Caribbean Sea, St. Eustatius and Saba in the northern region, part of the Leeward Island group, northwest of St. Kitts, and east of Puerto Rico. Included in the northern group is Sint Maarten, shared with French St. Martin, Bonaire and Curacao in the south, north of Venezuela. Although Aruba acquired 'Status Aparte' in 1986, it will be included in the discussions on the Dutch Caribbean. The total combined land area is about 937.33 sq. km, and the population were an estimated 249,000 in 1991, with as diverse an ethnic mix as Trinidad and Tobago. There are an estimated
85% black and mixed race, including Carib Indian, European, Hispanic and peoples of Chinese extraction on Aruba.

Aruba has a royally appointed Governor General and a 21-member parliament (Staten), a democratic government led by a Prime Minister. The other islands have been self-governed since 1954 where the Dutch crown is represented locally by a governor, in addition to an appointed executive body. The council of ministers is a 22-member elected assembly, comprised of 14 from Curacao the seat of government, three each from Bonaire and St. Maarten, and one each from Saba and St. Eustatius. Each island elects an island council who governs internal affairs, excluding police, finance, telecommunication, education and health. Sint. Maarten is on the southerly side of the island it shares with St. Martin, and because of colonial protocol, a number of irrationalities have caused duplicity of functions on such a small island. For example, there are separate water purification plants, electricity substations, and police forces, wasting energy sources and human effort, which lead to inefficiencies. There are no extradition treaties between the two sides, ipso facto a safe haven for drug and other illegal smuggling.

The Dutch preoccupation with Caribbean territories during the 17th century is a departure from the British, the French, and the Spanish. The former European countries were preoccupied with colonisation, empire building and wealth accumulation via the sugar trade. The latter were interested principally with gold, and to a lesser extent colonisation. The Dutch was more interested in salt to be used as a preservative in their North Sea herring fisheries, found on St. Maarten. Bases to be used as trading posts were established on Curacao and St. Eustatius, considered the wealthiest entrépots in the region, at that time. But similar to their European counterparts, and even more so, they were heavily involved with the trading of enslaved West Africans, thus when in 1781 the British captured St. Eustatius, the goods and enslaved peoples fetched an astounding (even in today’s terms) approximation of £4,000,000, in an era when prices were extremely low.
Similarly all of the colonial powers have had a firm hold on the Caribbean, and occasionally this still holds true today. The overall question that comes to mind is whether the long colonial rule, and the way it was done have helped or hindered the region's economic development. It is fair to say, that the socioeconomic structure as is in place today would not be apparent without imperial rule, albeit more humanely. Perhaps if more sugar profits had been reinvested in the smaller economies, the region would be more advanced. One can argue that the advancement of Bermuda, the Caymans, and Barbados might be due to, reinvestment and proper planning. In addition, the problems that plague the more populated islands, might be due in part to the continued rigidity of the social system that continues to keep the masses at subsistence levels.

2.2 TOWARDS THE 20TH CENTURY

In 1834, the English Caribbean was granted emancipation, and the French and Dutch Caribbean followed soon afterwards, but on Cuba slavery persisted for another 54 years to 1888. The following years were particularly harsh for the blacks, coloured and poor whites, who toiled on the plantations for extremely low wages. Nonetheless, the blacks were more interested in their livelihood than loyalty to their previous task master, yearning for a plot of land of their own, denied them by the plantation owners as a means of ensuring a continued supply of exploited labour. Initially, they were forced to maintain jobs on the plantations but increasingly a life outside the plantation evolved.

Post-emancipation villages were established on freehold or leasehold tenure on plantation estate boundaries, which gave rise to peasantry. The villages were established along the sides of steep ravines, too steep for profitable sugar cane cultivation, and on lowlands using marginal land that was not conducive to profitable crop yields. Peasantry proved more successful in the Windward islands of Dominica, the Dominican Republic, the French Antilles, St. Lucia, St. Vincent, Jamaica, and
Trinidad and Tobago, as they were relatively larger and more fertile. Due to *inter alia*, land prices, the availability of arable land, and rainfall patterns, the leeward islands had less evidence of peasantry.

Sugar production once so successful on Jamaica fell continuously, at first rapidly during the early part of the nineteenth century, followed by a steady decline to present levels. Many reasons are given for the rapid decline of the nineteen century, among them the large percentage of absentee plantation owners, extravagance, and the subsequent failure to invest in labour saving and production techniques that were in use in Cuba.

The cultivation of land that was unsuitable for sugar plantation and changing British economic policy concerning the West Indies hastened sugar’s decline (see Tables 2-1 and 2-2). By 1951, the industry rebounded because of the Commonwealth Sugar Agreement that provided Jamaica with secure markets for its 270,000 tonnes of sugar. Output increased and in the year of 1956, 506,000 tonnes were produced, declining again due to low market prices and labour shortages. Although mechanical harvesters were used, they did not prove to be as effective as manual labours. Sugar production continued to decline so that by 1971, output was down to 379,000 tonnes (where 300,000 tonnes were exported and the remainder used locally). Approximately half of this output was produced on the estates, and the remainder by small cane farmers, which was grown on 35% of the arable land, mainly in low lying areas. In 1971, Jamaica produced several (approximately four) million gallons of rum and some molasses. Sugar has managed to survive the economic changes of the 1980s, and, in 1992, 204,00 tonnes were produced, contributing a surprising large share of value added to the economy (10% of exports).
### TABLE 2-1

ANNUAL AVERAGE SUGAR PRODUCTION
FOR THE YEARS 1820-1969

(000 tonnes)

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>BRITISH WEST INDIES</th>
<th>FRENCH WEST INDIES</th>
<th>CUBA</th>
<th>DOMINICAN REPUBLIC</th>
<th>TOTAL CARIBBEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1820-9</td>
<td>185</td>
<td>53</td>
<td>57</td>
<td>331</td>
<td></td>
</tr>
<tr>
<td>1830-9</td>
<td>190</td>
<td>54</td>
<td>131</td>
<td>427</td>
<td></td>
</tr>
<tr>
<td>1840-9</td>
<td>136</td>
<td>55</td>
<td>192</td>
<td>449</td>
<td></td>
</tr>
<tr>
<td>1850-9</td>
<td>162</td>
<td>46</td>
<td>345</td>
<td>620</td>
<td></td>
</tr>
<tr>
<td>1860-9</td>
<td>207</td>
<td>58</td>
<td>580</td>
<td>920</td>
<td></td>
</tr>
<tr>
<td>1870-9</td>
<td>246</td>
<td>81</td>
<td>645</td>
<td>1,074</td>
<td></td>
</tr>
<tr>
<td>1880-9</td>
<td>284</td>
<td>87</td>
<td>595</td>
<td>1,069</td>
<td></td>
</tr>
<tr>
<td>1890-9</td>
<td>260</td>
<td>72</td>
<td>638</td>
<td>1,076</td>
<td></td>
</tr>
<tr>
<td>1900-9</td>
<td>244</td>
<td>70</td>
<td>1,655</td>
<td>2,217</td>
<td></td>
</tr>
<tr>
<td>1910-9</td>
<td>246</td>
<td>65</td>
<td>2,647</td>
<td>3,469</td>
<td></td>
</tr>
<tr>
<td>1920-9</td>
<td>312</td>
<td>59</td>
<td>4,335</td>
<td>5,523</td>
<td></td>
</tr>
<tr>
<td>1930-9</td>
<td>485</td>
<td>89</td>
<td>2,842</td>
<td>4,731</td>
<td></td>
</tr>
<tr>
<td>1940-9</td>
<td>637</td>
<td>99</td>
<td>3,957</td>
<td>6,164</td>
<td></td>
</tr>
<tr>
<td>1950-9</td>
<td>1,028</td>
<td>172</td>
<td>5,367</td>
<td>8,375</td>
<td></td>
</tr>
<tr>
<td>1960-9</td>
<td>1,255</td>
<td>235</td>
<td>5,389</td>
<td>8,569</td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>5,877</strong></td>
<td><strong>1,295</strong></td>
<td><strong>29,375</strong></td>
<td><strong>3,055</strong></td>
<td><strong>45,014</strong></td>
</tr>
</tbody>
</table>

Source: Horowitz 1971
### Table 2-2

**ANNUAL AVERAGE SUGAR PRODUCTION**

*For the years 1820-1969*  
*(000 tonnes)*

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>CANE</th>
<th>BEET</th>
<th>TOTAL WORLD</th>
<th>TOTAL CARIBBEAN PER TOTAL WORLD OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>REST OF WORLD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CARIBBEAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>331</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>427</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>449</td>
<td>500</td>
<td>67</td>
<td>1,016</td>
<td>44%</td>
</tr>
<tr>
<td>620</td>
<td>624</td>
<td>259</td>
<td>1,503</td>
<td>41%</td>
</tr>
<tr>
<td>920</td>
<td>571</td>
<td>579</td>
<td>2,070</td>
<td>44%</td>
</tr>
<tr>
<td>1,074</td>
<td>731</td>
<td>1,242</td>
<td>3,047</td>
<td>35%</td>
</tr>
<tr>
<td>1,069</td>
<td>1,283</td>
<td>2,505</td>
<td>4,857</td>
<td>22%</td>
</tr>
<tr>
<td>1,076</td>
<td>1,990</td>
<td>4,292</td>
<td>7,358</td>
<td>15%</td>
</tr>
<tr>
<td>2,217</td>
<td>4,290</td>
<td>7,020</td>
<td>13,527</td>
<td>16%</td>
</tr>
<tr>
<td>3,469</td>
<td>6,738</td>
<td>6,693</td>
<td>16,900</td>
<td>21%</td>
</tr>
<tr>
<td>5,523</td>
<td>9,134</td>
<td>7,429</td>
<td>22,086</td>
<td>25%</td>
</tr>
<tr>
<td>4,731</td>
<td>12,119</td>
<td>10,084</td>
<td>26,934</td>
<td>18%</td>
</tr>
<tr>
<td>6,164</td>
<td>9,836</td>
<td>8,160</td>
<td>24,160</td>
<td>26%</td>
</tr>
<tr>
<td>8,375</td>
<td>14,768</td>
<td>15,325</td>
<td>38,468</td>
<td>22%</td>
</tr>
<tr>
<td>8,589</td>
<td>25,516</td>
<td>26,222</td>
<td>60,307</td>
<td>14%</td>
</tr>
<tr>
<td>45,014</td>
<td>88,100</td>
<td>89,877</td>
<td>222,233</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Horowitz 1971*
In Jamaica, during the 1970s, there was a rise in estate grown crops for export, but small farmers continued to thrive, selling fruits, vegetables and animal products. Livestock, poultry and fisheries supply only half of the local demand, thus food production is not sufficient to meet equal demand. This shortfall resulted in imports, such as salted cod and diary products, which exceed the value added of agricultural exports.

Bananas, in common with sugar, have a long history in the Caribbean and especially in Jamaica, Dominica, St. Lucia, St. Vincent and Grenada. They were first introduced in Jamaica in the sixteenth century by the Spaniards, but its place in the Jamaican economy was not an important one until in the middle of the nineteenth century. American schooners that called at the north-shore ports, began taking small quantities of bananas back to the United States. This began the exportation of bananas, from that small shipment, trade and regular shipment in the 1880s, handled mostly by American companies, but UK companies were also present. Jamaican small farmers were quite delighted to earn regular income from banana exports, and thus embraced the cultivation of bananas wholeheartedly. Later, because of the good fortunes of the banana trade, the estates also began growing the fruit. As the subsidised European sugar beet was proving to be a most formidable competitor to cane sugar, the alternative banana industry was welcomed, proving to be a more valuable export than sugar. This trend continued until World War II, the peak year, 1937 when some 27 million stems were exported, twice the volume that any country in the world had exported at that time. Exports (at that time) went mostly to the United Kingdom, the largest single purchaser of Caribbean bananas to present, including The European Union.

Following 1937, a series of misfortunes resulted in many banana producing estates becoming defunct, which were the causes of many economic hardships. First, diseases such as the leaf spot and the Panama damaged the soil considerably and precipitated long-term disuse of the land, resulting in the loss of hundreds of banana
plants. World War II (WWII) interrupted trade as ships were used for war and not for the shipping of bananas, resulting in 1943 being the worst year ever, with only 289,000 stems being exported. In 1951 a severe hurricane destroyed a million plants. The government recognised the need to aid the farmers if the banana industry was to flourish. A variety of bananas, immune to leaf spot disease called, Lacatans were introduced, and today there are other varieties. In the 1960s, about 173,000 tonnes were exported each year, but by the 1970s the banana industry declined considerably, cultivated on only 17% of the arable land.

The Bahamian small farmers that existed after emancipation, up to the early 1970s, (albeit in small numbers), grew food crops for their own needs and supplying hotels with a variety of tropical fruits and tropical and temperate vegetables. However the yields were low because of poor soil nutrients. Eleuthera was the most important island for commercial agriculture up to the 1970s, exporting oranges, grapefruit, pineapples, tomatoes, onions, livestock’s poultry and dairy products. There are also some small scale agricultural activities on Exuma, Long Island, Abaco and Andros.

In some instances, alternative employment to the sugar industry lost importance due to the arrival of technological advances. Therefore, in Antigua in 1899, the naval station at English Harbour called Nelson’s Dockyard, after Admiral Horatio Nelson, once so industrious when the British Navies used it as the chief base in the Caribbean, was closed. The primary reason for its closure was the arrival of the steamships, and this resulted in the island falling into further economic decline. It was the innovation regarding tourism development, which precipitated the restoration of the area during the late 1960s. The Dockyard has now become part of the National Heritage Trust, a historic site, a tourist attraction, and a forum for the annual spring regatta. Nonetheless, its closure during the 1800s added pressure to the increasing number of unemployed persons, which kept Antigua’s living standards extremely low up to the 1930’s. The direct result, of both agricultural inactivity and limited economic alternatives, was an increase in the number of people emigrating. Out-migration
haemorrhaged the economies of the region, with Antigua not proving to be the exception, to industrialised Britain during the 1950s and 1960s, and to the United States during the 1960s. As a result of these waves of emigration, the population contracted to less than it was 150 years ago, to about 34,000 in 1938, and even in 1991/2, only approximately 66,000 people were recorded.

St. Kitts' history is parallel to Antigua's and Barbados', in terms of earlier economic occupations, colonisation, and sugar plantations. Whereas the other islands reduced their dependence on sugar by the 1960s, St. Kitts became an anomaly in the Eastern Caribbean, by maintaining the plantation system until the end of the 1970s. The first British settlers in the West Indies arrived on St. Kitts in 1624, shared the island with the French briefly and initially carried out small farmers' activities. They grew tobacco, cotton, ginger and indigo for local consumption and for export. After emancipation, blacks in common with other areas were denied the opportunity of land ownership, and up to the 1970s, most of the land remained in the hands of estate owners (Hoy 1971). Most of the land was used for sugar cultivation, contributing 90% value added to GDP in 1970, the most significant foreign earner and unprecedented in the region. Cuba had vast estates producing sugar, but the percentage value to the Gross Social Product (GSP) was much less. Additionally, the estates were owned by the government, inadvertently by the people, while St. Kitts on the other hand had an economic activity that engulfed its economy, owned by private individuals.

During the 250 years of slavery (in common with Barbados and St. Kitts), sugar cane plantations dotted the Antiguan landscape. In 1898, the population of Antigua was 36,119 persons of which 15,603 were employed by the estates to cultivate 67,000 acres. The industry’s decline was not evident then and, in 1882, the amount of sugar and molasses exports represented 96% of the total. Sugar and molasses exports were £260,197, which decreased marginally (45%) to £118,634, by 1896. Antigua was a typical Caribbean island during the plantation days, neglected by the owners and
little capital was employed in the industry, nor were there any attempts to devise new industries. The report in the Commission of the Royal West India Company, of February 1898, noted that the industry was struggling with no central factories, and abysmally low wages of 10 shillings a day (about 12 pence). The freed peoples could not improve their welfare on such low wages, even in those days. Antigua specialised in sugar from the 1600s to the 1960s, ipso facto, very little food crops were grown. Food output was not sufficient to meet local demands, resulting in the importation of almost all its food requirements. The slump of West Indian sugar prices during WWII was severely felt on Antigua, precipitating the down-scaling and subsequent death of the industry. The attempts at cultivating tobacco, cotton and indigo, after sugar, were problematic, due in part to, poor climatic conditions, and the organisation of the factors of production.

Agriculture's decline in Barbados was most noticeable in 1970, as of the 106,000 acres of arable land, only 62,000 acres were cultivated. Most of the land (85%) was owned by 180 plantations, some of less than 50 acres, but most were over 1,000 acres. The remaining 15% was owned by 20,000 small holdings cultivating an average of only one half of an acre each. Sugar production during the period from 1920-24, was about 50,000 tonnes, increasing to 169,000 tonnes, about 30 years later, and a record 201,000 tonnes in 1967, from 11 factories. Although output was less than Jamaica, it was considerably more that, the other Lesser Antilles who had, by that time, largely abandoned sugar cultivation.

Nevertheless, sugar's high yields were not an economic success on Barbados due to, inter alia lower market prices, increasing production costs, and the continued dependence on imports, which resulted in severe balance of payment problems. The local people preferred other types of employment, most likely because of the negative association of field work and slavery (Latimer 1985). Barbadians refused estate work, despite the better wages, exacerbated by a declining labour force through migration. Labour shortages resulted in imports from the nearby Windwards, and the increased
mechanisation of the industry to reduce the dependency on manual labour. In the 1970s, sugar cane was the only agricultural export, although some yams were exported to the US. Small farmers supplied the local population with food crops, yams, sweet potatoes, maize, and garden vegetables, including cotton.

The problems and uncertainties of the 18th century, vis à vis export earnings from agriculture, and the lack of viable alternatives, were most evident on St. Lucia. These problems retarded early development on that island. The sugar industry did not immediately follow as an export crop, until a century after Barbados, St. Kitts and Antigua. Nevertheless, by 1830, sugar did become the main crop, worked by over 18,000 enslaved labour, producing up to 5,300 tonnes from eight factories. Post-emancipation labour shortages precipitated a downturn of 2,260 tonnes in 1843. The freed peoples preferred to cultivate their own plot of land, or to emigrate to the gold mines of French Guiana. The cultivation of land gave rise to a peasantry, as was common in the Windward Islands. East Indians were brought to St. Lucia as indentured servants (see Appendix 2-1) to work as field labourers, but they too sought other employment after their period of indenturement was over. Therefore, by the end of the 19th century, the industry was downscaled. Limes were introduced as an export crop, but diseases in the 1930s resulted in decline. Cocoa exports were increasing however, although most of the cultivable land produced subsistence crops.

St. Lucia’s main earlier economic occupation during the 1880’s to the 1920’s, departs considerably from the trend of the Caribbean, where alternative economic options to plantation agriculture alluded the islands. Commercial farming was mostly neglected in St. Lucia due to labour shortages, as the commercial sector and capital, Castries offered better paid employment opportunities. Castries had become a chief coaling station in the West Indies, housing and servicing ships with American and British coal on their voyages from Europe and North America, to South America and the Pacific. The coaling station was responsible for over 50% of St. Lucia’s income from 1880 to the 1920’s, until oil replaced coal, when the coaling station was finally closed.
loss of revenue would otherwise cause a depression, but was averted by labour demands to build the United States Army and Naval bases, which were subsequently closed several years after World War II. However by the 1950s, with the bases closed and Castries, the outlets of almost 100 years of absorbing labour ceased to create mass employment opportunities. St. Lucians resorted to agricultural activities, the only realistic alternative, *prima facie*, the banana trade.

Banana cultivation is suited to the topography and climatic conditions of St. Lucia, where production experienced rapid growth during the 1950s and the 1960s. A new disease-resistant variety yielded high outputs in 1954 of over 500,000 stems, increasing to over 3.5 million stems in 1961. Sugar was still being produced during this period but with sporadic success, ceasing altogether in the earlier part of the 1960s. As a result, large areas of land were released on which banana trees were planted, thus in 1965, over 6.5 million stems were exported, about 90% of total exports. Banana cultivation is successful in the Windwards because it thrives best where there are much rainfall, and fertile soil, plentiful on the Windward islands. Production rose continuously, except for 1970 when output declined by 50% of previous years production, because of prolonged drought, declining soil fertility, and the spread of nematodes, a disease, and increased cost of production. Nonetheless today, the Caribbean banana industry is threatened. Constant lobbying and negotiations by the Caribbean Banana Producers’ Association and other agricultural groups have become a ritual since the United Kingdom’s entry in 1974, into membership of the European Economic Community (EEC), now the European Union (EU). Farrell postulated that, the ‘annual beggars’ pilgrimage to Europe capitals to beg for better sugar prices under Lomé, is something that Caribbean governments have the power to stop’ (Farrel 1983:10). Nonetheless, these negotiations continue to occur to enable Caribbean bananas, and indeed other agriculture food products, to be included as items that fall under the auspices of the Lomé Convention. The Lomé Convention is discussed at length in chapter four of this treatise, however the main thrusts of the arrangement is the preferential treatment given to Caribbean products.
Caribbean products are exempt from the General Agreements of Tariffs and Trade (the GATT) negotiations, where most African, Caribbean, Pacific (ACP) products would be free from competition on the world market.

The banana question is a thorny issue for Caribbean governments. On the 7th April 1992, the European Commission agreed to remove the banana negotiations from the General Agreement on Tariffs and Trade (the GATT) and, in lieu of this, establish a quota system plus a 20% tariff on Latin American bananas (Davenport 1991). The inclusion of Caribbean agricultural products in subsequent Lomé discussions is mostly determined, by having the United Kingdom as a formidable Caribbean ally within the EU. Its strong bargaining position within the European Union and its continuation of that position will, in terms of trade, determines the Commonwealth Caribbean’s agricultural future. West European countries without traditional ties, specifically Germany, are less inclined to issue preferential treatment. The uncertainty that prevails in the British government, concerning its identity within the European Community might diminish its lobbying power. The Caribbean region has a relatively large body of intellects, there is no shortage of expert and articulate skills (Pooley 1992), therefore their usage must be at optimum levels during negotiations with the EU. The region’s position as a recipient of preferential treatment as an ACP member under the Lomé Convention ensures the survival of agricultural exports.

The special treatment that the Caribbean has been granted with the European Union provides a vital source of revenue. The removal of the special arrangements would result in a dramatic loss of revenue and the destruction of the banana export industry. Although Lomé IV allows for protection, the negotiations of bananas in the discussions subsequent to Lomé IV may be unfavourable. The region must view beyond the inevitable exclusion of the fruit, as the islands continue to face fierce competition from the more efficient Central American producers. The regional agencies, such as the work that is being done by the Caribbean Agricultural Research Development Institute (CARDI), must be encouraged to increase crop diversification.
Farrel postulated that the Caribbean governments, 'lack the courage and the perspicacity, however, to radically restructure the region's agriculture' (Farrell 1983:10). The alternative therefore, would be to abandon large scale agricultural export, in order to concentrate on regional food self-sufficiency. Restructuring of the region's agriculture requires diligent cooperation among the Caribbean government, conviction, dedication, and the adherence to regional policies. This can only be accomplished through, educating the farmers, under the auspices of a regional body, such as CARDI, within a CARICOM setting. The restructuring of the region's agriculture to address the inadequate regional food supplies, will begin to improve the region's food self-sufficiency.

The major competition (as mentioned above) is currently from the Central and South American countries, where lower costs exist because of higher yields per acre, which result in lower prices. The Central and South American countries have larger areas under cultivation and have the additional benefit of American investments. Economic theory states that market demand relative to supply will decide price, where one could argue that given the chance of pure competition, the Caribbean's bananas would be sold cheaper, if demand for bananas are price sensitive. A reduction in demand would ceteris paribus, lower profits, due to the inability of the region to increase supply, at least in the short run. Vincent and the Grenadines. However, if demand is inelastic, then open competition should not adversely affect demand. Nonetheless, it is difficult to determine the outcome based solely on demand elasticities, but the likelihood exists that given the trend of consumer price sensitivity, the overall demand for higher price bananas might fall. Any small decreases in the export of bananas would translate into significant revenue losses, prima facie in 1991 when drought resulted in the decline of exports. Total exports from the Windwards to the United Kingdom fell by 18.7% (222,087 tonnes), representing a reduction of 15.7% value added or US$121 million (Davenport 1991). The consequences of an imposition of restrictions would mean sure economic hardships for the Windward islands of Dominica, St. Lucia, and St. Vincent and the Grenadines.
During the first half of the twentieth century, three major economic activities were introduced, designed to render the island prosperous. Foremost, the centralisation of sugar production proved cost effective up to the 1960s, until drought, labour shortages, and an aging factory rendered the production of sugar insolvent forever. The introduction of sea island cotton to lessen the dependence on one crop, provided some economic diversity, but never became important. Finally, with government’s insistence, many abandoned plantations were separated, sold or rented as plots to the local population for small farming. The Leeward islands had less small farming (see Table 2-3), than the Windward islands, largely resulting from less arable land. But St. Vincent and the Grenadines had already established small farming by 1890, when most of its holdings (80%) were divided into small plots, vis à vis estates (see Table 2-4).

The timing was inopportune however, in common with the peasantry on Antigua, which existed at low levels, probably because of three reasons; (1) After emancipation, land was denied the blacks, and there was little fertile marginal land to the plantations; (2) When land was obtained, the long years of sugar cultivation rendered the soil poor in nutrients; (3) The climate, dry and susceptible to long drought without modern irrigation methods, agricultural pursuits were limited, indeed this is the primary case on Antigua. The alternative to sugar to maintain the islands’ prosperity was absent, therefore the low demand for labour resulted in low wages, little economic activity and overall hardships. The foregone are not in any, avoiding to lend credence to the agricultural activities that, developed in abundance on the rainy south side of the island and the middle terrain, where a peasantry was very much apparent; but overall, much of the land that was previously covered in sugar cane laid idle. Nonetheless, Windward islands such as Grenada, in 1992, grew a few export crops (Table 2-5), that were grown largely by small farmers.
### TABLE 2-3

**ECONOMIC COMPOSITION OF LAND IN A SELECTION OF CARIBBEAN ISLANDS IN 1960s**

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>ST. KITTS</th>
<th>NEVIS</th>
<th>DOMINICA</th>
<th>ST. LUCIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA (sq. miles)</td>
<td>68</td>
<td>36</td>
<td>304</td>
<td>233</td>
</tr>
<tr>
<td>PEAK ELEVATION (ft)</td>
<td>3700</td>
<td>3600</td>
<td>4747</td>
<td>3145</td>
</tr>
<tr>
<td>GEOLOGICAL STRUCTURE</td>
<td>Old Volcanic</td>
<td>Single central volcanic</td>
<td>Recent volcanic</td>
<td>Multi-peaked volcanic</td>
</tr>
<tr>
<td>SOILS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good types (%)</td>
<td>70</td>
<td>28</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>Poor types (%)</td>
<td>30</td>
<td>72</td>
<td>65</td>
<td>80</td>
</tr>
<tr>
<td>FARMING SYSTEMS</td>
<td>All Estate</td>
<td>Small peasantry only</td>
<td>Few Estates, many small farmers/squatters</td>
<td>Mixed small farming, very few estates</td>
</tr>
<tr>
<td>PRINCIPLE CROPS</td>
<td>Sugar</td>
<td>Cotton, vegetables, pastures, coconuts</td>
<td>Bananas, Coconuts, Cacao, Limes, Coffee</td>
<td>Bananas, Coconuts, Sugar Cacao, coffee, food crops, pastures</td>
</tr>
</tbody>
</table>

**SOURCE:** Horowitz 1971
### TABLE 2-4  ST. VINCENT AND THE GRENADINES
#### LAND USE IN 1890

<table>
<thead>
<tr>
<th>TYPE OF HOLDINGS</th>
<th>PERCENTAGE OF ARABLE LAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTATES</td>
<td>20%</td>
</tr>
<tr>
<td>SMALL HOLDINGS under 5 acres</td>
<td>80%</td>
</tr>
</tbody>
</table>

Source: Horowitz 1971

### TABLE 2-5  GRENADA AGRICULTURE OUTLOOK
#### 1992

<table>
<thead>
<tr>
<th>CROPS</th>
<th>ACREAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COCOA</td>
<td>14,000</td>
</tr>
<tr>
<td>BANANAS</td>
<td>8,000</td>
</tr>
<tr>
<td>NUTMEG</td>
<td>6,500</td>
</tr>
<tr>
<td>SUGAR</td>
<td>6,000</td>
</tr>
</tbody>
</table>

TOTAL REVENUE CONTRIBUTION 81%
TOTAL VALUE ADDED TO GDP 20%

Source: FT 1993

### TABLE 2-6  URBANISATION IN SELECTED CARIBBEAN ISLANDS
#### 1991

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>PERCENTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTIGUA AND BARBUDA</td>
<td>45.5%</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>39.0%</td>
</tr>
<tr>
<td>BERMUDA</td>
<td>5.8%</td>
</tr>
<tr>
<td>CUBA</td>
<td>19.5%</td>
</tr>
<tr>
<td>DOMINICAN REPUBLIC</td>
<td>32.0%</td>
</tr>
<tr>
<td>GRENADA</td>
<td>8.2%</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>37.0%</td>
</tr>
<tr>
<td>MARTINIQUE</td>
<td>27.8%</td>
</tr>
<tr>
<td>MONSTERRAT</td>
<td>30.0%</td>
</tr>
<tr>
<td>ST. KITTS &amp; NEVIS</td>
<td>50.0%</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>36.0%</td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENADINES</td>
<td>18.0%</td>
</tr>
<tr>
<td>TRINIDAD &amp; TOBAGO</td>
<td>32.0%</td>
</tr>
</tbody>
</table>
Aside, in the Caribbean, where a peasantry did exist in the Caribbean (specifically in the Lesser Antilles), it had, what Frucht (1963) described as, a 'peasant-like' means of production, along with 'proletarian-like' relations between workers and owners. The economies survived where the masses were peasant labourers, working in the fields as low skilled, low waged workers. The men had a "share-rent" relationship with upper-lower class stratification, as millhands, carters, overseers, mechanics and other skilled and semiskilled individuals.

The justification for this type of production process and why it was desirable, were the abilities of workers to accumulate cash wages and/or payment in kind. In general, men were involved in share wage, similar to agricultural labourers, for 'piece wage', of which female workers were predominantly involved, by sharecropping and farming-out. This latter production process was well organised and more successful with cotton (introduced in 1904), than it had been with sugar. Sharecropping, with respect to the cotton industry, involved weeding and picking cotton, using both children and elderly men. GDP, in 1992.

Attempts have made by some Caribbean islands, because of agricultural decline to pursue industrialisation. Jamaica and Trinidad and Tobago however, are the only islands that can be termed industrialised. If one measures Caribbean industrialisation by developing world standards, the region has lagged behind Asia and India. Its major drawback is obviously size, hence it is somewhat unfair comparison, but valid nonetheless. Industrialisation began in the 1920s when bauxite mining commenced in Jamaica, and oil production and refining in Trinidad and Tobago, and Curacao. Economic gains that might have been made due to these attempts at industrialisation however, were reversed with the onslaught of the general depression, in the 1930s.

1 Piece wage is a system whereby one gets paid only for the amount of cane one cuts, or cotton one picks.
2.3 THE IDEA OF NATIONHOOD

Nationalistic activities were pervasive on the English speaking islands and the Dominican Republic and Cuba had already repelled Spain, becoming independent in 1821 and 1890 respectively (Duncan 1992). The French and Dutch islands 'preferred' to be governed by the home countries. Two main reasons for the economic distress were the lack of successful alternatives to sugar, and discredited free trade principles. These left the islands extremely vulnerable to the price fluctuations of one or two primary goods, with very little or no room for manoeuvre. Cuba and other colonial islands decided to promote the islands as being more socially equitable to the North (USA) and attempted to seek unsuccessfully a more balanced structure which was less dominated by sugar (Ward, 1989). The British Caribbean decided to forego swift industrial development and instead, sought to modernise the sugar and peasant industries, but was only marginally successful. The 'heyday' of sugar had passed, during the early 1800s, and the peasant industries suffered from years of solely focusing on one or two products for exports, while largely ignoring food crops for local self-sufficiency. It is interesting to note, that alternatives to these few crops then, and to tourism trade today, seem to have eclipsed the policy and decision makers.

Present employment rates in agriculture in the Caribbean is relatively moderate by world standards, and the share of the total labour force has been falling steadily and has become negligible on some islands. On Jamaica in 1943, 44% of the labour force were engaged in agricultural activities, but by 1960 the proportion was down to 38%, and has continued to decline. In 1990, in Jamaica only 25% of the labour force was engaged in agronomic; and agriculture, forestry and fisheries contributed only a share of 7.8% to GDP. Approximately 270,000 hectares are cultivated with sugar cane, the most important crop, followed by bananas, citrus, spices, cocoa, coffee, horticulture and root vegetables. Montserrat and Antigua and Barbuda’s share of agriculture has
risen (4.3% and 4.1% in 1992) with the reintroduction of sea island cotton production, used as raw materials in local and foreign manufacturing.

As land became increasingly more available and unused due to agricultural demise in the rural areas, urbanisation increased, as people fled to the cities in search of work. Urbanisation continued that in 1991, most of the cities in the Caribbean were overpopulated (see Table 2-6). Estates, especially those on the peripheries were purchased, divided into small parcels and resold for the building of houses to foreign speculators in tourism, and for investment by the local population. Rural land was left idle and those sold to the locals were considered a commodity, and not as capital for the realisation of revenues. Land was neither used for agriculture and house building, nor for commerce, but was left uncultivated as pasture. Land was seen not to have investment potential, but was used to ensure social prestige, economic independence, and perhaps to be used for collateral, to secure bank loans.

The demise of sugar and the vulnerability of other agricultural activities, and the industrial activities that were only marginally successful, are partially resulting from the legacy of the plantation system. Profits made by the plantations were never reinvested in the islands, but were principally repatriated to the home countries, and to the extent that capital formation did take place, it was minimal. The local populations took approximately another 130 years from emancipation to earn decent wages. The period from emancipation to the present is approximately 155 years, only about 2.5 generations of adults in a lowly populated area. The 'Europeaness' that accompanied the islands after the long history of colonial rule, precipitated a taste for imported goods, more so than the tourism demonstration effect (Bélisle 1983). The process of capital accumulation was altered, and only collective will and thrift could achieve the limited investment in industry. However, even collective will cannot compensate for the drawback of size, of the individual islands. The major encumbrance resulting from its low level of capital accumulation is the inability to invest in major development projects.
TABLE 2-7

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTIGUA &amp; BARBUDA</td>
<td>78.06</td>
<td>88.47</td>
<td>102.08</td>
<td>115.14</td>
<td>131.09</td>
<td>152.11</td>
<td>177.56</td>
<td>202.15</td>
<td>239.92</td>
<td>272.46</td>
<td>293.20</td>
<td>304.52</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>535.22</td>
<td>618.09</td>
<td>659.22</td>
<td>687.97</td>
<td>755.09</td>
<td>832.58</td>
<td>886.70</td>
<td>970.51</td>
<td>1033.56</td>
<td>1155.95</td>
<td>1177.36</td>
<td>1160.09</td>
</tr>
<tr>
<td>BRITISH VIRGIN ISLAND</td>
<td>43.65</td>
<td>48.69</td>
<td>56.26</td>
<td>62.89</td>
<td>70.30</td>
<td>73.58</td>
<td>79.65</td>
<td>88.80</td>
<td>104.62</td>
<td>122.66</td>
<td>136.15</td>
<td>151.13</td>
</tr>
<tr>
<td>DOMINICA</td>
<td>29.58</td>
<td>31.68</td>
<td>34.29</td>
<td>39.73</td>
<td>46.26</td>
<td>51.83</td>
<td>58.11</td>
<td>65.48</td>
<td>73.77</td>
<td>83.45</td>
<td>91.77</td>
<td>98.32</td>
</tr>
<tr>
<td>GRENADA</td>
<td>42.15</td>
<td>43.44</td>
<td>49.44</td>
<td>53.22</td>
<td>59.19</td>
<td>66.89</td>
<td>75.81</td>
<td>81.56</td>
<td>89.11</td>
<td>102.08</td>
<td>111.07</td>
<td>110.21</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>118.58</td>
<td>142.10</td>
<td>163.07</td>
<td>189.32</td>
<td>252.96</td>
<td>305.74</td>
<td>369.36</td>
<td>437.01</td>
<td>497.60</td>
<td>583.02</td>
<td>759.19</td>
<td>1023.83</td>
</tr>
<tr>
<td>MONSTERRAT</td>
<td>17.79</td>
<td>19.59</td>
<td>21.46</td>
<td>24.21</td>
<td>26.11</td>
<td>26.89</td>
<td>29.36</td>
<td>33.94</td>
<td>36.99</td>
<td>40.32</td>
<td>43.95</td>
<td>47.91</td>
</tr>
<tr>
<td>ST. KITTS &amp; NEVIS</td>
<td>23.95</td>
<td>30.57</td>
<td>34.05</td>
<td>34.99</td>
<td>41.93</td>
<td>46.63</td>
<td>57.22</td>
<td>62.76</td>
<td>71.74</td>
<td>84.79</td>
<td>94.35</td>
<td>104.98</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>69.54</td>
<td>79.97</td>
<td>91.96</td>
<td>105.75</td>
<td>121.61</td>
<td>139.85</td>
<td>160.67</td>
<td>183.52</td>
<td>196.52</td>
<td>225.30</td>
<td>245.81</td>
<td>267.26</td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENADA</td>
<td>33.25</td>
<td>40.34</td>
<td>46.61</td>
<td>52.68</td>
<td>57.27</td>
<td>61.30</td>
<td>68.21</td>
<td>78.40</td>
<td>87.59</td>
<td>99.24</td>
<td>112.59</td>
<td>123.87</td>
</tr>
<tr>
<td>TRINIDAD &amp; TOBAGO</td>
<td>1537.62</td>
<td>1832.71</td>
<td>2578.75</td>
<td>2488.14</td>
<td>2396.56</td>
<td>2304.10</td>
<td>2405.62</td>
<td>2334.05</td>
<td>2326.24</td>
<td>2250.38</td>
<td>2392.14</td>
<td>2668.45</td>
</tr>
</tbody>
</table>

US$1=EC$2.7; US$1=BDS$2; US$1=J$23.3; US$1=TT$4.25

Source: Charles 1993
Industrial developments in the region, such as manufacturing and tourism, are largely foreign owned and enclave type of export industries (Hudson, 1989), which are heavily reliant on Multinational Corporations (MNCs). Foreign investment in the Caribbean was apparent in the Caribbean from its inception. Nonetheless, the rise in MNCs and their influence and investment in developing countries predates the 19th Century (Hope 1986). The local banking systems are structured such that, loans to aid in industrial development are difficult to obtain. It is only during the 1980s that, regional and local development banks, such as the Caribbean Development Bank, have been set up to facilitate development projects. The funds needed to develop major industry in the region are difficult to mobilise. This a largely resulting from, as Lewis stated in 1954, the small size of the capitalist population, *ipsa facto* the small general population, a lack of knowledge and poor cooperation. It is, therefore, necessary to accommodate foreign investors despite the poor record of commitment, where companies have pulled out of the region (Potter 1992), without ‘pomp and ceremony’ and a thought to the ramifications that their departures would have on the local communities. In recent years, there have been some increases in business ventures engineered by local professionals, but overwhelmingly less local businesses exists. During the 1960s however, private sector activity was on a small scale, representing only a small proportion of the economy with limited opportunities. Prior to this period, in the forties and fifties, there was the emergence in the region, as a retail banking sector. Retail banks originated mostly from Canada and the former colonial powers, operating presently alongside local banks.

The emerging banking sector offered limited employment opportunity for the masses, since most people lacked the secondary educational requirements needed to procure employment. In addition, racist practices meant that employment in this sector was only a realism for the middle and upper classes, who were in most of cases white or of mixed race. Indeed, very were rarely blacks of darker skin colour, and even rarer peoples of East Indian or Chinese descent employed in this sector (Thomas-Hope 1993). This practice ended by the 1960s when most islands, especially the English
speaking ones, became self-ruled but full evidence of an egalitarian division of labour took years to be realised. It is mostly likely the persistent problems of race, colour, and the division of labour resulting from imperialism, that have given rise to the criticisms of tourism as a 'plantation' system (Weaver 1988), and its neo-colonial symbiotic relationship (Perez 1973, Potter 1993).

Following the trade unionists movement and the islands' participation in the political and economic decisions of the Caribbean's future, policies were enacted that would benefit the citizens. As the islands gained more autonomy in the 1960s, steps were taken by the new local governments, who were primarily black civil rights leaders and true pioneers of their day, to care for the masses. For the first time education became a right for all and compulsory school attendance was actively policed. To complement this process more effectively, new secondary schools were built, and the emphasis was placed on obtaining O-levels and A-levels. The obtaining of O'levels was key, serving as a catalyst to a better educated public, where the labour force would be in a position to meet the challenges of employment in the banking and other services sector. Education was championed as the way out of poverty, ensuring that children obtained a place in secondary schools that meant the future of the islands economies was positioned to meet the challenges, with an increasing educated pool of young people. The result of these aspirations is a mean range of about 95% - 99% literacy today in the English speaking Caribbean, where successful secondary school leavers are among the highest educated at that level in the western world (FT 1993).

2.4 INEQUITABLE DEVELOPMENT AND DEPENDENCY

The long process of creating the necessary social and economic framework was largely complete and nationhood is finally realised. The challenge that remains is the pooling of the limited natural endowments, human capital, and the mobilisation of physical capital to better effect economic development. Tourism, as the largest single economic activity, and with its interdisciplinary nature needs an educated public, with
a range of disciplines, specifically in the business area (Echtner 1995). The gap in hotel staff demands at the professional level, and the supply has been slow to be filled from local sources. However, more youths are following the nontraditional route in tertiary education, a much needed occurrence if the local population is to become more involved in tourism, and the economic development processes of the islands. Additionally, the regional universities need to provide the course work needed in tourism, given that the region is so dependent on this industry.

Traditionally, the local middle classes preferred teaching, medicine, law, and other higher education credentials as their profession vis à vis entrepreneurial pursuits. A relatively more educated region however, means one that is less willing to participate in agricultural activities (except from a scientific point of view), and one that collectively, should be able to devise innovative ways to increase economic activity. The emphasis is not meant to discredit the success of the education process, as it is germane to the region’s future, but it could be another reason for the decline in agriculture, and the increase of services sector activities. This process however, follows from general economic development theory which states that, as a nation becomes developed the share of agriculture to GDP declines. Of course, some people, although literate and educated will forever have an affinity to the land, pursuing farming as a livelihood. Still, others might not be of an educated level, hence they pursue employment in the primary and secondary sectors.

Supporters of the ‘diffusion’ theory advocate closer ties and links to the developed world, embraced by the vast majority, and it is these links that have partially given rise to the Lomé Convention and the Caribbean Basin Initiative (CBI). Opposers to this type of dependency criticise it in terms of the ‘dependency’ theory, where the question of sustainability of the economies’ development is of major concern. The Caribbean economies have been severely criticised, not only in terms of its unequal position within Lomé Convention, ipso facto, implying that these arrangements foster neo-imperialism and are exploitive in nature (Ward 1989). Also that, tourism
development, as agriculture exports (bananas) is castigated as neo-colonial (Perez 1973, Richards 1983, Weaver 1988, Wilkinson 1988), where the economies are overly dependent on exogenous factors and thus, are highly vulnerable (Briguglio 1993); such that an economic downturn in the EU or the USA, might result in a momentous decline in tourists arrivals in the Caribbean. Notwithstanding the criticisms, the economies of the Caribbean are inherently dependent on external markets, because the local 'population whose numbers and incomes cannot provide a good market for local products' (Hudson 1989:186). Dependency is a factor of islands however, particularly islands that are microstates (Clarke 1987, Diggines 1985, Dommen 1980, Handel 1981, Pearce 1987, Robinson 1963, Vital 1967, 1971). The Caribbean islands are individual and fragmented, and only through unification can they increase their scope for industrial planning and development.

The realism of the world trade situation must be viewed pragmatically, and where this is scrutinised carefully, the results will show that, without some form of arrangement as the Lomé Convention, the developing world would be continually marginalised. Closer ties to the developed world should be fostered and traditional links maintained, as it is the main of source of survival. The cold reality is such that, in a world where competition on the open world market could drive prices for commodities down such that, the harvesting of some agricultural produce would no longer be viable. Economies that rely on one economic activity would be in dire straits, therefore diversification into tourism has become common place in all of the Caribbean nations. Tourism's future depends on the maintenance of closer links with the developed world, as this industry is even more dependant on activity flows from the North. On those islands where the local people have felt marginalised by the industry, non-patronising attempts must be made by local governments to include them in the process, to ensure the continued congeniality between guests and host.

There are various schemes referring to the stages of growth, first postulated by 19th century German writers Friedrich List, Bruno Hildebrand, Gustav Schmoller, Karl
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Bücher and Werner Sombart. These early economists described an economy's progression from peasantry and pastoral life, to the agriculture, manufacturing and commercial stages (List), barter, money and credit, (Hildebrand), and the socioeconomic systems (Bücher and Sombart) that intertwined the stages (Hagen 1980). Walt W. Rostow in 1956, applied these earlier writings to modern economic thought, where capitalist economies progressed through economic development stages, once the traditional life has been disturbed. Rostow (1956) likened his discussions to the later stages of society, where the preconditions for growth are in place, and takeoff, drive to maturity, and high mass consumption follow. The developed world has fallen neatly into Rostow stages theory, where their economies have advanced from the primary stages, where agriculture and extraction were the mainstay of the economy, onward to the secondary stages of industrialisation, mostly manufacturing which preempted agriculture, followed by the tertiary stages of services (Riddle, 1986). The question is whether the Caribbean, or any other developing nation or groups of nations, can follow this orderly pattern of development. The evidence suggests that, it is unlikely.

Importantly, the question remains, whether economic development makes for increased happiness, and it is suggest, 'that economic development makes people happier is self-evident' (Hagen 1980:10). Economic development follows a rise in income, as stated by the celebrated Caribbean economist W. Arthur Lewis (1955), and could increase the ability of humans to be happy through the opening up of alternatives. He continues to caution however, that only if the value of human welfare is determined, and Ford (1985) adds that, the issue of value or feeling as part of a community is a desirable development. Hence, economic development in the absence of sense of 'worth and community' do seem to follow criminality and social disorder (de Albuquerque 1984), as is evident in the world's richest countries. The Caribbean sui generis has a comparatively good sense of family and community, hence social disorder is at its minimum.
Chapter 2: Caribbean Economic History

The Caribbean economies were up to the late 1950s and 1960s at the primary stage of development, positioned to enter the next stage of industrialisation and manufacturing. The economies have however, leapt rapidly through the stages, largely because the size, location, investment, and human resources are such that manufacturing is not a viable option in the Caribbean. The main reason for the 'jumping' of stages (Shelp 1985), can best be explained by the neoclassical theorists, where the world’s economy is interdependent, and trade is the engine of growth. The ability of a nation to grow economically is via trade, and trade is determined by, as David Ricardo’s theory in the 19th Century setting stated, the concept of comparative advantage. Included Heckscher-Ohlin theory of international trade and the importation of technology is applicable to the development of tourism in the Caribbean. Hence, tourism development and its success has not been an accident in the Caribbean, as the economies have the comparative advantage of sun, sea, and a favourable climate. The stable political systems and the total capitalist economic environments lend the region safe for foreign investment, and international trade, where labour is plentiful and relatively cheap, and technology is easily imported. The foregone concludes that Rostow’s stages theory is an anathema to the Caribbean’s development process.

Services in general, and tourism in particular increased tremendously by the 1970s, when most islands had more than 50% of GDP attributable to services. In 1992, Antigua and Barbuda’s share of services to GDP had been 81.6%, Barbados’ share was 80.21%, Jamaica 53.78%, Trinidad and Tobago 55.58%, and the British Virgin Islands (BVI) were 86.71%. Economies with a wider economic base, such as Jamaica and Trinidad and Tobago, have lower shares of services contribution to their Gross Domestic Products (GDPs). This is due to larger percentage shares of industry and agriculture.

During the 1980s, in an attempt to diversify away from tourism, there has been an increase in offshore banking and insurance investments from Northern companies,
primarily using the islands for tax shelter purposes. The banking community, especially the retail and commercial banks in the Caribbean, is a significant employer of young educated school leavers, and is considered a 'good job', where one can be gainfully employed, to position oneself for upward mobility. The financial sector, both the commercial and offshore financial services, is pivotal to the services industry, second in importance to the tourism sector. The financial sector is evident on all of the islands, but is especially important on Antigua and Barbuda, the Bahamas, Barbados, Bermuda, The British Virgin Islands, The Cayman Islands, Curacao, St. Barts, and The Turks and Caicos Islands. The only drawback to the financial sector is that, it needs a highly educated and skilled workforce, which is a deficiency on some islands. Hence on islands such as the Dominican Republic, and the Windward Islands, where unemployment levels are at the highest, it would do little to absorb the excess labour. Additionally, in the absence of 'strict rules of origin' of cash (and in no way is this implied not to exist), the opportunity that 'drug barons' may view the offshore banks as an avenue for 'money laundering', would be a potential security threat to both the sector, and the region.

In place of agricultural export markets, nations could procure revenues through trade in mining, specifically in commodities that have a high demand, for industrial usage, such as oil, diamonds, or gold. There is nonetheless, a paucity of mineral deposits in the region, limited to a handful of islands: salt on the Dutch islands, oil deposits, natural gas and asphalt on Trinidad, natural gas on Barbados, nickel, copper, manganese, chromium, and iron on Cuba, bauxite and gypsum on Jamaica and nickel, bauxite, gypsum, mercury, titanium, and copper, zinc, gold and silver on the Dominican Republic. Most of the initial deposits of gold on the islands, namely Cuba, were worked out by the Spaniards, but small production continues on The Dominican Republic and Aruba. The Caribbean does not have considerable options, in relation to the exportation of minerals, to aid its economic growth, as could Central and South America, hence its scope for industrial development on a large scale is
limited. In addition, due to its fragile ecosystems, industrial waste would have adverse effects on the biodiversity of land and sea life.

2.5 THE EMERGENCE OF THE SERVICES INDUSTRIES: MAINLY TOURISM

Many discussions have arisen concerning the service based economies of the Caribbean, specifically those that rely heavily on tourism, where the question of sustainability and dependence on foreign investments are the main concerns. The Western world economies have become increasingly service based, *ipsa facto* the US' services sector account for about 70% of GDP, 66% for the UK's, and 54% for the German Economy (Nusbaumer 1987). Tourism has been likened to the sugar industry, where it is considered to be similar to the plantation system (Wilkinson 1987, Richards 1983), as both are monocrops, nurtured for export, dependent on externalities, on both capital and human investments. Whereas these arguments alone are valid, in view of the Caribbean natural endowment and size, only tourism could be pursued as a development option (Momsen 1986).

The close proximity to the USA, the traditional ties with a number of EU countries, and stable political systems have resulted in a thriving tourism industry. Tourism in the Caribbean contributes between 20% to 70%, of all current account receipts (EIU 1993), and in 1992, its overall growth rate increased by 17%, when compared with the world's tourism growth rate. To date, there is no region of the world where tourism is as singularly important an industry as in the Caribbean, except the South Pacific islands, as tourism revenues contribute significantly to their GDPs.

Tourism took root very early in the formation of the Caribbean economies, as the 'welcoming' of visitors was an intrinsic part of plantation life. Visitations of Europeans were quite common, and much fuss was made when a visitor, especially someone of noble extraction arrived. After the decline in sugar, plantation homes
were renovated into hotels, estates were sold, some to prospectors, and hotels were built. During the 1930s and 1940s, hotels were small, seaside houses, accommodating a few hundred guests per year. By the late 1950s and 1960s, Antigua and Barbuda, Aruba, Barbados, Bermuda, Cuba (prior to the revolution), and Jamaica emerged as major tourism destination within the region.

During the 1950s, tourism in the Caribbean started its rapid ascend, as the western developed economies experienced upturns, and travel became more popular. As the affluence in the metropolis increased, so did the advent of travel en masse. However, travel and tourism had not become a significant economic factor, or had been recognised as an avenue for full exploitation, to sustain the Caribbean economies, until the late 1970s. Prior to this period, governments were still struggling with agricultural and manufacturing problems, the demise of the sugar industry, vis à vis cultivating and logistic problems, and disappearing markets. The economic growth experienced by the introduction of other industries, particularly manufacturing, as an alternative to agricultural produce, was disorganised at best, and feeble and inconsistent at worst, where planning and policy were absent. Jamaica and Trinidad and Tobago are the two exceptions, as natural endowments of bauxite and oil served as the catalyst to activities in their industrial sectors, affording them higher gross domestic products (GDPs).

Jamaica however, despite industry, benefitted from its tourism trade, as it was significant contributor to GDP and to foreign exchange earnings. Barbados' economy boomed during the 1950s and 1960s, through a thriving tourist trade, an organised commercial city centre, and fiscal borrowing to finance public spending (Anyadike-Danes 1994). Antigua and Barbados' tourism industry were the most developed in the Leeward and Windward islands during the 1960's, but lagged behind the more advanced destinations. Total tourism arrival in the region in 1970 (excluding Puerto Rico) was approximately 4.6 million. Arrivals were at its highest in the Bahamas (891,510), Jamaica (309,000), Bermuda (302,780), Barbados (156,380), and Antigua.
and Barbuda (63,370) in 1970, evidenced by international airports, coral sandy beaches, and deep water harbours that could accommodate huge cruise ships. Aruba, the British Virgin Islands, the Caymans and the Dominican Republic had very little tourism, but experienced tremendous growth rates during the 1970s and 1980s. The results were higher levels of prosperity, compared with the agriculturally based economies of the Windward islands.

The economies of the Caribbean, based today overwhelmingly on the tourism industry, are dependent on foreign investments and export markets, a dependency that could be fragile, a form of neocolonialism (Perez 1973, Potter 1993, Richards, 1983). Another critique employs the hypothesis of neo-imperialism, using the argument that the top strata of management in the hotel industry. The majority of tourists are from a homogeneous group, a ‘white’ colour code, whereas the employees at the lower level jobs form a sea of ‘black’, where servitude prevails (Dan and Potter 1994, Perez 1973), and the racial roles from the sugar days have been allowed to continue (Weaver, 1988). The demand for the tourism product however, originates from the more developed areas of the world, North America and Western Europe. As the Northern hemisphere is heavily populated by, ‘whites’, who have had a tradition of holiday making in the Caribbean, the majority of those tourists would be of that racial group. However, Japanese, and Chinese groups, and ‘black’ Northerners are becoming a noticeable visitor to the Caribbean. Another counter argument could be that some islands have managed to minimise this division of labour, by limiting the number of expatriates to 25% of the total workforce (most noticeable, Bermuda). The challenge should be taken up by other major tourism islands however, to reduce these differences, and education opportunities in areas relating to hotel management should be encouraged.

The question of lower level jobs being performed by blacks, is one factor relating to the racial make up of the region (blacks being the majority), and may not be an intentional labour division. The grooming of employees to higher paying positions
should be part of the career process, especially in the hotel sector, by investing in human capital, including the use of available educated labour. Just as sugar was a successful economic activity, tourism and the services sector have proven to be the same, but the benefits of the modern sector have filtered through, without being noticed. The positive results are rarely mentioned, *prima facie* the evidence of development that has ensued as a result of tourism activity are worthy of discussion. The argument against dependency on a single major economic sector is valid nonetheless, as the risk of economic downturn precipitated by a demand decline would adversely affect the tourism based economies.

Tourism's contribution to overall economic development, and its contribution to national income could be rated as moderate to high, during the 1950s to 1980s. The countries with the best overall success, and fairly even distributions of income have services sector based economies (mainly tourism) epitomised by Bermuda, St. Barts and The Cayman islands. These islands' citizens enjoy some of the highest standard of living in the world. Tourism and offshore finances are Bermuda's economic base which contributes huge amounts, over one billion value added to total GDP of US$1.67 billion in 1991. Hence, although a densely populated island of 60,600 people on 55 sq. km, in 1991, its per capita income was one of the highest in the world, (surpassed only by oil producing Arab countries), at a nominal US$27,557.76 matched only by the Cayman islands in the Caribbean region.

Conversely, agricultural based economies of the Windwards have not experienced such dramatic increases in their per capita incomes, or standards of living. Dominica's economy relies on an agriculture, with a per capita income in 1977, of about US$462.75. In 1986 and 1991, per capita incomes rose significantly, but remains at low levels to about US$1,394.87 and US$2,229.58 respectively (at factor cost and current prices), representing only a nominal increase of US$1,766.83, in 15 years. Notwithstanding the lower per capita incomes of the Windwards however, the Caribbean's per capita incomes, *sui generis*, are significantly higher than other
developing countries (Dommen 1985). Hence collectively and in some cases individually, the economies can be classified on a world scale, as middle income countries.

2.6 THE PRESENT AND THE FUTURE ECONOMIES

The challenges that remain include: (a) how to address the threat of diminishing markets for agricultural goods, and the need for diverse food crops; (b) ways to increase in the economic benefits of tourism, and diversification away from tourism after deciding the islands’ optimum carrying capacity, should be integral to sound tourism and economic management; and (c) methods to the minimise the high dependency nature of the economies, through amalgamation of the economies through regional integration. The means by which regional and local ownership of the factors of production can be attained, through access to development funds, should aid in maximising the benefit of industry to the economies. Agriculture’s demise should be met with creative manoeuvring and strategic planning, where the move towards local self-sufficiency in food products is paramount. There are at least two reasons why agricultural food products must be encouraged, as; (1) Bananas seem likely to be excluded from Lomé, and with it will be a reduction in demand; and (2) local food production, as it has the ability to not only feed the people, but could become an intersectoral link with the tourism industry, that should help to reduce leakages.

Tourism, no matter how vital to the solving of labour and foreign exchange problems, must be seen as one of many industries in a diversified economy. Moreover, the challenge of sustainability is extremely important, and probably most difficult to achieve, in reality. The natural endowments that give the Caribbean the comparative advantage in ‘resort’ tourism, must be protected from environmental degradation. It is this crucial issue that, brings the idea of optimum carrying capacity to the fore, as unarrested tourism arrivals will put undue pressure on the fragile ecosystems. Legislative policies are in place, but the enforcement of these laws must be upheld.
Tourism has been viewed as a 'quick fix' solution, to solve the economic woes of some islands of the Caribbean, but it is critical to realise that tourism is not a means in itself. Total reliance on this industry to solve economic problems is short-sighted, therefore forward thinking strategists must engineer other industries to reduce the dependency on one industry. Tourism has ramifications that, could have adverse effects on the economies if too much reliance is placed on this activity. Long-haul tourism income elasticity is greater than one, and it exceeds the income elasticity of short-haul travel (Grouch 1994). Thus, any change in the economic climates of the generating countries that would affect disposable incomes would, ceteris paribus, affect arrival figures. As tourism activity increases, so would imports to the receiving country, due to the additional need for goods and services, and the need to provide resources that meet with an international standards, which has resulted without exception, resulted in the individual Caribbean islands experiencing balance of payments deficits. Food consumption needs of the tourists are met only marginally by local food productions, thus two ways of alleviating the problem could be; (1) regional cooperation and effective organisations of the region's food supply, and; (2) rechannelling local and tourists food consumption patterns, through public relations campaigns in participation with local governments.

Tourism is an important economic tool for development in the Caribbean, and has successfully helped to narrow the gap between the 'haves' and the 'have-nots', through income redistribution from the north to the south. It is an indivisible export, which with the combination of other services industry activities, has reduced trade deficits of individual islands' current accounts. The industry single handedly changed individual Caribbean economies from stagnation to viability, even with the existence of low backward linkages, and high leakages. Large quantities of imports, result in leakages, which are estimated at 70%, which lower the tourism income multiplier effect. If the multiplier effect is low, then the economic impact would be lessened, which therefore results in slower economic growth (Seward and Spinard 1982).
Chapter 2: Caribbean Economic History

Some causative factors are the leakages from the national economy, of company profits and expatriate remunerations. Another significant causative factor is high food importation, mainly because traditional agricultural practices are such that, only one or two crops have been cultivated for export at the expense of local food production. Dominica had a relatively high multiplier estimate during the 1970s, of 1.195 (Archer 1979), because of its subsistent agricultural base, similar to today. Conversely, as The Caymans import a high proportion of the food requirements, the multiplier effect was substantially reduced to 0.65 (Archer 1979). An increased multiplier effect translates into a higher industry contribution to overall economic growth, as the first and second round of spending impact on the economies more forcefully, which results in rising GDPs.

Subsequently, the challenges of the services industry, especially international tourism must be discussed constructively, in local and regional integrated fora. The region’s future in a volatile world economy has to be manoeuvrable and sustainable, *sui juris*, less reliant on one or two activities, and with a regional attempt at economic diversity. Nevertheless, tourism is multi-faceted, creative, and has the ability to spur positive spinoff entrepreneurial economic activities, both locally and regionally. Subsistent agriculture and fisheries must be integral parts of the economies, thus ensuring regional economic sustainability.

2.7 CONCLUSION

The climate, geography, and proximity almost from the beginning predetermined the type of economic activities that could be organised on the islands of the Caribbean. Large scale economic activities were successful only with plantations and the use of the diabolical division of labour, slavery, which dominated the economic and social systems. The economic framework was such that the islands fell under one political, and by extension one economic system. This eco-political system was governed from the home countries, where successful lobbying for higher commodity prices were
obtained. The types of economies of scale possible under plantation or monopolistic type operations, with a vast market place, rendered the industry viable. Successful operations need to be cost effective, and small islands' economies due to size limitations are unable to facilitate efficient export crops, unless undertaken on a plantation scale. Cartels are also presently utilised in regions limited by size and influence to demand a fairer market prices, as is evidenced by inter alia, the region's oil, and nutmeg and mace industries.

Ward postulated that, 'the apparent weakness of innovative or competitive spirit among Caribbean business-people may have been due mainly to the constraints of limited island markets', he continued to say that perhaps this constraint is due to market size (Ward 1989). The reliance has continued to be on one or two major industries, without exception, coupled with weak entrepreneurship, which categorically have facilitated fragile, volatile and inconsistent economic growth. The earlier developments in the region up to quite recently, in view of the political, economic and especially the social process, have led to the evolvement of the peoples of Caribbean. The process however, have precipitated dependent habits on externalities (Harrigan 1974), where the economies remain outward looking, economically. Principally, size is the major drawback (to full economic development), as the islands are small in terms of both land mass and population. Equally as important as the limitation of size is the narrow range of natural resources which hinders present industrial development (UNCTAD Secretariat 1985).

The Caribbean islands are typical of microstates within the global context, insular and small. Indeed, the islands of the Caribbean are among the smallest independent nations in the world, and their open economies benefit from foreign investment. Regional economic development to date has meant, an almost total reliance on tourism development. The Caribbean's economic history development began with a monocrop - sugar, and continues to be in a monocrop - tourism (Richards 1983, Wilkinson, 1987, 1989, Potter 1993). Specialisation however, typifies small states trade
(Dommen and Hein 1985, Kuznets 1963), based on the principle of comparative advantage (Södersten 1972) on one hand, and the reality of world trade on the other.

The following chapter explains the economies as they are in the present, whereby the importance of the economic sectors are pointed out, and discussed. These discussions follow on directly from the economic situation of the Caribbean’s from a historic, in an attempt at pointing the importance of the tertiary sector to the region’s economic development.
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THE PRESENT DEVELOPMENT

3.1 THE ECONOMIES

In the previous chapter, the economies were discussed based on historical events, but here the present economic situation is examined, in order to point out the position of the economies to date. The economic development situation of the Caribbean should be viewed both in a historical and present day context, thus forming the background of the treatise. This chapter provides a brief economic analysis of the economies of the Caribbean to date, and draws attention to their individual limited potential for economic development.

There are a variety of theories that have been put forward to explain the process of economic development. The new view that came about in the 1970s, and regained momentum in 1990s is most applicable to the Caribbean, as it embodies sustainability issues. Economic development goals in the 1990s should embody development that is multidimensional, which incorporates more than material and financial progress (Todaro 1994), based on numbers (Goldsmith 1994). Economic progress should not be the sole judge of development, instead it should take account of societal and environmental welfare. The most pressing issue of any economy is its ability to provide enough lucrative employment for its workforce, and in this regard the Caribbean is not exceptional. Unemployment is as high as 30% of the workforce in some parts of the region, and mass underemployment exists in others. Thus, it is the rise in economic activity that should increase employment opportunities.

Moreover, scarce natural endowments limit economic organisation, and the continued reliance on a narrow range of agricultural export crops limits economic growth. The growth sectors are overwhelmingly in the service industries, tourism and offshore finances, which contributes at least 50% of the islands’ value added (Charles 1994).
Tourism largely employs locally unskilled and semiskilled labour (the majority of the labour force), hence the industry should be as efficient as possible. Offshore finances are very lucrative but require a highly skilled workforce, therefore it does not have vast employment potential. Information technology is a new area waiting to be exploited, and its scope for employment could be negligible.

Some aspects of this industry are already in place in St. Kitts and St. Lucia, with data entry operations which have provided employment, especially for women. In addition, a new digital earth station will provide relief of unemployment in St. Lucia, and could assist employment for other Caribbean nationals. Structural problems based on rigidities in the socio-economic system, and fiscal mismanagement are two factors that have affected Caribbean economies. There is a need for a new type of development, where the concerted effort of those in the North and the South who share views on sustainable development, can implement workable solutions, to replace the ‘old’ exploitative views (Brandt 1970, Ford 1992, Goldsmith 1994).

Cuba, in common with Dominica, the French Antilles, the Dominican Republic, Grenada, St. Lucia, St. Vincent and the Grenadines is overwhelmingly agriculturally based. In Cuba, unlike the other islands, over 70% of the agricultural output comes from state owned farms and the remaining output from small farmers who belong to cooperatives. In the Caribbean, Cuba is the most dependant on agriculture, and a total cultivated area of 3.4 million hectares is dedicated to growing sugar, tobacco, rice, coffee and citrus fruits. The nickel extracts are important, but are second to sugar, (sugar being the largest generator of income). Cuba is the world’s second largest producer of sugar and the largest exporter of cane sugar in the region, representing about 7% of world output. Sugar contributes for the Cuban economy some 80% of export earnings and, prima facie dominates the entire economy.

Cuba’s dominance in sugar, resulted from the end of its trade with the United States after the Revolution, led by Fidel Castro in 1959. One policy resulting from the
revolution was the limitation of farm acreage to 3,000 acres, which was later lowered to 200 acres. The excess land that was available after the initial small holdings was distributed to the people, was converted into state farms, and it is on these farms that the sugar cane is grown. After the Revolution, bilateral trade with the United States ceased, resulting in Cuba having to derive alternate means of finance to pay for its imports. The former Soviet Union supported the Castro government, purchasing its cane and providing aid. In retrospect, Cuba traded capitalist dependency for socialist dependency (Farrell 1983), and both, taken to the extreme, are exploitative and unsustainable. Nonetheless, sugar was the only recourse to bridge the trade gap, and as the country has the comparative advantage in this agricultural activity, the industry became successful.

The Cuban economy grew in the 1981-85 period at a rate of 7.3%, with labour productivity growing annually at 5%. Sugar has remained crucial to the Cuban economy and experienced a growth of 12.2%, mainly as a result of increased mechanisation. The second half of the decade was projected to have a 5% growth rate, but instead the economy contracted. The gross social product (GSP), increased to a less than targeted growth rate of only 2.1% in 1988, and again declining in 1989, due partially to the falling value of the dollar, poor weather conditions, and low prices of sugar oil. The dismantling of the former Soviet Union resulted in political reform which has meant minimum support for Cuba, and subsequently economic hardship. Cuba's GSP in 1991 was approximately US$15,200, with per capita income of about US$1,446, and a growing population, estimated to be 10.5 million. Cuba will undoubtedly have to open and embrace some form of a market led economy, if its economic hardships are to be resolved.

Jamaica, unlike most Caribbean islands, because of its size, had developed a stable, fairly prosperous peasantry after emancipation, helped by the fact that the previously enslaved people were allowed to grow crops on their own plots of land. It is the success of this peasantry system that can be attributed to the relatively broad economic
base that has developed on Jamaica. The realities of the Jamaica economy are sobering however. Although based overwhelmingly on mining and tourism, the problems endemic to both in Jamaica are cause for discussion (the latter are discussed in detail in chapters eight and nine). Economic hardships are mostly evident by the low per capita income, an estimated US$604 in 1991, when national income (GDP) was US$ 1,478.4 million, and the population was approximately 2.45 million. There is apparently a gross inequality in the distribution of wealth, where high unemployment\(^2\) (17% in 1990) of a labour force of one million persists (see table 3-1 for a breakdown of Jamaica’s employment statistics).

Mining is mainly bauxite mining, unique to Jamaica in the Caribbean, and is ranked third in the world’s bauxite industry, in 1992. The bauxite industry is owned jointly by Jamaica and the former Soviet Union, but negotiations are under way to sell the former Soviet’s share to, perhaps, a Commonwealth Independent State (CIS), specifically the Ukraine, or to Japan. Bauxite and alumina exports rose to 31.8% of exports in 1990, exceeding tourism contributions, and by 1992 it had accounted for some 60% of exports, making it the most important sector in Jamaica’s economy, with a contribution of 7.8% of GDP. Bauxite does little to absorb the excess labour in Jamaica, as the industry is capital intensive, and requires skilled labour. In addition, it has poor linkages with the remainder of the economy, as are typical of extractive industries, largely because they are capital intensive, and require an industrial base.

The economy suffered tremendously during the 1970s, partially because of the socialist views of Michael Manley, the then Prime Minister until he was ousted in the 1974 general elections. The amicable relationship between Manley and Castro, and the former’s interest in socialist economies was of concern to the local elites who fled

\(^2\) Unemployment in the Caribbean is defined to be, all people out of work who can work, though they may not want to work. (FT 1993)
the country with whatever wealth they could. Further, economic pressures from the United States resulted in declining trade. In 1989, Michael Manley regained control of the government with reformed views and a primary focus of economic revival.

### Table 3-1: Jamaica Employment Statistics as a Percentage of the Labour Force 1990

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Labour Force</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Unemployment</td>
<td>17%</td>
</tr>
<tr>
<td>Agronomy</td>
<td>25%</td>
</tr>
<tr>
<td>Public Administration</td>
<td>11%</td>
</tr>
<tr>
<td>Commerce</td>
<td>13%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14%</td>
</tr>
<tr>
<td>Services</td>
<td>33%</td>
</tr>
<tr>
<td>Construction</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: FT 1993
### Table 3-2

**Long-term Debt Obligations for Selected Caribbean Countries in 1992**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANGUILLA</td>
<td>56.51</td>
<td>8.00</td>
<td>0.14</td>
<td>35.20</td>
<td>0.63</td>
<td>0.23</td>
<td>0.23</td>
</tr>
<tr>
<td>ANTIGUA &amp; BARBUDA</td>
<td>370.14</td>
<td>338.00</td>
<td>0.91</td>
<td>329.00</td>
<td>1.03</td>
<td>1.03</td>
<td>1.03</td>
</tr>
<tr>
<td>ARUBA</td>
<td>1,026.31</td>
<td>428.88</td>
<td>0.42</td>
<td>442.40</td>
<td>0.43</td>
<td>0.97</td>
<td>0.97</td>
</tr>
<tr>
<td>BAHAMAS</td>
<td>3,059.10</td>
<td>440.00</td>
<td>0.14</td>
<td>1,243.50</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>1,348.60</td>
<td>529.35</td>
<td>0.39</td>
<td>462.50</td>
<td>0.35</td>
<td>0.20</td>
<td>0.20</td>
</tr>
<tr>
<td>BRITISH VIRGIN ISLAND</td>
<td>142.77</td>
<td>35.00</td>
<td>0.25</td>
<td>109.40</td>
<td>0.76</td>
<td>0.92</td>
<td>0.92</td>
</tr>
<tr>
<td>CURACAO</td>
<td>1,468.16</td>
<td>362.23</td>
<td>0.25</td>
<td>234.10</td>
<td>1.55</td>
<td>1.55</td>
<td>1.55</td>
</tr>
<tr>
<td>DOMINICA</td>
<td>144.09</td>
<td>91.96</td>
<td>0.64</td>
<td>30.30</td>
<td>0.21</td>
<td>3.03</td>
<td>3.03</td>
</tr>
<tr>
<td>DOMINICAN REPUBLIC</td>
<td>6,841.39</td>
<td>4,649.00</td>
<td>0.68</td>
<td>1,054.80</td>
<td>1.55</td>
<td>4.41</td>
<td>4.41</td>
</tr>
<tr>
<td>GRENADA</td>
<td>169.44</td>
<td>71.37</td>
<td>0.42</td>
<td>42.30</td>
<td>0.25</td>
<td>1.69</td>
<td>1.69</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>3,289.75</td>
<td>3,678.00</td>
<td>1.12</td>
<td>850.00</td>
<td>0.55</td>
<td>4.33</td>
<td>4.33</td>
</tr>
<tr>
<td>MONSTERRAT</td>
<td>53.73</td>
<td>4.70</td>
<td>0.09</td>
<td>13.60</td>
<td>0.25</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>ST. KITTS &amp; NEVIS</td>
<td>152.80</td>
<td>37.00</td>
<td>0.24</td>
<td>67.20</td>
<td>0.44</td>
<td>0.55</td>
<td>0.55</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>392.70</td>
<td>97.40</td>
<td>0.25</td>
<td>207.90</td>
<td>0.52</td>
<td>0.47</td>
<td>0.47</td>
</tr>
<tr>
<td>ST. VINCENT &amp; G'DINES</td>
<td>197.90</td>
<td>67.60</td>
<td>0.34</td>
<td>52.70</td>
<td>0.27</td>
<td>1.28</td>
<td>1.28</td>
</tr>
<tr>
<td>TRINIDAD &amp; TOBAGO</td>
<td>5,387.91</td>
<td>2,500.00</td>
<td>0.46</td>
<td>109.20</td>
<td>0.21</td>
<td>22.89</td>
<td>22.89</td>
</tr>
<tr>
<td>TURKS &amp; CAICOS IS</td>
<td>78.70</td>
<td>2.50</td>
<td>0.03</td>
<td>47.80</td>
<td>0.62</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>24,819.13</td>
<td>13,387.89</td>
<td>0.54</td>
<td>5,561.50</td>
<td>0.22</td>
<td>2.41</td>
<td>2.41</td>
</tr>
</tbody>
</table>

* 1991
** 1990
*** market prices

Source: CTO 1993
# TABLE 3-3

ANALYSIS OF FOREIGN RESERVES
IN SELECTED CARIBBEAN COUNTRIES
1990 - 1993
IN MILLION US$

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTIGUA AND BARBUDA</td>
<td>27.5</td>
<td>32.54</td>
<td>50.52</td>
<td>38.31</td>
</tr>
<tr>
<td>ARUBA</td>
<td>97.93</td>
<td>119.59</td>
<td>142.11</td>
<td>181.24</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>117.54</td>
<td>87.25</td>
<td>139.96</td>
<td>150.45</td>
</tr>
<tr>
<td>DOMINICA</td>
<td>14.46</td>
<td>17.77</td>
<td>20.41</td>
<td>19.92</td>
</tr>
<tr>
<td>DOMINICAN REPUBLIC</td>
<td>61.6</td>
<td>441.9</td>
<td>499.8</td>
<td>651.2</td>
</tr>
<tr>
<td>GRENADA</td>
<td>17.58</td>
<td>17.47</td>
<td>25.88</td>
<td>26.92</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>168.2</td>
<td>106.1</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>MONSTERRAT</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>NETHERLANDS ANTILLES</td>
<td>215</td>
<td>177</td>
<td>220</td>
<td>234</td>
</tr>
<tr>
<td>ST. KITTS/NEVIS</td>
<td>16.28</td>
<td>16.63</td>
<td>26.24</td>
<td>29.42</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>44.59</td>
<td>48.75</td>
<td>55.46</td>
<td>59.94</td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENADINE</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>TRINIDAD AND TOBAGO</td>
<td>492</td>
<td>338.6</td>
<td>172.2</td>
<td>206.3</td>
</tr>
</tbody>
</table>

Note: ND = no data

Source: IMF 1993
He concentrated on rebuilding international resources, clearing the country's debt arrears, reducing the public sector deficit, restructuring the tax system, and reducing the current account deficit.

In 1991, several taxes were replaced by a General Consumption Tax (GCT) of 10% on most goods and services. The Jamaican debt (see Table 3-2 concerning Caribbean longterm debt) was due to overextended borrowing, the commercial banks were owed 10%, the International Monetary Fund (IMF) was owed 45%, and the remaining 45% was owed to friendly countries. National debt in the region is somewhat of an issue, as countries sought to develop further, the necessity of acquiring funds to aid that process came largely through borrowing. Therefore, debt servicing puts added pressure on the economies, through leakages resulting from higher taxation, where some islands have undergone structural adjustment programmes. And where currencies are devalued (Jamaican dollar), additional pressures are envisaged with regards to the burden of debt servicing, derived from unfavourable exchange rates.

The devaluation of the Jamaican dollar was severe, which proved to be a catalyst to social and industrial discontent. High inflation (227% in 1992) a constant problem of the Jamaica economy, was further fuelled by debt restructuring. Year-to-date ending August 1990, the inflation rate was 56%, followed by increases to 167.8% in 1991, which precipitated substantial increases in electricity, telephone, water, and food costs. To relieve the recession, the government increased its budget allocation by an additional US$48.40 million, which was to be spent on public goods. The allocation of additional funds increased public spending from US$174.99 million to US$187.93 million, at current exchange rates.

During the first quarter of 1991, the economy grew as it had in 1990. An IMF test proved that the external accounts, and the corresponding reactions in the domestic economy were in line with forecasts. Additional loans of US$10 million were obtained in March 1991 from three banking sources to assist with balance of
payments, which helped in the adjustment of the economy. These loans however, increased total external debt to US$4.5 billion. To control liquidity, the government employed monetary policy measures to reduce pressure on the exchange rates. Foreign reserves remained however, adequate (see Table 3-3).

**TABLE 3-4**

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>GDP</th>
<th>GOVERNMENT SPENDING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$ million</td>
<td>US$ million as %GDP</td>
</tr>
<tr>
<td>ANGUILLA</td>
<td>58.0</td>
<td>8.70</td>
</tr>
<tr>
<td>ANTIGUA &amp; BARBUDA</td>
<td>373.2</td>
<td>75.74</td>
</tr>
<tr>
<td>ARUBA</td>
<td>610.7</td>
<td>146.57</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>1,446.3</td>
<td>306.00</td>
</tr>
<tr>
<td>BERMUDA</td>
<td>1,640.9</td>
<td>216.60</td>
</tr>
<tr>
<td>BRITISH VIRGIN ISLANDS</td>
<td>417.1</td>
<td>70.91</td>
</tr>
<tr>
<td>CAYMAN ISLANDS</td>
<td>739.2</td>
<td>112.00</td>
</tr>
<tr>
<td>CUBA</td>
<td>15,198.0</td>
<td>969.00</td>
</tr>
<tr>
<td>CURACAO- N’LD ANTILLES</td>
<td>1,104.5</td>
<td>265.08</td>
</tr>
<tr>
<td>DOMINICA</td>
<td>158.3</td>
<td>39.00</td>
</tr>
<tr>
<td>DOMINICAN REPUBLIC</td>
<td>7,313.0</td>
<td>227.00</td>
</tr>
<tr>
<td>GRENADA</td>
<td>210.1</td>
<td>40.00</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>1,478.4</td>
<td>258.00</td>
</tr>
<tr>
<td>MARTINIQUE</td>
<td>4,130.0</td>
<td>1,362.90</td>
</tr>
<tr>
<td>MONSTERRAT</td>
<td>63.0</td>
<td>13.70</td>
</tr>
<tr>
<td>ST.KITTS &amp; NEVIS</td>
<td>154.9</td>
<td>37.18</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>367.9</td>
<td>58.00</td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENAADINES</td>
<td>189.1</td>
<td>35.93</td>
</tr>
<tr>
<td>TRINIDAD &amp; TOBAGO</td>
<td>5,275.3</td>
<td>798.00</td>
</tr>
</tbody>
</table>

Sources: Charles 1994
UN 1993
IMF 1993
One measure was by the issuance of millions of dollars in financial paper by the central bank, at interest rates above 35%. The wisdom of this policy is debatable, since the issuance of 'bonds' only serves to increase the national debt, the opposite objective of the restructuring programme. Nevertheless, the short term goal of consumption contraction would be achieved, since it would be more desirable to hoard than to spend money, which would restrain consumer spending, and ease inflation.

The economy is dependent both on the US market for tourism demand and the EU for agriculture production demand, as well as increasing trade within the regional market, through Caricom. Similar to the region at large, Jamaica has high imports, and as a result has experienced persistent balance of payments deficits, which have been significantly reduced from US$388.4 million in 1982, to US$131.6 million in 1991. The constant challenge as in most of the region is the reduction of the budget deficit. The decade of the 1980's has shown some successes, in 1988, the deficit declined to US$60 million, but increased again, in 1990, to US$340.10 million. The inability of the government to reduce the budget deficit is partially due to continued fiscal problems and the high debt service. Nevertheless, Jamaica is committed to a diverse economy whereby industries that are prone to erratic world prices are sustained by the government. In 1992, the Caribbean Development Bank issued credit of US$8 million, to the Agricultural Credit Bank of Finance of Jamaica, for medium and long-term investment in the agriculture and fisheries industries (FT 1993).

Of all the islands, the Dominican Republic economy is most comparable to Cuba, although not perhaps politically. There are some similar fiscal problems however, in common with the other islands regarding trade deficits and debt servicing, but this is where the similarities end. Its economy *sui generis,* is the most dependent on the US, unlike the other nations who depend on a combination of both the US and the EU, with a greater dependency on the EU. It has however, experienced significant growth in recent years in free trade zone activities, tourism and non traditional exports. As it is largely dependent on the US, it is extremely vulnerable to external protectionist
policies. Vulnerabilities are mostly apparent where quotas of sugar, oil, and nickel prices are concerned. The economy did not grow in 1991, GDP fell by 5.1% to US$5,0375 million, when per capita income was US$2,205. The overriding problems are high unemployment, inflation, energy production, tax reform, inflexibility, unrealistic exchange rate policies, and the inability to reduce the foreign debt.

The Dominican Republic has duty-free privileges in the US, under the Caribbean Basin Initiative (CBI) scheme (it is the greatest beneficiary of that scheme in the region). In addition, free zone companies import inputs duty-free, and exports tax-free finished goods. Foreign investors are attracted to this country, where cheap and plentiful labour would ensure higher profits. Offshore financing increased in 1992, and it is a priority of the government to increase activities in this area further. After much deliberation and support from Spain, the Dominican Republic was accepted as a member of the African, Caribbean, Pacific (ACP) group of countries, under the Lomé Convention, in December 1989. As a member of Lomé, it has direct access to European markets and preferential treatment for goods. Exports to the EU during June 1990 and May 1991, totalled US$20.8 million, 55% of which was bought by Spain and Italy.

Unemployment is extremely high, among the highest in the Caribbean, at 30% of a labour force of 1.8 million, in 1990, and continues to grow. The continued increase in population growth rates, a factor that is not apparent in the rest of the Caribbean, is one underlying reason for the high unemployment rates. The population in 1991 was an estimated seven million. Poverty is an overriding concern, which affects mostly youths (The World Bank 1994).

The disenfranchised live in squalor and destitution, thus high incidences of outmigration to the US, and other parts of the Caribbean have resulted. It is this migration threat that has probably been one of the incentives for the US' keen interest, in the Dominican Republic's economic development. Poverty is the most
pressing issue in the Dominican Republic, only Haiti is in a worst position. The lack of facilities to provide basic education is another immediate problem. Aid from the US valued at US$17 million for a Primary Education Project, partially financed by a US$15 million loan from the World Bank, is expected to somewhat rectify this deficiency. An additional loan was obtained from Inter-American Development Bank for US$29.3 million in 1991, which should help to alleviate some of the education problems.

<table>
<thead>
<tr>
<th>TABLE 3-5</th>
<th>BARBADOS ENERGY PRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ENERGY</th>
<th>OUTPUT</th>
<th>PERCENTAGE increase from 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUDE OIL (million barrels)</td>
<td>5.1</td>
<td>16.7%</td>
</tr>
<tr>
<td>NATURAL GAS (million cubic meters)</td>
<td>32.9</td>
<td>3.7%</td>
</tr>
<tr>
<td>SUPPLIES TO HOUSEHOLDS</td>
<td></td>
<td>31%</td>
</tr>
</tbody>
</table>

Source: FT 1993
The primary aims of this project are to increase primary school enrolment, especially in the rural areas, to improve teaching methods, and to maintain the educational infrastructure, and to provide for rural children. In 1991, government spending was a mere 3% of GDP, compared with countries with comparable GDPs, such as 33% by Martinique and 17% by Jamaica (see Table 3-4). The socioeconomic situation of the Dominican Republic will not improve if the government does not increase spending on social programmes, as these programmes should provide for the basic needs of its citizens. The lack of adequate education is not a problem in any of the other Caribbean islands (except Haiti). In many ways, the Dominican Republic falls way behind the rest of the region, in terms of basic needs and development.

Agriculture is the main employer, providing about 50% of employment, rivalled by no other nation in the region. The government sought IMF's assistance, renegotiated the debt of US$926 million with the Paris Club, and underwent structural reform in 1990. These fiscal measures were needed to stabilise and reduce inflation, which went from a high of 100% to 4% by 1991. The trade deficit contracted from US$1,142.1 million in 1991, from US$1,058.2 million, in 1990, but because of the devaluation of the peso ($RD), increases in prices of petroleum products have resulted. The devaluation of the peso has resulted not only in higher petrol prices, but also higher prices of essential products, which has served to hinder economic growth. Higher petrol prices meant that electricity blackouts were experienced up to three to four hours daily, although it was an improvement from 16 hours in previous years.

Although the potential is enormous and the economy has considerable outside support, the standard of living is very low, epitomised by the per capita income of US$719.6, in 1991. If per capita income is a good measure of a country's citizens economic well-being, then the standard of living in 1991 was extremely poor, well below the region's standard and most certainly that of the West. The ongoing challenges of the
government are to curb the population growth rate through education, to create ways to provide more employment, and to improve the economy’s performance.

In contrast, the Cayman islands have one of the most thriving economies in the Caribbean, high standards of living, and minimal unemployment. Inflation was somewhat high at 6.6% in 1991, and rose to 8% in 1992, possibly due to cost push factors since there is virtually full employment, and businesses have to compete for labour. There is a constant growing need for skilled workers, which is filled by the importation of labour. Expatriates make up approximately 40% of the total labour force, with representation by 50 countries. The government invests heavily in education and training, but with an economy that demands more jobs than the citizens can provide the importation of outside employees is still necessary. The islands’ prosperity is due to an economy based solely on the services sector, offshore financial activities and tourism. Real GDP grew 10% in 1990 to US$691.82 million, resulting in an approximate US$27,888 per capita income, with a population of approximately 25,100. Per capita income is the highest in the region and the Western world, outstanding for a small British colony in the Caribbean.

The islands’ tax haven privileges have a long history, where legend has it that in 1788, 10 British ships were wrecked off the then Tortuga, where King George III granted the islands freedom from taxation as a reward for the rescue. Sir Francis Drake landed there in 1586, during the height of the buccaneering period, when the islands were used as refuge by buccaneers of all creeds. Legend or not, the Caymans today are a tax shelter for offshore financial companies, specifically Euro-currency dealings. Sophisticated communications render this possible, including the proximity to the United States of only an hour from the US mainland. There are no personal or corporate income taxes, no property or profit taxation, and no exchange rate controls. Forty percent (40%) of the world’s largest banks are registered there, 23,808 companies, including 546 banks, and 565 insurance companies. Bank assets increased in 1991, to US$432.8 billion.
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The Bahamas have a fairly thriving economy based on tourism, that has had an early start due to its proximity to the US. The population was an estimated 253,000 in 1993, with an estimated per capita income of US$13,437. The economy, based on tourism, has been as successful as the Cayman Islands and Bermuda, but problems during the 1980s have caused economic slowdown. The government has devised a programme that should enhance the tourism image, and should increase the competitiveness of the offshore sector, and legislation is being proposed to encourage a broader-based economy. Tourism has become mass-market, relying on charter business, which in the longrun, adds little benefit to the economy as a whole, as per capita spending is generally low. Tourism will remain the most important sector of the economy as the islands have little else to exploit, thus, the maximum economic benefit must be derived. The economy is extremely open, with no direct taxation, no restriction of the repatriation of profits and dividends, and no investment restrictions, which would be appealing for the offshore sector. Investors are offered residency and a 25-year tax holiday worth over US$2 million, if an investment is made in a home worth US$250,000 and the same in a local enterprise.

The Bahamas have two immediate challenges, Haiti and Cuba. Haitian refugees make up 20% of the population, and as they are unskilled, they place notable pressures on the social services. The inevitable competition from Cuba in the tourism industry is a challenge that must be faced in the future. The economy records a substantial trade deficit, largely because of imports that amount to 40% of GDP, as the Bahamas import 80% of food requirements. Although the Bahamas enjoy a high standard of living, there are concerns about the Bahamas' ability to compete in tourism, especially with rising energy cost and the compulsory 17% gratuity rate. Moreover the unemployment rate is over 10%, (a structural situation as there are surplus skilled jobs, including technical jobs). During 1991, the current account balance was in deficit, thus the government proposed a US$10 million tax increase, and borrowings of US$86 million in an attempt to raise revenues and close the financial gap of US$96 million. This is however, a short-term view, as the financial gap can only be closed.
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with the lowering of imports and an increase in exports. The government has to be creative in devising a method to increase economic growth, while lowering imports, and keeping inflation intact. This can be achieved in part by the increases in technological use, by encouraging more import substitution, austere fiscal management, and entrepreneurial activity.

The Turks and Caicos islands have a similar economic structure as the Cayman Islands, BVI, and most of the Leeward Islands, based overwhelmingly on the services sector. Economically it is not as developed as most of the Leeward Islands (the only area that it can be compared with). Its Gross Domestic Product (GDP) in 1987 was estimated to be US$49.3 million, and US$63.1 million in 1988, a real GDP growth of 3.5%. Nonetheless, its per capita income in 1988 was US$5,109.31, indicating that the country’s population (12,350) is among one of the more well-off. Unemployment however, was high at 12% in 1989, which suggests that deficiency problems exist within the economy, as it is unable to provide enough jobs for all its citizens. The unemployment rate is possibly structural, similar to the Cayman islands, given the boom in the offshore financial sector.

Tourism remains at low levels, probably because of a lack of awareness, thus increases in arrivals should aid in the absorption of some of the excess labour force. As a UK colony, financial support had been the norm, but UK budgetary support has been discontinued and is replaced by aid to support economic development. In 1986/7, aid of US$17.2 million was received, increasing to US$24.1 million in 1988/9, and to an estimated $44.4 million in 1989/90. Economic development funds will not continue forever, therefore the ability of the government to make the most of the funds to effect the development process is an important issue to the nation’s economic survival.

The Turks and Caicos’ economy is extremely open, (similar to most of the islands in the region). It is tax-free, and the US dollar is the national currency, which should
be an incentive to foreign investors. The government passed an ordinance for banking in 1979, and an insurance ordinance in 1981 to support the islands’ position as an offshore financial sector. As a result, there were about 6,730 companies registered on the islands by 1989, where fees were being projected to $2.2 million, a 12.5% increase from 1988. The sector is primarily involved with the efficient setting up of companies, trust businesses, and specialised insurance. Turks and Caicos islands are marketed as a financial centre, supervised by a regulatory authority to prevent abuse. However, there is a good degree of financial freedom and confidentiality. The successes of the Cayman Islands, Bermuda, and BVI in offshore financial services, and the positive impact to their economic development are models that the Turks and Caicos islands are patterning.

Bermuda has a relatively good economy, and is one of the model economies of the region (McElroy and de Albuquerque 1992b). The economy is based on the services sector, where tourism and offshore finances are the backbone of the economy. Prices for the purchase of property and renting are inflationary however, partially because of the pressure on the land to accommodate the relatively large population (60,600). The economy has relied on a large expatriate community for skilled employment, but steps have been taken via higher educational opportunities for the local people to curb this practice. As a result, there has been about a 3% reduction in 1990 of expatriate labour, to 22.5% of the work force. The reduction of expatriates in the Caribbean economies is a sin qua non to economic development, as remunerations instead of being repatriated would circulate the economy, and savings can then be mobilised for investment. Additionally, there appears to be governing which is focused, although an environmental programme is urgently needed concerning waste disposal, water quality, and urban sprawl (FT 1993). Notwithstanding the environment, the economy is well managed and there is no poverty, and a high standard of living and a well-educated public are apparent. Investment is advanced as there is no income or capital gains tax, although a significant 'cocktail' of indirect taxes is imposed by the
government. The nation has benefitted from being a tax-haven for international insurance companies registration, which was approved in 1988, by the US Congress.

The government’s fiscal revenues are derived from customs duty, accounting for 40-50% of total revenue, company fees, stamp duty, land tax, hotel occupancy and passenger taxes. In 1990, higher taxes have been placed on alcohol and tobacco, and licence fees were increased for vehicles, boats and banking. Unlike most of the Caribbean, unemployment is negligible, and in 1990, inflation was low at 3.1%, even with high property prices. Bermuda’s economy thrives as its lucrative offshore business sector benefits from inter alia, good communications, liberal foreign exchange regulation, minimal taxation and tight secrecy towards its offshore investments. The economy is heavily dependent on the economic and political climate of the US, similar to the Dominican Republic and the Caymans’ economies. Most companies established in Bermuda are from the US. Its GDP grew by 4.6% during the 1989/90 financial year, by about 5.9% in 1990/91, to US$1.67 billion, placing per capita income at a nominal US$27,557.76, the second highest in the Western Hemisphere, after the Cayman Islands.

Leakages in Bermuda are high however, due to the high marginal propensity to import, especially where food products are concern, but manufactured goods, machinery, transport equipment are also imported. The high percentage of expatriates, signify high leakages from the economy. Visible exports are minimal, and are generally confined to re-exports of some merchandise exports, synonymous with the rest of the region, hence there is an expanding visible trade deficit. Earnings, from the service sector, offshore finances and tourism, are unable to fully offset Bermuda’s balance of payment deficits.

The British Virgin Islands (BVI) economy was 86.71% services base, in 1988, accounting for a value added of US$122.66 million, at factor cost and current prices, consisting mostly of de facto tourism and offshore financial services. In 1991, GDP
at factor cost and current prices was an estimated US$417.10 million, and per capita income was US$25,371.05, with a population of 16,444. The British Virgin Islanders enjoy a relative high standard of living in a stable, well-adjusted economy.

During the epoch of slavery, sugar and cotton plantation in the BVI thrived on the islands, but by early 1900s land was broken into small plots, 37% of which was owned by the local population, 39% was crown land, and 24% belonged to foreigners. The islanders were mostly landowners, agriculturalist and fishermen, cultivating small farms, and fisheries. Today, the local population prefers service sector employment and construction, where approximately 46% is employed in tourism and unemployment is almost nought. In some cases there is surplus employment, filled by imported labour from the Eastern Caribbean, which accounts for 40% of the labour force.

The trade deficit was US$18.9 million in 1988, mostly because of high imports, of food, machinery and fuel, and low exports. Exports in 1988 were US$146 million, when the current account balance was a deficit of US$17.2 million. The BVI trades primarily with the US, Puerto Rico and the US Virgin Islands, in both goods and services.

Financial services benefitted enormously from the 1984 International Business Company Legislation, including good communication facilities, and the adoption of the US dollar as the official currency. The financial services sector expanded rapidly over the past five years growing, and in 1990, the sector grew by 20%, rivalling tourism as a top earner of foreign currency. Similarly to The Caymans, Turks and Caicos and Bermuda, there are no foreign exchange regulations. BVI registered companies are tax exempt. However, there is local direct taxation, at quite a low rate.
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The success of the Antiguan and Barbudan economy can be termed as mixed. Unemployment is negligible, partially due to the restrictions on immigrant labour, and tourism development has been relatively successful. However, because of cost push factors (the relatively high wage costs), inflation in the years preceding 1992, increased, but has since stabilised. The government’s main sources of revenues are derived from indirect taxation, from company taxes (40%), import and stamp duties, and tourism taxes. Imports on Antigua and Barbuda are one of the highest in the region, mostly for food, fuel and manufacturing goods, which result in substantial trade deficits. In October 1991, the trade deficit was US$270 million. In 1990, foreign debts totalled US$250 million, and are expected to increase to almost US$400 million by 1995.

The debt obligations are particularly high, and must be addressed as debt service is likely to become a problem, as was the case in Jamaica, Trinidad and St. Lucia, when they were forced to administer Structural Adjustment Programme (SAP). In 1992, the debt servicing commitments were US$7 million annually, whereas the outstanding debt was US$338 million. In 1992, GDP was US$ 370.14 million, and debt per GDP was an estimated 91% of GDP, thus at this rate the outstanding debt is unsustainable. In 1995, as was expected, the government conducted a self administered structural adjustment program (SAP), to reduce spending, an attempt at lowering the national debt.

The long decline in agriculture and the inability to creation backward linkages have reduce the tourism income multiplier, to an estimated 0.88 (Archer, 1979), a figure that is likely to be accurate today. GDP increased moderately during the 1980s, to US$435.19 million, or by 3.79%, in 1992. Antigua’s per capita income was an estimated US$6,810.56, with a population size reported to be 63,921 (1992 census).

Barbuda’s (the joint nation with Antigua) main export is lobsters, where about 260,000 pounds are exported annually, valued at US$462,960 per year. There are
only two small hotels, as the tourism industry is in its primary stages. Emigration to Antigua and aboard have kept the population constant, at approximately 1,800, living in the only town of Codrington.

Recent economic growth in the Leeward Islands has improved the islanders' livelihood, where further development has taken place, particularly during the latter half of the 1980's. In 1992, GDP grew 8.13%, to US$176.96 million, and per capita income was US$4,244, with a population of 41,690. In 1992, Anguilla's GDP grew by 11.5%, to US$66.29 million, while the population was only 9,200, and per capita income was US$7,205.47. In 1992, Montserrat's GDP increased by 7.34%, to US$63.34 million, with a population of 10,904, and per capita income of US$5,331.

Unemployment is highest on St. Kitts and Nevis at 8%, but is negligible on Montserrat and Anguilla. Inflation has risen on the islands to approximately 4% on Montserrat in 1991, 4.2% on St. Kitts and Nevis in 1990, and 4.6% on Anguilla in 1991, due in part to demand pull factors. Construction on the tourism superstructure on St. Kitts and Nevis, Montserrat and Anguilla is responsible for the high GDP growth rates and increases in employment rates to near full employment on the latter islands, but has fuelled higher levels of inflation. The increases in Montserrat's economic activities are due in part to the rebuilding programme after the devastation of hurricane Hugo.

The Leeward islands, without exception, suffer from trade deficits because of the large volumes of imported food, fuel, manufactured goods and machinery. In 1990, St. Kitts and Nevis had a visible trade deficit of US$83.07 million, and US$63.4 million was received from tourism earnings, capital inflows and remittances. In 1991, nonfactor incomes from abroad were insufficient to reduce the trade deficit further than US$19.67 million. Montserrat is one of the few islands that had recorded fiscal surpluses on operations of about US$1.1 million, in 1990. Commodity trade is
mainly with Caricom countries, and tourism demand originates in the US where the island specialises in ‘retirement’ tourism.

Anguilla’s trade deficit was US$32.22 million, offset in part by services earnings, specifically tourism services earnings of US$29.3 million. Anguilla also had a current account surplus in 1990 of about US$740,741, and US$1.85 million, in 1991. There are no personal income tax, capital gains tax, value added tax, or death duty on Anguilla, St. Kitts and Nevis, but Montserrat has low personal tax. The governments’ main sources of revenue are company taxes (40%), customs and stamp duties, bank licensing fees, property taxes, and tourism taxes. The present economies are well positioned, and continued committed government adherence to sound economic development policies, should increase economic development. The challenge remains in the need to diversify the economies, into other economic activities.

The French Antilles’ economies depend on both tourism and agriculture. St. Barts and St. Martin are part of the Leeward Islands, and have successful economies based on tourism. The larger islands are geographically part of the Windward islands, and are largely based on agriculture, similar to the neighbouring Anglophone Windwards. The close political relationship with France has resulted in their heavy reliance on subsidies and capital transfers, of about 70% of GDP, (particularly Guadeloupe and Martinique). Guadeloupe’s social order is volatile, partially due to an expanding population of 17% since 1982 to 1992 (with immigrants from Dominica and Haiti), and the separatist movement (Hintjens 1992). In 1991, GDP in Martinique was US$4130 million, and per capita was US$1,485, when the population was 359,372. In 1991, Guadeloupe and its dependencies, St. Martin and St. Barthelmey had an estimated population of 416,100. Unemployment is high on both islands, at 30% of the labour force, despite the subsidies.
Unemployment is seemingly an endemic problem of the economy, and the economies are still overwhelming agriculturally based, after over 350 years, of having remained at the first stage of development. Chronic unemployment provides the incentive to migrate unabated to the metropolis, one of the vexing problems plaguing the French West Indies. The lack of will to diversify the economies away from agriculture into, perhaps, services renders the economy incapable of absorbing the excess labour. The islands benefit from their relationship with France, in view of the relatively good provision of basic needs, standards of living, infrastructure, efficient health and education systems, and social services.

The benefits however, do not dispel the underlying problems of emasculation, so prevalent on Guadeloupe, as unlike Martinique, it never achieved the same level of colonial prosperity. Moreover, the economies of these two islands suffer from economic stagnation, huge balance of payment deficits, and economic lethargy. Higher levels of regional autonomy, if utilised constructively, should position these islands to follow their own destinies. A spirit of industriousness, which is a much needed prerequisite to stimulate entrepreneurship and enterprise, should result in a diversified economy. Self-guidance and dignity are paramount to the fulfilling of one's self-interests, which should foster economic activity.

The ability of the economy to foster entrepreneurship and private sector activities have been somewhat obliterated, due to the high degree of social transfers. The islands' ability to forge their own path as a nation, would given the chance, foster dignity and self-determination. It is dubious whether the French Caribbean, can effect their own economic development. In general, discussions pertaining to economic development in the French West Indies is a mute point, as they are a 'région' of France the islands are French, thus they are part of the developed world.
### TABLE 3-6

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>GDP at factor cost and current prices US$ millions</th>
<th>AGRICULTURE VALUE ADDED US$ millions</th>
<th>PERCENTAGE AGRICULTURE TO GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANGUILLA</td>
<td>56.51</td>
<td>2.59</td>
<td>4.6%</td>
</tr>
<tr>
<td>ANGUILLA &amp; BARBUDA</td>
<td>370.14</td>
<td>15.26</td>
<td>4.1%</td>
</tr>
<tr>
<td>DOMINICA</td>
<td>144.09</td>
<td>36.46</td>
<td>25.3%</td>
</tr>
<tr>
<td>GRENADA</td>
<td>169.44</td>
<td>23.59</td>
<td>13.9%</td>
</tr>
<tr>
<td>MONSTERRAT</td>
<td>53.73</td>
<td>2.33</td>
<td>4.3%</td>
</tr>
<tr>
<td>ST. KITTS &amp; NEVIS</td>
<td>152.80</td>
<td>9.29</td>
<td>6.1%</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>392.70</td>
<td>55.42</td>
<td>14.1%</td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENADINES</td>
<td>197.90</td>
<td>33.25</td>
<td>16.8%</td>
</tr>
</tbody>
</table>

Source: OAS/OECS, Antigua
Dominica (part of the Windward group) is one of the poorer islands in the region (Potter 1993), where the economic situation before the 1970s was unstable. The economy is based largely on agriculture, but there are some light industries, which contributed in 1991, 6.42% of GDP (see Table 3-5). However, Dominica's economy has been unable to meet the employment needs of the labour force, as in 1991, unemployment declined was approximately 11% of the work force. The level of economic development was stalled, due to slow GDP growth rates. An IMF aided structural readjustment programme, and the adoption of fiscal policies during the 1980s, aimed at correcting the problems of the national economy were successful. Inflation rates were stabilised, and government revenues sources shifted from direct to indirect taxation, which resulted in 1992, a current account surplus of US$10.7 million. In 1992, GDP grew in 1992 by 5.4% to US$189.46 million, and per capita income increased to US$2,650, when the population was 71,900. The extensive growth, since the restructural programme and the increase in tourism activity of a nominal 134.4% from 1988 to 1992, is impressive. To put Dominica's GDP into perspective, when compared with St. Lucia's (US$470.96 million at current prices, in 1992), St. Vincent and the Grenadines' (US$226.56 million), and Grenada's (US$214.07 million), it is the lowest in the Windwards.

Dominica's import bill, although not as proportionally as high as the other Leeward islands, is nevertheless significant, as the country consumes much of its own agricultural product. In 1992, the trade deficit was US$53.7 million, and the current account balance was US$9.32 million. A notable increase in tourism arrivals would result in large increases in imports, unless its agriculture is reorganised.

The main problems facing the economy of Dominica are high unemployment, low GDP growth rates of an already low GDP figure, and a low per capita income. The economy's performance indicates that, the government needs to continually adhere to sound economic policies to render improved economic growth. The government however, was forward thinking in its economic development process, prima facie the
reorganisation of the economy. The government is committed to improvements in agriculture, manufacturing, tourism and energy production, and supports closer regional integration. In 1991, a Laudat hydro-electric power station was built, which meets two-third of the island’s energy supplies. As energy is normally another significant leakage from the economies, any measure to minimise energy imports should be encouraged.

The economy urgently needs a major injection of foreign investment, as it is unlikely that local sources are in the position to invest the large sums of money needed to improve its tourism sector. Moreover, crop diversification is essential, if the economy is to extract as much benefit as possible from its tourism sector. A few schemes have been set up to increase the marketing efforts for all produce, including guarantees for farmers diversifying into new crops.

Agroindustries need to be encouraged, by marrying agriculture with manufacturing, of which Dominica has the potential. The island produces a range of toiletries made from cocoa and bay leaves, such as cocoa butter and bayrum lotion. Dominica’s present economic livelihood, depends on the inclusion of bananas as a commodity that obtains preferential access to the EU under Lomé. Nonetheless, diversifying away from export bananas into other crops seems advisable, as preferential access will not be an indefinite privilege. The island is experiencing steady growth, but diversification into other lucrative economic sectors within the service industries and food crops, undoubtedly should continue to facilitate economic growth.

St. Lucia’s economy grew during the 1980s, based primarily on three sectors, agriculture, tourism and a developing light manufacturing sector. In 1992, GDP grew by 9.58%, to US$470.96 million, with per capita income of US$3,409.05 and population of 138,150. In 1990, St. Lucia had one of the highest banana yields, the largest manufacturing sector, and the most thriving tourism product in the Windwards.
The tourism sector has problems however, with about 51% of the room capacity as all-inclusive, the potential for leakages is enormous.

St. Lucia has the highest share of all-inclusive hotels in the Caribbean, where the massive benefit to the economy could be circumvented by tax avoidance, an easy accomplishment given the nature of this type of facility (CTO 1994). Tourism revenue tend to leak out the economy because of the high marginal propensity to import, despite the island’s ability to grow its own food. Bé lisle (1983) noted that about one third of tourism expenditure can be attributed to food related purchases. The potential exists for more leakage through the 'all-inclusive' chains, due to their bulk buying (CTO 1994). The high expatriate presence implies that large amounts of remuneration do not circulate the national economy, and in addition, significant amounts of profits are repatriated. Moreover, the all-inclusive properties do not encourage the use of local facilities, as all the requirements of the guests are provided. Additionally, tourists are enclosed in an enclave type compound, where host/guest contact is reduced, with the potential to fuel local animosity. Hotels of this sort may do little to promote economic growth and are, at their worst, mostly exploitative.

In 1992, the problems of leakages were apparent at all levels of the tourism sector and the national economy, as epitomised by the trade deficit of US$514 million. The constant challenge is employment creation, which tourism provides, to coincide with the expanding workforce. A regional job creation strategy, could aid in the narrowing of the employment gaps that exist in the Windward Islands in specific, and the Caribbean in general.

St. Vincent and the Grenadines’ economy is similar to that of Dominica, based largely on agriculture, with a difficult terrain to develop. In 1992, GDP grew by 8.49% but remains one of the lowest in the region at US$226.56 million, with per capita income of US$2,110.43, and a population of 107,351. The main deterrent to economic
activity is the lack of adequate infrastructure, due to the topography of the main island of St. Vincent. The main exports are agriculture related products, and most commodities are imported, 30% of which comes from the UK, followed by the USA, Canada, and Trinidad and Tobago.

The new hydroelectric plant should somewhat reduce the import bill for fuel imports, as in 1989, St. Vincent and the Grenadines’ trade deficit was US$52.89 million, agitated by a decline in exports of 12.5%, and an increase in imports of 4.2%. In 1990, GDP grew by 8.85%, and in 1991, by 9.2%, one of the highest growth rates in the Caribbean.

Unemployment rates are high, as are endemic in the Windwards, estimated to be about 30%, the highest in the Commonwealth region. In an attempt to improve standards of living, the government has introduced a minimum wage of EC$20.25 (US$7.50) per day, drastically low, but feasible without harming the employment rate. St. Vincent and the Grenadines seem to have limited options to facilitate their economic development. There is an immediate need for a good communications network, so vital to attract foreign investment, which would inject some well needed activity in the economy through international trade. The Grenadines have the only notable tourism development, and St. Vincent’s is limited as a tourist resort because of its relative inaccessibility. Strategic visionary leadership is needed to improve the economic performance, growth, development and living standards.

Barbados is relatively prosperous, based largely on tourism, but agriculture (sugar) and manufacturing are important economic sectors. Oil and gas are its main natural resources, and gas pipelines supply 31% of households (see Table 3-6). Its economy was the only one in the Caribbean to contract from 1990 to 1992, after seven years of expansion. The reduction in government spending has partially resulted in the economy contracting, due in part to the government’s inability to acquire more debt (Anyadike-Davies 1994). Nonetheless, Barbadians enjoy a high standard of living
comparatively with the region, its per capita income in 1991 was US$5,259.27, similar to the more prosperous Leeward islands. Its relatively large population (275,082, in 1990) suggests that the distribution of income might be unevenly distributed. GDP declined by 3.1% in 1990 to US$1,482.67 million, declining further by 4% in 1991 to US$1,446.29 million.

### TABLE 3-7

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PERCENTAGE GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOMINICA</td>
<td>6.42%</td>
</tr>
<tr>
<td>GRENADA</td>
<td>5.25%</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>7.33%</td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENADINES</td>
<td>8.49%</td>
</tr>
</tbody>
</table>

Source: OAS/OECS, Antigua
In 1990, imports were US$7,453.95 million compared with exports of only US$215.05 million, which resulted in a balance of payment deficit of US$93.30 million. Exports declined because of, inter alia, the unexpected decline in tourism, the worst sugar production in 60 years, and rising consumption levels. Inflation doubled to 6.3%, due mostly to demand pull factors. In an attempt at redressing the economic distress, the government received a package loan of US$64.9 million from the IMF in February 1992, to spur GDP growth to a projected 2% in the following year.

Fiscal policy stabilisers were imposed; taxes, a surcharge levy on luxury goods of 20%, tax increases on consumption, motor fuel, increases in tax concessions to increase the level of foreign investment, and a shift in emphasis from imports to exports. Public spending contracted in an attempt to reduce the import bill, including the reduction in wages and salaries of public sector employees. The elimination of temporary jobs and expansion of permanent ones, resulted in cost reductions of US$16.45 million. Emphasis has been placed on business and the efficiency of the private sector. Direct taxes are already high for individuals at 20-50%, but are among the lowest in the region for companies (25%), as the norm is 40%, which indicates that the business sector is important to the Barbadian economy.

According to economic theory, high personal income tax reduces disposable income, but only curbs inflation when the economy is near full employment, (which is not so with Barbados). This supply-side strategy of low taxes should increase economic activity, as enterprises have more money to invest. Further, it might act as an incentive to operate businesses, such that entrepreneurships might thrive, which will create the much needed employment and economic framework, and to increase economic growth rates (Shaw and Williams 1990). The fiscal policies of the government however, might only be a short term solution, as the difficulties surrounding the economy are largely due to size limitations. Economic development once achieved, must be worked at to prevent regression. This is a lesson that some
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of the most advanced nations have failed to adhere to, although economic integration seems likely to be the only answer to increase further economic growth. In the absence of sustainable development policies and good sound fiscal management, sustainable growth would be unattainable.

In 1992, Grenada and the Grenadines’ economy grew by 3.09%, to US$214.07 million, among the slowest in the region, with per capita income of US$2,407.26, similar to Dominica, with a population of 88,927. As is to be expected, in Grenada imports are high, resulting in 1992, a balance of trade deficit of US$37.40 million, which was partially offset by tourism revenues. Unemployment was approximately 25% of the labour force, with no immediate hope for job creation to alleviate this problem.

In 1986, income tax reforms resulted in the replacement of direct tax by value added tax (VAT). As a result, government revenues fell consistently, but private sector activities increased considerably. In 1992, the government reimposed a form of income tax, a controversial 10% levy on salaries exceeding US$4,444.44 per annum, including indirect taxes of US$.80 on cruise ship visitors. VAT however, was reduced from 30% to 27.5% on most items, partially because of administration difficulties and its effect on regional trade. In 1990, the economy grew by 5.2%, despite a 12% reduction in exports; due partially to pricing problems of nutmeg and mace before the 1987 agreement with Indonesia, and a reduction in banana production, which was offset by the 28.6% increased in cocoa production.

Tax reform is a fiscal instrument that most governments use to maximise government revenues, to control spending, to redistribute income, to gain political advantage. Grenada is a member of a custom union called, the Organisation of Eastern Caribbean States (OECS), which is comprised of the Leeward Anglophone islands, Dominica, St. Lucia and St. Vincent and the Grenadines. These islands share the same currency (the Eastern Caribbean Dollar), and thus the same central bank. The ability to
to curb spending is limiting, as each member must agree before any changes can be made. These are some limitations of a centralised banking system, thus individual governments mostly implement tax reforms, both direct and indirect, to control the economy. This is therefore, the underlying reason for continual tax reform, especially during austerity programmes.

After emancipation the population doubled, and this placed increased pressure on the land. Grenada had the second highest population density in the Caribbean resulting in migration to other islands in the region, particularly to Trinidad, the UK and North America. Emigration has stalled since opportunities to do so have been curtailed, but *sui generis* the temptation to emigrate because of economic reasons is stronger in the Greater Antilles, than the Lesser Antilles. Tourism is labour intensive, second in importance to agriculture on Grenada, and should aid in reducing the high unemployment. Tourism has been the impetus for economic growth in many Caribbean islands, a factor recognised by the government. Subsequently, several projects have been undertaken to improve the product, by the improvement of basic necessities, such as the infrastructure, water, telephone, and electricity. These improvements should increase efficiency and by extension, render larger increases in economic growth.

The Trinidad and Tobago economy regressed significantly from 1983 to 1989, contracting by 5.3%. In 1991, GDP was US$5275.3 million, with per capita income of US$4,350, with a population of 1.2 million. Unemployment is as high as 23% of the labour force, and it was estimated that 10% live below the poverty line. Although in 1991 the per capita income was an estimated US$6,271.11, the wealth seems to be unevenly distributed (World Bank 1994).

Inflation stabilised at 5%, but the fiscal deficit remains, estimated to be US$230.37 million in 1991, as the vacuum left by the oil industry has not been adequately filled. The government granted subsidies to the 67 state owned businesses, which is the price
the country pays to remain in control of the natural resources. The import bill, due in part to imports for machinery, parts, and consumer goods, was high during the 1980’s, but its performance has improved.

In 1990, the government however, realised a current account surplus on operations (US$430 million), after years of deficit. The deficit decline was partially due to its selling of Petroleum and other industries that were owned by the government. Trinidad and Tobago is dissimilar to the remainder of the region, regarding the economic organisation, thus it is the most industrialised nation in the Caribbean. The main reason for GDP contraction is largely energy related, resulting in the decline in oil output per barrel due to exhaustion, and the relative decline in oil prices since the 1970s. Trinidad oil reserves have been falling, and production is currently at low levels. When prices per barrel declined, the value added of Petroleum’s contribution to the GDP also declined, and there have not been subsequent increases in other economic sectors. Petroleum’s value added declined by about 15%, in 1982, from US$2,004.11 million, to US$1,720.62 million, in 1992. Notwithstanding, significant gas reserves were recovered on Trinidad and Tobago, which could somewhat replaced the shortfall left by the oil industry.

The contribution of services to GDP in Trinidad and Tobago was 55.58% in 1992 (Charles 1994), and is among the lowest in the region. The contraction of the economy has been the longest economic decline this century in Trinidad’s economic history, at a time when other Caribbean nations, particularly the Leeward Islands are experiencing relative prosperity. The government had no alternative but to seek external assistance to solve its economic woes. The IMF was approached in 1988, for the first time by Trinidad and Tobago, and a 14-month IMF standby arrangement of about US$141 million was awarded, from January 1989 to April 1990. This represented an additional debt commitment, combined with the already existing outstanding obligation, of US$100 million. The years following the IMF’s assistance were difficult, but were not as difficult as on Jamaica during their IMF rescheduling
programme. Exchange rates doubled, placing considerable pressure on imports, local consumption, and outbound travel.

Trinidad has all the problems that plague developed countries, drug problems and related criminal activities, homelessness, poverty, high unemployment, crime, and a noticeable disparity between the rich and the poor. Despite the formerly successful oil trade, in Trinidad and Tobago, unemployment has always been a problem, hence in 1971, a good year for the oil industry, only 5% of the work force was employed in the oil industry.

Today, natural gas explorations are not expected to absorb any more labour than oil did, since energy production is capital intensive and a highly skilled operation, minimal employment is needed at the lower skilled levels. Highly skilled and educated emigrant labour from Western Industrial countries, sought and found employment opportunities in Trinidad during the zenith (1960s) of oil production. Caribbean nationals also emigrated to Trinidad, particularly from Anglophone Guyana and Grenada, seeking employment in the oil industry, or to benefit from the relative economic prosperity.

The problem of unemployment is largely due to the growing population, both naturally, and through illegal immigration, which has resulted in social disruptions. During the 1960s and 1970s, the illegal immigration of peoples from neighbouring islands has led to squatting, and the creation of ‘ghettos’ around the Capital, Port of Spain. Freedom of movement however, when people are fleeing poverty and destitution, although a human right, is a thorny issue for governments world wide.

The limitations of the host economies have to be taken in account, but the accommodation, though at first reluctant, has enriched the society. Trinidad and Tobago are two of the most ethnically diverse societies, and this diversity is a catalyst for creativity. The environment is another problem area. Trinidad is extremely
polluted, especially in the cities, a negative factor resulting from industrialisation. Trinidad as an industrial developing nation (discussed fully in chapter 9) has not escaped the social problems that follow development, where high unemployment and population growth rates fuel social discontent. Social and economic problems are less acute on Tobago, where tourism is the main industry, but difficulties in Trinidad could spill over to Tobago.

The Dutch Antilles' economies are *sui generis* services based, relying on tourism and offshore finances. They are small and extremely open, heavily dependent, as are all the islands, on external investments and international trade. Kuznets (1963:17) theorised that, 'heavy reliance on foreign markets is not a sound base for many industries', but in the long term tourism in the Caribbean has survived with almost total reliance on foreign markets. He continued to postulate that 'foreign trade is of greater weight in the economic activity of small nations than in that of larger units' (Kuznets 1963:18). It is therefore not surprising that, the Caribbean economies rely on foreign trade to effect their economic development.

In 1992, Aruba's GDP increased to US$610.7 million, with a population of 65,534, per capita income of US$9,346.5. In 1986, unemployment fell from 20%, to 6% in 1990, with only a 1.5% inflation rate, in 1991. Generally, the Dutch islands are relatively prosperous and enjoy high standards of living. During the late 1980s however, the economies contracted, and in 1991, Curaçao and the remaining Netherlands Antilles' GDP was US$1,104.5 million, with a population of 150,000, and a per capita income that was an estimated US$7,363. Saba and St. Eustatius are the smallest and least well-off, with very little to exploit, in contrast with St. Maarten's successful economy, which is based on tourism.

The political future of the islands is unknown, but of further cessation from The Hague is unlikely in the near future (Hoefte and Oostindie 1991), as the main benefit of a Dutch passport and full European Union citizenship is an advantage. Suriname,
one of the Guyanas of South America, ceded in 1975, followed by economic and political instability and the subsequent forfeiture of aid. Political unrest followed the bloodless coup d'état of 1990, where aid worth US$100 million a year had been suspended indefinitely. Aruba however, although politically it holds ‘status aparte’, is stable and its economy is buoyant, due to tourism development.

The economic situation throughout the Caribbean is similar, with high unemployment on the larger islands, and those reliant on agriculture and limited economic activity. Economic dependence on one or two economic sectors and a specialised export industry for economic growth is quite typical of small islands, and is in keeping with the economic development theories of small islands (Svennilson 1963). Cuba, the Dominican Republic, the French Caribbean and the Windward Islands, rely mainly on a narrow range of agricultural products. The remaining islands, (except Jamaica which relies on bauxite, and Trinidad and on energy related industries), depend almost entirely on the services sector (tourism and offshore finances. Virtually all of the nations have balance of payment deficits, and in some cases current account deficits and debt servicing difficulties. Inflation has been kept to minimum levels by adhering to prudent fiscal policies, and apparently fiscal stringency has been practised. The challenge that is evident surrounds how to derive maximum economic benefit from the utilisation of the limited natural resources.
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3.2 THE PRIMARY SECTOR: AGRONOMY AND MINING

The Caribbean in general, and the Leeward Islands in particular, have major constraints to their agriculture production, due mainly to institutional and structural problems. In 1992, the Windward Islands had significant shares of agriculture to GDP, as high as 25.4% of GDP in Dominica (see Table 3-6), 16.8% in St. Vincent and the Grendadines and 14.1% in St. Lucia. Except for St. Lucia, these islands also have the lowest GDPs in the region. Agricultural output needs to be increased in the Windward islands, possibly through crop diversification, to increase income from the sector. The Caribbean Agriculture Research Development Institute (CARDI) has been instrumental in addressing some of the institutional and structural problems, by introducing small-scale, labour-saving technologies, in order to improve product quality and production (CARDI 1989), but success has been limited.

Natural and economic constraints have circumvented some of CARDI's efforts, largely due to improper implementation, resistance of the older farmers, (who are the majority), and improper storing facilities. McElroy and de Albuquerque (1990:123) believed that, 'the interests of the region strongly favour...', the Caribbean becoming 'an independent and productive source of outputs, linkages, and livelihoods... because of the long-term benefits'. They continued to state that, 'the need for an integrated understanding of how small islands function, and the need for strategies compatible with more of a 'holistic' framework for reversing rural declines in the future'. The latter was pointed out in reference to, the high degree of urbanisation, and the widespread rural neglect in the region.

Agricultural organisation is problematic, and success is far from eminent. (Ford 1992:25) stated that, 'the problems faced by Caribbean agriculture lie in a complex web of poverty, ecological degradation and international dependence'. He continues to postulate that, 'there is no sustainable agriculture without sustainable development. The linkages between the agricultural sector and the rest of the economy are
paramount and to neglect them is to condemn agricultural development to failure’. Good sound macroeconomics policy is needed in the Caribbean, where the governments’ commitment to sustainable development is fully realised.

Ford calls for ‘Community Supported Agriculture’ (CSA), where farms and firms work in tandem with the community. It is a method of farming long established in some Western European countries, Japan for over 20 years, and since 1985 over 300 CSA schemes were established across the USA. CSA schemes provide local families with fresh, healthy food, grown locally, where consumers have greater identification with the land. This type of organisation promotes ‘equity and rural viability’, and provides the impetus for intersectorial linkages between tourism, and other economic sectors (Ford 1992:28).

3.3 THE SECONDARY SECTOR: INDUSTRY AND MANUFACTURING

Manufacturing and industrialisation never took off in the Caribbean, but evidences of this sector is apparent on all of the islands. In 1991, the Windward islands of the OECS had significant contributions of manufacturing to GDP, at 8.49% in St. Vincent and the Grenadines (the highest), and 7.33% in St. Lucia (see Table 3-7). The underlying qualification to effect manufacturing and industrialisation is the need for a relative abundance of natural resources. Resources that can be used as inputs in present manufacturing of commodities are minimal in the Caribbean. The most efficient use of natural, human, and capital resources would render the success of industry and economic development (Thirwall 1992, Todaro 1994). The Caribbean is poor in natural resources, but fairly rich in human resources, and where there is the need for capital, it can be imported.

The manufacturing industry is mostly run by US and UK Multinational Corporations (MNCs). It is the lack of natural resources that has retarded the growth of manufacturing in the region, but Jamaica and Trinidad are the exception, and light
manufacturing exists on all of the islands. Light manufacturing is predominantly agro-industries in the Windward Islands, and assembling where inputs are imported, due to the relaxation of the United States’ division of labour.

The future of manufacturing and industry in the Caribbean is uncertain, but there are at least three factors that might result in its sustainability. First, the advances in technology mean that the cost of communication will decline and the proximity to the US could result in production that could be done in the North, can instead be done in the Caribbean region.

Secondly, the high unemployment rates in the Windward Islands and the Greater Antilles signify that, the price of labour would be considerably cheaper than in the North. Thirdly, the continuation of political stability in the region will render it attractive to foreign investment. Agro-industries should remain as it sustains agriculture, and if better linkages can be found between these sectors and tourism, the regional tourism multipliers ceteris paribus, could be increased.

3.4 THE TERTIARY SECTOR: SERVICES - TOURISM AND OFFSHORE FINANCES

Tourism is a success in the Caribbean, judging in part from, the relatively large amounts of tourism receipts, and its contribution to GDP. In 1992, tourism as a percentage of GDP was highest on Antigua and Barbuda at 88.89% (see Table 3-8), 62.29% on Anguilla, and 52.94% in St. Lucia. Its success is ambivalent due to its failure to effect better economic growth, largely because of the region’s inability to extract maximum economic benefit.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ANGUILLA</td>
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<td>68.82</td>
<td>72.77</td>
<td>69.65</td>
<td>65.12</td>
<td>68.46</td>
<td>60.77</td>
<td>62.29</td>
</tr>
<tr>
<td>ANTIGUA &amp; BARBUDA</td>
<td>73.41</td>
<td>76.4</td>
<td>76.39</td>
<td>79.65</td>
<td>84.84</td>
<td>84.82</td>
<td>89.28</td>
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<td>88.89</td>
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<td>41.33</td>
<td>40.18</td>
<td>39.42</td>
<td>42.1</td>
<td>43.11</td>
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<td>BAHAMAS</td>
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<td>53.63</td>
<td>53.08</td>
<td>50.22</td>
<td>44.57</td>
<td>43.57</td>
<td>42.53</td>
<td>38.59</td>
<td>40.65</td>
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<td>31.78</td>
<td>34.29</td>
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<td>BERMUDA</td>
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<td>36.12</td>
<td>37.72</td>
<td>40.01</td>
<td>35.69</td>
<td>33.98</td>
<td>36.62</td>
<td>33.61</td>
<td>33.59</td>
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<tr>
<td>BRITISH VIRGIN IS</td>
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<td>84.33</td>
<td>102.54</td>
<td>113.29</td>
<td>106.15</td>
<td>96.59</td>
<td>95.59</td>
<td>76.63</td>
<td>ND</td>
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<tr>
<td>CAYMAN ISLANDS</td>
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<td>0.33</td>
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<td>0.51</td>
<td>0.57</td>
<td>0.72</td>
<td>0.77</td>
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<td>ND</td>
<td>ND</td>
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<td>CURACAO</td>
<td>7.69</td>
<td>7.64</td>
<td>9.67</td>
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<td>10.31</td>
<td>22.89</td>
<td>16.67</td>
<td>15.95</td>
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<td>11.66</td>
<td>22.89</td>
<td>18.25</td>
<td>20.06</td>
<td>21.03</td>
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<td>GRENADA</td>
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<td>35.53</td>
<td>37.92</td>
<td>35.46</td>
<td>21.74</td>
<td>21.04</td>
<td>23.99</td>
<td>25.37</td>
<td>24.96</td>
</tr>
<tr>
<td>MARTINIQUE</td>
<td>6.98</td>
<td>6.66</td>
<td>5.83</td>
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<td>8.06</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
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<td>ST. KITTS &amp; NEVIS</td>
<td>40.23</td>
<td>47.8</td>
<td>47.11</td>
<td>52.56</td>
<td>45.56</td>
<td>44.12</td>
<td>43.12</td>
<td>47.77</td>
<td>43.98</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>40.21</td>
<td>47.45</td>
<td>52.26</td>
<td>52.07</td>
<td>49.15</td>
<td>46.6</td>
<td>46.2</td>
<td>48.38</td>
<td>52.94</td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENADINES</td>
<td>22.05</td>
<td>24.61</td>
<td>27.8</td>
<td>29.89</td>
<td>39.16</td>
<td>34.93</td>
<td>34.2</td>
<td>30</td>
<td>16.63</td>
</tr>
<tr>
<td>TRINIDAD &amp; TOBAGO</td>
<td>2.54</td>
<td>2.63</td>
<td>1.78</td>
<td>1.69</td>
<td>2.12</td>
<td>2.05</td>
<td>1.92</td>
<td>1.97</td>
<td>2.03</td>
</tr>
<tr>
<td>TURKS &amp; CAICOS ISLANDS</td>
<td>25.94</td>
<td>34.66</td>
<td>56.96</td>
<td>48.68</td>
<td>59.43</td>
<td>60</td>
<td>51.92</td>
<td>63.66</td>
<td>ND</td>
</tr>
</tbody>
</table>

ND = NO DATA

Source: Caribbean Tourism Organisation (1978 to 1993)
Chapter 3: The Present Development

The high import content associated with the industry, translates into high leakages that reduce the tourism multipliers. Additionally, tax holidays, duty free importation, and repatriation of profits are granted by the governments in the Caribbean, a necessary evil if foreign investors are to be attracted. Wanhill (1986) commented that many countries feel pressured to offer incentives without evaluating the 'true' cost to the economy. He continues to explain that 'incentives serve merely to raise the total return to the investor' (Wanhill 1994:33). Jenkins had argued to the contrary, delineating that 'governments should use investment incentives as a selective, discretionary, tactical application of their general development strategies' (Jenkins 1982:94).

The thrust of the discussions promotes the use of incentives as, 'international tourism is not a highly differentiated product' (Jenkins 1986:93). Jenkins continues to say that, in order to attract foreign participation, which is integral to the protection of international hotel standards, to ensure consumer satisfaction and 'value for money', incentives are needed. The implications are that domestic run hotels are incapable of meeting international standards, both in facility and consumer satisfaction, a point that Sandals, a regional chain, among others, has proven fallacious. Wanhill counter argues and points out the risk factor of high operating leverage concerning capital investment. He postulates by use of hypothesis testing that, a capital grant 'by directly reducing fixed costs, is superior to other incentives in reducing the inherent risk in the project' (Wanhill 1994:36). Capital grants, he discusses, are desirable to the investor as they are a one time transaction and risk free, and are also favourable to governments as they are relatively easier to manage than incentives. It is wiser from an economic standpoint that Caribbean governments administer grants, because other incentives such as repatriation of profits and tax holidays are very expensive to the local economies.
### TABLE 3-9

CUBA TOURISM VITAL STATISTICS
FOR SELECTED YEARS
FROM 1990 TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$ million)</th>
<th>AVERAGE SPENDING PER VISIT us dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>340,300</td>
<td>243.4</td>
<td>715.25</td>
</tr>
<tr>
<td>1992</td>
<td>460,600</td>
<td>557.0</td>
<td>1,231.00</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Further, the imbalance of foreign investment in a particular industry is as Demas (1965) noted, a distortion of development. The large foreign content of the management and ownership of Caribbean hotels, as high as 90% in Antigua and Barbuda (Weaver 1988), a result in part from the openness of the economies, is but one example. A large foreign presence traditionally does little to encourage local linkages, initiative, entrepreneurship, the mobilisation of savings, whereas it reduces national control over economic decision-making, strategic planning and development. One successful tenable partnership between public and private sector tourism ventures, and other sectors of the economy has been evident on Nevis. The Four Season Resort has been efficacious in forming successful intersectoral linkages between the various sectors of the Nevis economy and is a significant employer of the labour force. Tourism, despite its problems, has been responsible singlehandedly for bringing about the situation where some islands in the region has been classed as a middle income. Tourism has been a catalyst for economic development, and it is categorically the only industry that contributes vast amounts of foreign exchange, so needed for the high import bills.

Tourism development was, before the revolution, a phenomenon in Cuba, when the island hosted vast numbers of tourists who enjoyed the best of tourism. Arrivals were curbed substantially after 1959, when the American government placed an embargo on trade with Cuba, and when Europe introduced a boycott. Subsequently, visitors to Cuba have increased, that by 1980 there were 8,545 visitors originating from Europe⁴. A positive trend developed, so that by 1988, 112,803 visitors arrived from Europe, occupying over 6,000 rooms.

The future of Cuba is unknown, but with the dismantling of the Soviet Union and the eastern communist bloc in 1989, the main area of support for the Castro regime, has diminished. Thus, Cuba appears to be approaching a market led economy. The

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³ A US embargo remains on Cuba.
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sustainability of the Cuban socialist economy without Eastern aid and Western involvement is debatable. No doubt the role of tourism will be an important one, as has already been identified by the enormous increases of 1320% over the eight-year period of 1980 to 1988, from Europe alone, with an overall arrival in 1992, of 460,600 visitors. Cuba is one of the few islands in the Caribbean which depends on the main originating market from Europe, hence the government aggressively promotes Cuba in Germany and the Netherlands. The importance of tourism as a foreign currency earner (see Table 3-9), based on the amount of tourism revenue, is an underlying reason for the government’s encouragement of the industry.

Tourism, *en masse*, especially of those from western, capitalist origins would ordinarily be rejected as a form of corruption of the social good of the ‘people’ by a communist (socialist) government. However, the economic reality is such that, in a country that relies on external sources for inputs, for example, oil to sustain its industries and the economy, it has with the present political world order to accommodate that which it reviles, capitalism and consumerism ventures. Tourism brings the much needed ‘hard’ currency that enables Cuba to survive. The massive potential of the economy to be improved due to this sector, is likely to occur when the government’s policy is repealed, and the economy becomes more open.

Cuba’s Revolution and it’s political ideologies, and its political influence on the region have been the topic of many discussions. The intricate details however, that surround Cuba’s economy is beyond the scope of this treatise. Notwithstanding, the social revolution of 1959 predisposed Cuba’s economy to one whereby agriculture would thrive. Therefore, it is possible that without that type of revolution, these crops (sugar and tobacco) would have been marginalised. The economic development process however, (based on the 1950s trend) might have rendered Cuba one of the most economically viable nations in the entire Caribbean. Times are changing, and with the former Soviet Union gone as its economic ‘prop’, Cuba has taken some
steps, albeit tentatively, to enter into the economic main stream, a fortiori, the economy.

Cuba has made efforts regarding tourism, by becoming a member of the Caribbean Tourism Organisation (CTO), and through promotional efforts, evidenced by its participation in international tourism marketing. In addition, its recent membership in Caricom means that it can participate in regional trade. As Cuba becomes more open, with more external involvement, economic growth will increase, and with it economic development.

Tourism's history in Jamaica is different from Cuba, as during the earlier part of the 1970s when Cuba was concentrating on sugar production, Jamaica's tourism sector was growing. Tourism demand in Jamaica was robust during the 1960s, when arrivals in 1961 were 224,492 visitors, realising revenues of US$24 million, rendering the destination the second most popular in the Commonwealth Caribbean after the Bahamas. Total arrivals increased to 258,460 in 1968, with revenues of US$4.78 million, representing a growth of about 3.8% for the decade (see Table 3-10). Arrivals which should have kept up the pace with the Bahamas during the 1970s, started falling off, increasing at a declining rate, to 302,776 in 1970, then declining in 1976 to 264,921, partially as a result of the 1973-8 oil crisis. The figures improved to 381,818 visitors in 1978, and by 1979 arrivals had increased somewhat to 426,540, only to be reduced again in 1980 by 7%, to 395,340 visitors, with revenues of US$241.7 million.

The following years brought a steady increase in the total arrivals figure to 738,827 in 1988, declining in 1989 to 648,873 visitors. As a result of renewed commitment, successful promotion campaigns, including creative television advertisements, arrivals have resurfaced. In 1990, total tourist arrivals increased to 840,777, of which 121,048 visitors were from Europe, a 14.4% market share, with the UK alone contributing 82,429 to the total, or 9.8% market share.

112
### TABLE 3-10  JAMAICA
TOURISM VITAL STATISTICS
FOR SELECTED YEARS
FROM 1960s TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT us dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>224,492</td>
<td>24.0</td>
<td>106.91</td>
</tr>
<tr>
<td>1968</td>
<td>258,460</td>
<td>478.0</td>
<td>184.94</td>
</tr>
<tr>
<td>1979</td>
<td>426,540</td>
<td>194.3</td>
<td>455.53</td>
</tr>
<tr>
<td>1980</td>
<td>395,340</td>
<td>241.7</td>
<td>611.37</td>
</tr>
<tr>
<td>1990</td>
<td>840,777</td>
<td>740.0</td>
<td>880.14</td>
</tr>
<tr>
<td>1992</td>
<td>909,000</td>
<td>850.0</td>
<td>935.09</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
In 1990, increases in arrivals resulted in revenues surging to an all-time high, to US$740 million, however, on a per capita basis, about US$879.9 per person was spent, quite similar to mass-market destinations. In 1991 and 1992, total arrivals were about 844,600 and 909,000 respectively, representing an increase of 1% and 7.6%. Tourism spending per capita was approximately US$904.57 and US$935.09 for the same period. Total spending by the European market has been growing at a steady rate, and in 1991, the increase from Europe was about 26.6% from the previous year. Conversely, the US market (the main generator) has peaked, showing an increase of only 1.5% for the same period, a trend that is apparent throughout the region.

Tourism in the Dominican Republic has undoubtedly increased tremendously over the last decade, and it is the country's largest foreign exchange earner. Its annual receipts are about US$500 million. Its hotel room capacity is the largest in the Caribbean with 25,000 rooms in 1992, including a 350-room Club Mediterranée. Critiques of the hotel building projects in the region have stated that the industry is 'over built'. Notwithstanding, in 1988, there were 1,116,364 visitors, which explains the need for the existing room capacity. The 1988 arrivals figure represented an increase of 6.79%, from the 1986 figure, (747,089 visitors). The rising trend continued, increasing by 9.1% from 1989 to 1990 (1,533,217 visitors).

European arrivals accounted for only an estimated 4.8% of total arrivals, mostly from Spain, followed by Italy and Germany. Most of the hotels are foreign owned, by North Americans, Italians and Germans, a fact that is quite typical of the Caribbean. Although the arrivals figures are high, when analysed on a per capita spending basis, in 1991, the per capita spending was approximately US$871.24 (see Table 3-11). The per capita spending figures are similar to other mature destinations (the Bahamas and Jamaica) however, and the industry's economic performance can be described as moderate, at best. The relatively lower per capita spending, when one considers that arrivals are high, may signify that the product might be priced relatively cheaply. It
could be that the government needs to readdress the industry, by analysing tourism revenues, and could seek ways to improve its economic performance. Huge numbers and low spending serve only to put pressure on the islands' infrastructure and public services, while eroding the fragile ecosystems, without maximum economic gains.

TABLE 3-11 DOMINICAN REPUBLIC
TOURISM VITAL STATISTICS
FOR SELECTED YEARS
FROM 1979 TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (US$million)</th>
<th>AVERAGE SPENDING PER VISIT US dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>285573</td>
<td>130.8</td>
<td>458.03</td>
</tr>
<tr>
<td>1980</td>
<td>301070</td>
<td>167.9</td>
<td>557.68</td>
</tr>
<tr>
<td>1990</td>
<td>1533217</td>
<td>899.5</td>
<td>586.67</td>
</tr>
<tr>
<td>1992</td>
<td>1523800</td>
<td>1,054.8</td>
<td>692.22</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Tourism public sector operations in the Dominican Republic are decentralised, operated by a non-profit group called, The Tourism Promotion Council. It is a forward thinking approach, as it better serves the private sector interests, where development and implementation are not circumvented by unnecessary dogma. This type of organisation lends itself to efficiency and less bureaucracy, operating in an accountable manner to the government, leaving the government to get on with maintaining the economy. This type of organisation however, may obtain advise from 'outside' advisors, who may not view tourism as a tool for the nation’s economic development. Whereas, governments who take an active role in the 'governing' of the industry may operate in a manner, whereby tourism is viewed as the main avenue to foster development. Although tourism is the Dominican Republic’s main source of foreign revenue, its ability to alleviate the widespread poverty in the Dominican Republic has been limited.

Why does an industry dominate an economy that seemingly imparts net economic and social disadvantages, and very little overall economic development. 'Trade receipts however, failed singularly to generate economic development, but instead, have further institutionalized the sources of underdevelopment' (Perez 1973:474): could be considered a relevant discussion pertaining to the Dominican economy. It is fair to point out nonetheless, that the local social structure of the society needs to be analysed, as the country’s inability to extract high levels of economic benefit from tourism, would not solely be responsible for the country’s persistent underdevelopment. A rigid social hierarchy might foster, ‘outside small national elites’ (Perez 1973:476), becoming prosperous at the cost of the vast majority, who gain little economic benefit from any economic activity.

The large foreign presence (Nanton 1983, Potter 1983), in the Dominican Republic, as is the case elsewhere in the region, has possibly undermined development, as an estimated 70% of all tourism revenues are repatriated (Potter and Dann 1994). Where multinational corporations (MNCs) exist, they usually operate in absence of
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regulation, *prima facie*, the international hotel chains in the Caribbean (Dunning and McQueen 1982). The Caribbean nations are too vulnerable economically (Briguglio 1993) to continue to view tourism in a *laissez-faire* manner (Potter 1993), in light of the fact that their livelihood depends on that industry.

The tourism industry should be monitored, and where appropriate, regulated (Hope 1986). CTO (1994) suggests that self-regulation is preferable to imposed regulation, in reference to the large number of high all-inclusive hotels in the region and their potential for tax avoidance. The main factor in capitalist economies is the opportunity for profit maximisation as the optimum goal, thus societies’ and indeed the economies’ interests, are usually not served best during that process. Sustainable development would follow the viable marrying of economic, social and environmental issues where industrial development is concerned (Miskesell 1992). The evidence to prove the feasibility of sustainable development has been overwhelming over the last 50 years, where legislation and regulation have not been in place.

Long-term (more than 20 years), comprehensive economic planning (Hudson 1989), and the way tourism fits into that plan needs to be considered in the Dominican Republic, and the Caribbean at large (Hope 1986, Potter 1989, Wilkinson 1987, 1989). The perspicacity to effect change, and to implement policies that might be an anathema to the trend of tourism development, takes ‘iron’ will and determination, which too few governments appear to summon. Sustainable development should be the goal of any government. MNCs traditionally take a short-term view, where, ‘gains sought by capital markets are often at odds with long-term sustainability of tourism environments’ (Wanhill 1994:39). Hence, it is up to government to regulate development, where preference is given to sustainable projects.
### TABLE 3-12 CAYMAN ISLANDS
TOURISM VITAL STATISTICS
FOR SELECTED YEARS
FROM 1960s TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>14,496</td>
<td>1.59</td>
<td>109.69</td>
</tr>
<tr>
<td>1979</td>
<td>100,587</td>
<td>36.20</td>
<td>359.89</td>
</tr>
<tr>
<td>1980</td>
<td>120,241</td>
<td>44.60</td>
<td>370.92</td>
</tr>
<tr>
<td>1990</td>
<td>253,200</td>
<td>235.70</td>
<td>930.88</td>
</tr>
<tr>
<td>1992</td>
<td>241,800</td>
<td>229.60</td>
<td>949.55</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)  
Bryden 1973
A few islands in the region seem to have well organised and maintained tourism sectors, one of which is the Cayman Islands. The Caymans’ tourism industry is one of the region’s largest, with arrivals of approximately 14,496 in 1968, with receipts totalling US$1.59 million (see Table 3-12). Its performance increased steadily over the last quarter of a century, becoming the largest contributor to GDP. Its contribution represented a staggering value added of 70% of GDP, and it is responsible for 75% of the foreign currency earnings. The Cayman Islands are an upmarket destination with all the amenities, including world renowned diving, therefore spending per capita is very high. During the decade of the 1970s, visitor arrivals increased from 22,891 in 1970 to 120,241 by 1980 with an increase of 525% for the decade. Total arrivals continued its upward trend during the 1980s to 253,200 in 1990, but by a decreasing rate, representing a decade increase of only 211%. In 1990, expenditure was an estimated US$1,288.93 per capita. In 1991, arrivals were 237,400, from which 12,404 originated from Europe, or 5.2% of total arrivals. In 1992, total arrivals were 241,800.

The main demand from Europe originates from the United Kingdom, but the overall main market is the United States. As the statistics indicate, arrivals have only risen moderately during the 1980s, which questions the ability of the islands to attract a larger share increase from the United States (CTO 1990). The Europe market seems to have potential, and tourist arrivals from Europe have increased from 1980 to 1990, by 234%.

Similar to Jamaica, the Bahamas is a mature tourism destination, and in general the services sector (tourism and offshore finances) are the main economic activities and foreign exchange earners. Tourism was developed as early as the late nineteen hundreds, as a refuge for North Americans from the harsh winters (Holder 1988), compounded with its proximity to the United States. But it was not until the arrival of mass tourism during the 1950s that tourism in the Bahamas became firmly established. In 1961 there were 336,211 visitors, which increased to 891,480 in
1970 (see Table 3-13), which made the Bahamas the most visited islands in the Caribbean. Total earnings in 1968 were approximately US$141 million, at current exchange rates. During the 1960s, the United States represented 87.8% of arrivals, but by 1992 this share had declined to 80%.

### TABLE 3-13 THE BAHAMAS TOURISM VITAL STATISTICS FOR SELECTED YEARS FROM 1960s TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT us dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>891,480</td>
<td>141.00</td>
<td>158.16</td>
</tr>
<tr>
<td>1979</td>
<td>1,129,430</td>
<td>561.70</td>
<td>497.33</td>
</tr>
<tr>
<td>1980</td>
<td>1,181,260</td>
<td>595.50</td>
<td>504.12</td>
</tr>
<tr>
<td>1990</td>
<td>1,561,600</td>
<td>1,332.90</td>
<td>853.55</td>
</tr>
<tr>
<td>1992</td>
<td>1,398,900</td>
<td>1,243.50</td>
<td>888.91</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993) 
Bryden 1973
Overall arrivals have increased by about 133% for the decade of the 1970s, surpassed one million visitors in 1980 (1,181,260), and in 1990, arrivals increased further to 1.56 million. In 1992, total arrivals declined by 8.3% to 1.43 million, declining further by 2.8% to 1.4 million, due in part to high prices and violent crime. This resulted in tourism earnings losses of US$200 million, and a loss of US$50 million government revenue (FT 1993). The problems surrounding the decline in arrivals must be addressed with immediate urgency, since 50% of the labour force is employed in tourism and it constitutes 72% value added of GDP.

Tourism spending per capita in the Bahamas (US$854.49), in 1990 was similar to Jamaica and the Dominican Republic, as the tourism is highly developed. These destinations have a high volume of tourism demand, but relatively lower spending, a direct result, undoubtedly, of selling the destination at lower prices to increase demand. In the region, there is the constant monitoring of the number of arrivals, without taking into account the carrying capacity of the destinations. Additionally, the impact on the economy, the environment and society (Bryden 1973, Matheison and Wall 1992), of these large number need assessing.

Freeport, as the name suggests, is a port where ships pass and are loaded without paying harbour fees, including the tax exemption of all industries, from 1955, for 99 years, of all forms of taxation, including income tax and customs duties. The Bahamas are expanding as a registration centre, a port for the registration of 'flags of convenience' for sailing vessels.

Off-shore finances have had problems with drug trafficking money laundering, a legacy of the 1980s. Economic pressures from the United States have resulted in curtailing the, and a tax information exchange treaty has been signed with the US. Nonetheless, the problems have undermined the confidentiality of offshore accounts.
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The Turks and Caicos' tourism industry is in its infancy, but it is growing and has potential. The government has sought to encourage the growth of the tourism industry by building in 1984 an international airport, and has accommodated a Club Méditerrannée (Club Med). Total arrivals are low compared with other tourist destinations in the region, 41,900 in 1990, with per capita expenditure of a moderate US$739.86. In 1991, total arrivals increased to 54,600, of which 4,428, less than 10%, originated in Europe. The accommodation capacity is limited, and in 1989, there were only 1026 hotel rooms, but construction is expected to increase the capacity to 2,500 rooms, by 1995. The improvement of this industry should increase arrivals, whereby revenues should increase the level of economic development, as has been the case in the rest of the region.

Bermuda's off-shore business sector is a significant contributor of value added, about 20% of GDP, and 35% of foreign earnings, although growth in the financial sector has slowed in recent years. To boost the industry, emphasis is being placed on diversification of services, specifically to attract more corporate and insurance business. Bermuda operates the fifth largest flag of convenience shipping fleet in the world, and by the end of 1990, there were 102 commercial ships and 303 yachts registered under Bermuda's flag. This is a good source of revenue for the government, but some money needs to be ploughed back into the economy, especially where environmental degradation has occurred.

In the past, the anchorage of ships and has damaged coral reefs. Additionally, through inappropriate sewerage and refuse disposal, the pollution caused by ships has been incalculable. It is in the interest of the government that due care is taken to preserve the reefs and to prevent pollution, as the biodiversity that ensures the survival of sea-life, including fish for consumption, will be lost indefinitely (Beller et al 1987, Bloomstein 1985, McElroy et al 1987, Wilkinson 1989).
Tourism is the main economic activity in Bermuda, representing 70% of employment, 55% of GDP, and 60% of foreign earnings. Most visitors arrive from the United States, representing 85% of the total, whereas the European market represented only about 5%. The cruise industry is extremely successful, mostly because of the islands’ proximity to the US, thus in 1992, 121 ships called in with 112,551 passengers. Cruise ship visitors, along with 'staying’ passengers, have been deliberately restricted, to minimise the visitor/host ratio, in order to maintain the islands’ upmarket image. During the 1970s, Bermuda's arrivals increased overall for the decade by only 62%, compared with 137% in Barbados, and 33% in the Bahamas, over the same decade.

In 1980, there were 491,640 visitors on Bermuda, of which 5.1% came from Europe, and in 1990, there was a slight increase in EU arrivals, which represented 5.75% of the total 432,706. In 1990, tourism spending per capita amounted to US$1,111.4, similar to the Cayman Islands (see Table 3-14). In 1992, visitor arrivals declined by 3.1%, to 373,500, but in general overall visitors have declined. Some reasons for the decline demand could be; (1) the deliberate policy of the government to restrict arrivals, could maximise revenue, while minimising environmental and other costs, and; (2) the overall trend in decline from the US market, since the 1989 to 1993 US recession is a situation quite similar to the rest of the region. The islands that depend primarily on the US market are the most severely affected, and recent figures have shown that the trend has not abated.

The BVI tourism industry is considered the catalyst for economic development, similar to the region. Tourism contributed about 25% to GDP, but has had an irregular pattern of growth. The industry was developed during the 1960's, and by the year 1968, the BVI received 22,178 visitors, over 7,000 more than the Cayman islands, and over 20,000 more than the Turks and Caicos islands. However, it trailed behind other destinations in the area, eg. Antigua's whose total for that same year was 55,838.
### TABLE 3-14

**BERMUDA TOURISM VITAL STATISTICS FOR SELECTED YEARS FROM 1979 TO 1992**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>458,781</td>
<td>240.10</td>
<td>523.34</td>
</tr>
<tr>
<td>1980</td>
<td>491,640</td>
<td>280.00</td>
<td>569.52</td>
</tr>
<tr>
<td>1990</td>
<td>432,700</td>
<td>490.10</td>
<td>1,132.66</td>
</tr>
<tr>
<td>1992</td>
<td>373,500</td>
<td>443.00</td>
<td>1,186.08</td>
</tr>
</tbody>
</table>

*Source: Caribbean Tourism Organisation (1961 to 1993)*
In 1970, 33,489 visitors arrived; in 1978, total arrivals were 105,514 arrived; and by 1980 arrivals increased to an estimated 120,000, which represented an increase of 244% for the decade. During the following decade, the increase has been much slower, *ipsos factos* in 1988 there were 176,000 arrivals, only a 46.6% increase from 1980. Total arrivals decreased from 1988, declining in 1990 to 160,000 visitors, a decade increase of only about 33.3%. In 1990, tourism spending per capita was an estimated US$820.5 (see Table 3-15), perhaps because most people stayed on yachts rather than hotel accommodation.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>33,489</td>
<td>3.86</td>
<td>1,152.62</td>
</tr>
<tr>
<td>1979</td>
<td>115,091</td>
<td>42.30</td>
<td>367.54</td>
</tr>
<tr>
<td>1980</td>
<td>120,000</td>
<td>53.80</td>
<td>448.33</td>
</tr>
<tr>
<td>1990</td>
<td>160,000</td>
<td>132.10</td>
<td>825.63</td>
</tr>
<tr>
<td>1992</td>
<td>136,400</td>
<td>109.40</td>
<td>802.05</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Chapter 3: The Present Development

The possibility exists that yachts and boat groups spending might impact the local economy favourably, as they tend to purchase food locally. However, chartering of boats/yachts in the BVI increased steadily during the 1980s from 271 to 388, by 1990. In 1991, total arrivals continued on a downward trend to 136,000, which represented a decrease of 14.8% from 1990, when total tourism expenditure was estimated to be US$109.4 million, or per capita spending of US$804.41. In 1990, 3,500 visitors originated from Europe, or 8.4% of total arrivals, but in 1991 that number also declined to 11,800, a 12.6% reduction from the previous year, leaving the overall market share intact.

Tourism has remained uncommercialised, peaceful, and upmarket, complemented by extensive services and a support sector that evolves around visitors’ enthusiasm for yachting and watersport. The vast majority of visitors who come from Europe arrive from the United Kingdom, but the overall main market is the US, which could be the explanation for the reduction in arrivals. The BVI is home to the largest fleet of yachts in the world, and the spring regatta held in the Sir Francis Drake channel attracts hordes of sailing enthusiasts from all over the world. In 1980, there were 38,104 cruise passenger arrivals, and 71,637 and 95,070 in 1989 and 1990 respectively. On The BVI, accommodation capacity is limited, in 1990, there were only 1,121 rooms, 603 of which are to be found on Tortola, 375 on Virgin Gorda and the remainder on the other islands.

Tourism, in Antigua and Barbuda in 1960s, spurred economic growth and increased the level of development, while raising the standard of living. Tourism at first, in the 1950’s, competed with the agricultural sector for labour, as wages were higher in the tourism industry, hence contract workers were imported from St. Lucia and St. Vincent to reap the sugar cane. Ironically emigrant labour is also employed today in the tourism industry, because of labour shortages. In 1991, total agricultural employment declined from about 8,000 in 1960 to 2,100 employees. Agriculture was
practically ignored during the 1970s, and especially during the 1980's, as the government placed all of its resources in developing the tourism superstructure.

Tourism arrivals in the 1960's increased rapidly in Antigua and Barbuda, to 16,000 in 1961, to 59,174 in 1967, which represented approximately a 360% increase for the decade, and receipts increased by 15.6% to US$7.85 million, at current exchange rates. The decade of the 1970s had comparatively lower increases in arrivals, with an overall decade increase from 1970 to 1980 of 57%, similar to Bermuda. These marginal increases compared unfavourably with Barbados' 137%, the BVI's 244%, and the Cayman islands' 425%. The number of arrivals might have increased at a relatively low rate, because of the relatively low promotional efforts of the National Government Tourist Office (NGTO), *ipso facto* the lack of awareness of the island as a tourism destination by the international market.

The Antiguan and Barbudan economy is based mainly on the service sector, offshore financial sector which is relatively small but growing, but largely the service sector is tourism related. The tourism sector is the largest in the Leeward and Windward islands, second in the English speaking Eastern Caribbean after Barbados. Tourism accounted for a value added of 81.6% of GDP in 1991, a steady upward trend from 78.23% in 1977, indicating an overdependence on the industry. Total arrivals during 1980s, increased significantly compared with the previous decade, from 98,000 in 1980, to 206,000 in 1990, a 210% decade increase.

In 1992, total arrivals in Antigua and Barbuda, increased to 217,900, an increased of 8.2% from 1991, at a time when Bermuda’s arrivals contracted by 3.1%, and Barbados contracted by 2.2%. In 1990, tourism spending per capita was an estimated US$1,214.4, and in 1992, it was US$1,509.87 (see Table 3-16), which compares favourably with Bermuda, and the Caymans Islands, other upmarket destinations. Tourism is projected to expand, with increases in promotional efforts and the expansion of the tourism superstructure.
### TABLE 3-16 ANTIGUA AND BARBUDA TOURISM VITAL STATISTICS FOR SELECTED YEARS FROM 1960s TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT us dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>16,000</td>
<td>7.20</td>
<td>450.00</td>
</tr>
<tr>
<td>1968</td>
<td>55,838</td>
<td>21.20</td>
<td>379.67</td>
</tr>
<tr>
<td>1979</td>
<td>99,536</td>
<td>36.30</td>
<td>364.69</td>
</tr>
<tr>
<td>1980</td>
<td>100,000</td>
<td>42.00</td>
<td>420.00</td>
</tr>
<tr>
<td>1990</td>
<td>250,700</td>
<td>298.20</td>
<td>1,189.47</td>
</tr>
<tr>
<td>1992</td>
<td>217,900</td>
<td>329.00</td>
<td>1,509.87</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
Chapter 3: The Present Development

The hotel room capacity in Antigua and Barbuda is expected to increase to 2,752, which would double the capacity by the year 2000. Similar to the Dominican Republic, Antigua must consider the islands’ need for an expanded tourism superstructure. The high leakage content, and high degree of foreign ownership signify that, the economy could be considered, not only to be extremely fragile (Briguglio 1993), but that tourism’s economic benefits \textit{ceteris paribus} for a small, resource poor, nation need to be maximised. The optimum carrying capacity must be calculated before the industry is expanded further. Direct tourism contributes a value added of 33\% to GDP, and including the indirect and induced effects, the total contribution is about 70\%. European arrivals accounted for about 23\% of total arrivals, representing increases of 235.25\%, from 1980 to 1991. European arrivals originated mostly from the UK, followed by Germany which represent the most significant new arrival.

The off-shore financial sector is a relatively recent development on Antigua, when in 1982 legislation was passed by the representatives to allow free enterprise and foreign investment. The government’s objective was the creation of an off-shore financial sector, by offering full tax haven facilities to international business companies, trusts, banks and insurance companies. Taxes are minimum, as there are no capital gains tax, personal income tax, and no restriction on foreign ownership of businesses. Approved industries fostering job creation are encouraged, are exempt from customs duty on supplies, and are protected from import restrictions, for a limited time. The total free market-led economy is conducive to foreign investment, \textit{ipso facto} international trade, but the price of incentives might be counter-productive to economic growth.

The service industry has advanced significantly in the Leeward islands since the 1970s, but its proportion to GDP has remained constant, at 78.5\% value added to GDP, from 1977 to 1991. St. Kitts and Nevis’ share of services increased by 13.03\% for the same period, and by 67.79\% in 1991, mainly due to increased activities in the
tourism, small scale banking, and offshore financial sectors. Anguilla embraced services entirely, mainly tourism, a small banking sector, and offshore finances, from 1992, which during the 1980s, virtually eliminated the previous unemployment rate of 26%. Tourism is the major contributor to the services sector, both directly and indirectly.

In 1950s, tourism in the Leeward Islands, other than Antigua, was undeveloped, and only St. Kitts and Nevis had any semblance of tourism development. Tourism in St. Kitts and Nevis was disorganised before the 1960s, and arrivals were below 5,000 visitors a year. By 1962 however, arrivals increased to 6,708, increasing steadily to 9,797 in 1968, with total revenues of US$1.07 million, at current exchange rates. During the 1970s, arrivals increased rapidly from 13,472 in 1970, to 14,322 in 1980, representing a 6.31% increase for the decade. The following decade was just as successful with arrivals increasing significantly to about 75,700, earning revenues of US$63.4 million, or tourism spending per capita of US$837.52 (see Table 3-17). In 1992, total arrivals were approximately 88,000, and per capita spending was approximately US$763.64. The main generating market is North America (the US and Canada), whereas Europe accounts for only an estimated 3% of the market, but more potential exists for future demand from that area. Government’s keen interest in expanding the industry, as is evident by the expansion of the industry’s superstructure, with the allotment of funds of US$63.4 million, to improve the port facilities and flight connections.

Presently, Anguilla’s tourism industry accounts for about 75% value added of GDP, with remarkable growth rates overall from 1970, when tourism arrivals were approximately only 1,000. In 1980, arrivals increased to 9,000, and the following decade, there were dramatic increases in arrivals to 30,600, in 1990, with revenues of US$29.3 million and per capita spending of US$939.10. Total arrival decreased by 2.6% to 30,400 in 1992, possibly due to the declining trend from the US, with tourism per capita spending of approximately US$1,157.89 (see Table 3-18).
### TABLE 3-17  
ST. KITTS AND NEVIS  
TOURISM VITAL STATISTICS  
FOR SELECTED YEARS  
FROM 1960s TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>5,554</td>
<td>0.50</td>
<td>90</td>
</tr>
<tr>
<td>1968</td>
<td>9,797</td>
<td>2.90</td>
<td>296</td>
</tr>
<tr>
<td>1980</td>
<td>32,585</td>
<td>13.40</td>
<td>411</td>
</tr>
<tr>
<td>1990</td>
<td>75,700</td>
<td>57.70</td>
<td>762</td>
</tr>
<tr>
<td>1992</td>
<td>88,300</td>
<td>67.20</td>
<td>761</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)  
Bryden 1973
### Table 3-18: Anguilla Tourism Vital Statistics for Selected Years from 1979 to 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (US$million)</th>
<th>AVERAGE SPENDING PER VISIT (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>6,181</td>
<td>1.00</td>
<td>162</td>
</tr>
<tr>
<td>1980</td>
<td>9,000</td>
<td>1.30</td>
<td>144</td>
</tr>
<tr>
<td>1990</td>
<td>31,200</td>
<td>34.60</td>
<td>1109</td>
</tr>
<tr>
<td>1992</td>
<td>30,400</td>
<td>35.20</td>
<td>1158</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)

### Table 3-19: Montserrat Tourism Vital Statistics for Selected Years from 1960s to 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (US$million)</th>
<th>AVERAGE SPENDING PER VISIT (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>2,000</td>
<td>0.20</td>
<td>100</td>
</tr>
<tr>
<td>1968</td>
<td>6,925</td>
<td>2.60</td>
<td>375</td>
</tr>
<tr>
<td>1979</td>
<td>13,060</td>
<td>3.70</td>
<td>283</td>
</tr>
<tr>
<td>1980</td>
<td>15,532</td>
<td>4.30</td>
<td>277</td>
</tr>
<tr>
<td>1990</td>
<td>18,700</td>
<td>7.20</td>
<td>385</td>
</tr>
<tr>
<td>1992</td>
<td>23,200</td>
<td>13.60</td>
<td>586</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
Chapter 3: The Present Development

Anguilla depends mostly on US demand, and in 1991, 10.5% of demand came from the EU. Massive construction has taken place since 1989, after the destruction of hurricane Hugo, and in 1990, a new award winning room hotel was built, which increased hotel room capacity to 741 rooms.

Montserrat has the most remote form of tourism in the region, and has been successful in maintaining this image, where quiet traditional Caribbean lifestyle appeals to the older and retired traveller. Accommodation is mostly small locally owned hotels, which in 1988, totalled 279 rooms. Hotels are situated alongside retirement homes (a tourism style which has been commended, for its contribution to tourism's stability), which possibly render long term economic and social benefits (McElroy and de Albuquerque 1992a). The government is cautious regarding rapid increases in room capacity, however plans are on the way, to built a major resort complex.

Tourist arrivals in the 1950s were nominal, but arrivals increased significantly in the 1960's, when by 1962, an estimated 2,200 visitors arrived on the island. In 1968, total arrivals increased to 6,925, (earning revenues of about US$1 million), to 9,503 visitors, in 1970, and in 1992, to about 23,200, when tourism spending per capita spending was US$586.21 (see Table 3-19). Tourism spending per capita spending is lower on Montserrat, as most tourists reside in retirement homes, where expenditure directly impacts the local economy. Tourism has growth potential in the leeward islands, but needs careful planning and policy implementation along with sound general and environmental management (Bryden 1973, Matheison and Wall 1990).

The services industry, mainly tourism, employs 31.7% of the labour force in Martinique, and in general, it is the main economic activity of the French Caribbean. In 1990, 65% of its arrivals were from the French mainland. Guadeloupe received about 331,107 visitors in 1990 from 292,600 in 1987, occupying 6,066 guest rooms, including a Club Méditerranée. In 1990, total revenues were US$230.7 million, and
tourism spending per capita was US$696.77 (see Table 3-20). Guadeloupe is considered 'down-market' however, especially when compared with Martinique. Martinique has several five-star hotels, 60 smaller hotels, a Club Méditerranée and holiday cottages with a total room capacity of 3,600. Martinique had steady increases in arrivals of 114.54% from 1988 to 1992, when arrivals increased from about 280,000 to 320,700 respectively. In 1990, a total of about 281,500 visitors arrived, where earnings were about US$240 million, which represented US$852.58 tourism spending per capita.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT US DOLLARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>458,781</td>
<td>143.80</td>
<td>313.44</td>
</tr>
<tr>
<td>1980</td>
<td>491,640</td>
<td>141.10</td>
<td>287.00</td>
</tr>
<tr>
<td>1990</td>
<td>569,900</td>
<td>437.10</td>
<td>766.98</td>
</tr>
<tr>
<td>1992</td>
<td>661,200</td>
<td>550.60</td>
<td>832.73</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
St. Martin and St. Barts have well-developed tourism products, based on duty-free shopping, where French goods are bought at low prices, including specialised and well-known, cruising and yachting facilities. The tourism superstructure on St. Martin has been lamented to be a 'visual' pollutant, as hotel high-rises are anomalous to the landscape. Tourists arrive from St. Martin and St. Barts (because of their proximity) to Anguilla, Saba, St. Eustatius, and St. Kitts, for one day visits. St. Barts' tourism facilities are good, especially for water sports enthusiast, but in 1992, accommodation facilities were limited to 640.

The service sector is largely tourism, although it has not yet developed fully on Dominica. Tourism in Dominica suffers from limited beach life, and the lack of infrastructure and tourism facilities. As the main economic activity is agriculture (bananas), resources have been projected to improve the efficiency of that sector. However, despite these limitations, in 1961, arrivals were 3,535, increasing in 1968, by 285.7%, and in 1990, to 45,100, while per capita spending was US$554.32. Total arrivals in 1992 increased to 47,000 tourists, where tourism earnings were an estimated US$30.3 million, and per capita spending US$644.68 (see Table 3-21). The US accounts for 60% of the arrivals, followed by the Europeans with 12.2% market share, in 1990, and the remainder was regional tourists.

Eco-tourism, as a speciality, has been developing with the help of concessions from the government, but this type of tourism does not have mass market appeal, nor is it advisable ecologically. A major deterrent to the industry's growth is the almost nonexistent tourism superstructure, including the lack of hotel rooms, a capacity in 1990, of only 570 rooms. However, plans are underway to construct an international airport, a cruise ship pier and additional hotel rooms. The government is resisting off-shore financial development and is against casino development, but is committed to tourism because of its enormous earning power.
### TABLE 3-21
DOMINICA
TOURISM VITAL STATISTICS
FOR SELECTED YEARS
FROM 1960s TO 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>3,535</td>
<td>0.20</td>
<td>57</td>
</tr>
<tr>
<td>1968</td>
<td>9,977</td>
<td>1.30</td>
<td>130</td>
</tr>
<tr>
<td>1979</td>
<td>15,458</td>
<td>2.30</td>
<td>148.79</td>
</tr>
<tr>
<td>1980</td>
<td>14,322</td>
<td>2.10</td>
<td>146.63</td>
</tr>
<tr>
<td>1990</td>
<td>45,100</td>
<td>25.00</td>
<td>554.32</td>
</tr>
<tr>
<td>1992</td>
<td>47,000</td>
<td>30.30</td>
<td>644.68</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
St. Lucia’s service sector is mainly tourism, developed in the early 1900s, precipitated by the construction of the international airport at Vieux Fort by the US. In 1991, there were an estimated 5,855 visitors, with receipts of about US$270,000. Tourism grew by about 387.18% growth rate, from 1961 to 1968, to about 138,400 visitors in 1990, while revenues increased to about US$154.0 million, and per capita spending of US$1,112.72, similar to Antigua and Bermuda. In 1992, total arrivals were 177,500 visitors, an increase of 11.6% from the previous year, when per capita spending was an estimated US$1,171.27 (see Table 3-22). There was a hotel room capacity, in 1992, of 2,870 rooms. The majority of tourists originate from the US, however the European share, in 1991, was 29.69%, with the UK as the main generating market, followed by Germany.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>5,855</td>
<td>1.00</td>
<td>170.79</td>
</tr>
<tr>
<td>1968</td>
<td>22,653</td>
<td>5.10</td>
<td>375.40</td>
</tr>
<tr>
<td>1980</td>
<td>88,000</td>
<td>32.90</td>
<td>373.86</td>
</tr>
<tr>
<td>1990</td>
<td>159,000</td>
<td>153.80</td>
<td>967.30</td>
</tr>
<tr>
<td>1992</td>
<td>177,500</td>
<td>207.90</td>
<td>**</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
The Service sector in St. Vincent and the Grenadines is small but growing, with a small off-shore banking sector. The only viable service industry is tourism, and it is the major export of the Grenadines, but the government is gradually improving the tourism product on St. Vincent. In 1961, an estimated 3,100 tourists visited the islands, increasing to 12,107 by 1968, with receipts of US$1.07 million. In 1990, arrivals were 53,900 which realised revenues of US$56 million, and per capita spending of US$1,038.96, whereas in 1992, total visitors declined to 53,100, and per capita spending was US$992.47 (see Table 3-23). The main generating countries are the USA and Canada, *ipso facto* the decline in arrivals due to the declining trend from that market, which has been marginally offset by an increase from Britain, France and Germany, which represented an overall 23% market share (including all of Western Europe).

### Table 3-23

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>3,100</td>
<td>0.80</td>
<td>258.06</td>
</tr>
<tr>
<td>1968</td>
<td>12,107</td>
<td>2.90</td>
<td>239.53</td>
</tr>
<tr>
<td>1980</td>
<td>38,430</td>
<td>13.70</td>
<td>356.49</td>
</tr>
<tr>
<td>1990</td>
<td>53,900</td>
<td>56.00</td>
<td>1,038.96</td>
</tr>
<tr>
<td>1992</td>
<td>53,100</td>
<td>52.70</td>
<td>992.47</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
The services sector is primarily based on tourism, which has been a part of the Grenada and the Grenadines’ economy since the 1960s, while in 1961, 7,970 tourists visited the islands. In 1968, total arrivals increased to 23,164, and in 1970, arrivals increased to 30,436, which represented an overall increase of about 381.93% for the decade. Arrivals did not increase further throughout the 1970s, however, which resulted in a negative change of 3% for the decade (see Table 3-24). In the following decade, increases were tainted with the coup d'état and the counter coup, which created political instability. Nevertheless, arrivals increased steadily after 1985 to about 82,000 in 1990, and 87,600 in 1992.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$ million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>7,970</td>
<td>1.80</td>
<td>226</td>
</tr>
<tr>
<td>1968</td>
<td>23,461</td>
<td>6.40</td>
<td>273</td>
</tr>
<tr>
<td>1980</td>
<td>29,418</td>
<td>14.80</td>
<td>503</td>
</tr>
<tr>
<td>1990</td>
<td>82,000</td>
<td>66.60</td>
<td>812</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
In 1990, the elections resulted in increased external confidences, which resulted in the expansion of tourism and manufacturing. Tourism's expansion via local investment is of major interest to the government, and should increase the multiplier effect as leakages should be minimised (Archer 1979). Grenada is among the few islands that actively promote and aid local tourism investors, especially hoteliers. Local involvement in tourism should minimise resentment (Wilkinson 1989), especially those that could be racially motivated (Perez 1973). In 1992, there was a US$25 million line of credit available via the European Investment Bank, to assist local hoteliers in development and expansion. The main generating market is the US, and in 1992, the European share of the total was 19.41%, reflecting an annual average increase of 2.85% for the previous eight years.

The Service sector is one of the most developed in Barbados, increasing gradually since the 1960s, hence in 1977, services accounted for 70.92% of GDP, increasing gradually that by 1987 it accounted for 77.68%, and 80.21% in 1991. The sector is comprised mainly of tourism, but also there are valuable off-shore financial activities. Tourism has had a long history on Barbados, commencing with the advent of plantation life, when British aristocrat, traders, pirates and sailors visited Barbados, and the rest of the Caribbean. Organised tourism was recorded since the 1930s, but the industry was not validated until about 1950s with the arrival of mass travel. Barbados has been the subject of tourism books, articles, both journalistic and academic, largely because it has had one of the more successful tourism products. Indeed it is one of the most exposed of all the Eastern Caribbean. In 1961, 37,060 tourists visited Barbados, compared with 16,000 to Antigua during the same year.

In 1968, total arrivals increased to 115,697 in Barbados, realising total revenues of US$19.96 million (see Table 3-25). Generally, arrivals increased to 156,379 visitors in 1970, by about 421.96% for the decade. Arrivals although significant from 1980 to 1990, increased at a slower rate, peaking at 432,410 visitors, which represented a decade increase of 116.89%. Total tourist revenue was US$493.5 million, and per
capita spending was US$1,141.3 similar to Antigua and the Cayman Islands. Arrivals declined by 2.2% however, from 1991 and 1992, from 394,200 to 385,400 visitors, respectively. Barbados depends overwhelmingly on two traditional markets, North America and the United Kingdom.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT us dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>37,060</td>
<td>15.90</td>
<td>429.03</td>
</tr>
<tr>
<td>1968</td>
<td>115,697</td>
<td>53.90</td>
<td>465.87</td>
</tr>
<tr>
<td>1980</td>
<td>369,915</td>
<td>251.00</td>
<td>678.53</td>
</tr>
<tr>
<td>1990</td>
<td>432,100</td>
<td>493.50</td>
<td>1,142.10</td>
</tr>
<tr>
<td>1992</td>
<td>385,400</td>
<td>462.50</td>
<td>1,200.05</td>
</tr>
</tbody>
</table>

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The US has the highest share, followed by Europe's 32%. Generally, as for the remainder of the Caribbean islands that depend on the US market, arrivals have been steadily declining. Since the United Kingdom's arrival figures have been declining also, by 6% in 1991, there seems to be other problems that affect Barbados' industry. There are at least three possible reasons for the decline in arrivals in Barbados, and other 'mature' destinations; (1) Social problems, stemming from increasing unemployment, an estimated 14% in 1990, have negative impacts on the industry; (2) the possibility of an overly stimulated market, a result of too much advertising, including the push for annual increases in arrivals with the encouragement of airline charters; and (3) The reality that Barbados, as the Dominican Republic, Jamaica and the Bahamas, are mature destinations at the stagnation stage of the product life cycle (McElroy and de Albuquerque 1992b). At the stagnation stage, destinations have peak volumes, major promotional efforts are needed to maintain volume, and environmental, economic, social and environment problems are apparent (Cooper 1990, 1993, Witt and Moutinho 1989). The tourism product can either decline, or can be reinvented. Reinventing the product would be favoured, and this has been done by both Jamaica and Barbados, some which have been done through incongruous advertising (Dann and Potter 1994).

Tourism in Trinidad is quite specific to 'business' tourism, as Trinidad is industrial, and business people, from within and outside of the region, travel to transact business. Some 'pleasure' tourists travel to Trinidad for the pre-lenten Carnival celebrations. The sector is not as important to the Trinidad economy, as it is to other islands in the region, but it is important to the Tobago economy. It is therefore difficult, to discern the types and numbers of visitors that travel to these islands. Tourism arrivals are not categorised by purpose of visit, and in addition, arrival figures are a combined total for Trinidad and Tobago, hence it is unknown the exact number of arrivals that pertain to either destination. In 1961, total arrivals were 70,000, and in 1969, arrivals were 91,660, while earnings were about US$4.78 million, and in 1990, arrivals were 194,500, when earnings were US$ 94.5 million. Tourism spending per
capita was the lowest on Trinidad and Tobago, only US$485.86, in 1990 (see Table 3-26). Total arrivals increased to 219,700 in 1991, and by 6.9% in 1992, to 234,700 visitors, with estimated per capita spending of US$459.26, and US$465.27 respectively. It is doubtful if tourism will ever become a major industry on Trinidad and Tobago due to the lack of beach resorts, and the presence of other lucrative economic sectors. Tobago however, is the nation’s ‘resort’ destination.

### TABLE 3-26

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARRIVALS</th>
<th>TOURISM REVENUE (us$million)</th>
<th>AVERAGE SPENDING PER VISIT (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>91,660</td>
<td>33.80</td>
<td>368.75</td>
</tr>
<tr>
<td>1980</td>
<td>210,000</td>
<td>142.20</td>
<td>677.14</td>
</tr>
<tr>
<td>1990</td>
<td>194,000</td>
<td>94.70</td>
<td>488.14</td>
</tr>
<tr>
<td>1992</td>
<td>234,700</td>
<td>109.20</td>
<td>465.27</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)
Bryden 1973
The Service sector of the Netherlands Antilles is mainly tourism, especially cruise tourism and shopping, which has always been big business on the Dutch islands. Tourism is the life line of the northern islands, and Bonaire. Deep water harbours and their benefits were exploited early, and because consumer goods are mostly duty-free, the islands have become renowned for shopping. Bonaire is noted for dive tourism, and is home of a marine park full of wildlife, fauna and flora, an underwater ecologist's dream. Saba has been described as a fairy tale, the only Caribbean destination that virtually has no beach life, is volcanic with steep cliffs that fall sharply down towards the sea. Sint Maarten (the Dutch part of the island) has the most thriving tourism in the Netherlands Antilles, receiving about 100,000 visitors in 1970, 221,541 in 1980, an increase of 252% for the decade. Arrivals during the 1980s were buoyant, increasing steadily to over a half million visitors, 564,700 in 1990, and revenues of US$312.0 million. Tourism spending per capita was only US$552.51 (see Table 3-27), largely because of the mass market type of tourism product associated with Sint Maarten/St. Martin. In 1991, total arrivals declined by 2.96%, increasing again in 1992, by 3.85% to 568,700 visitors.

Aruba has the second most thriving tourism sector in the Dutch Caribbean, receiving 75,042 visitors in 1970, increasing to 188,917 in 1980, a 252% increase for the decade. In 1990, revenues were US$353.4 million, and per capita spending was US$816.54. Arrivals exceeded to over half a million visitors in 1992, a total of 541,700 arrivals, with per capita spending of US$607.35. Curacao is the third most popular destination of the Netherlands Antilles, receiving 106,628 visitors in 1970, an increase of 267% for the decade. In 1990, visitor arrivals increased to about 207,7000, with revenues of US$238.4 million, and per capita spending of US$1147.81, to 206,900 visitors, by 1992, with per capita spending of approximately US$1131.95.
### Table 3-27: The Netherlands Antilles Tourism Vital Statistics for Selected Years from 1979 to 1992

<table>
<thead>
<tr>
<th>Year</th>
<th>Arrivals</th>
<th>Tourism Revenue (us$million)</th>
<th>Average Spending per Visit (us dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>604,827</td>
<td>327.80</td>
<td>541.97</td>
</tr>
<tr>
<td>1980</td>
<td>611,787</td>
<td>383.50</td>
<td>626.85</td>
</tr>
<tr>
<td>1990</td>
<td>1,264,800</td>
<td>925.00</td>
<td>731.34</td>
</tr>
<tr>
<td>1992</td>
<td>1,398,300</td>
<td>1,043.00</td>
<td>745.91</td>
</tr>
</tbody>
</table>

Source: Caribbean Tourism Organisation (1961 to 1993)

The other Netherlands Antillean islands do not receive as many visitors as Aruba, Curacao and Sint Maarten, partially because the tourism products are not as developed. Visitors arrive mostly for day trips from neighbouring islands. In 1992, Bonaire received 50,600 visitors, Saba received 17,500, and St. Eustatius received 12,900 visitors. The Netherlands Antilles are host mostly to North Americans, whereby most visitors originate mainly from the US. Europe’s share of arrivals to Aruba was only 7.85% in 1991, and Curacao’s (the largest share of European arrivals) was 28.61%, followed by St. Maarten’s share of about 23.58%, originating mainly from the Netherlands and France.
Tourism in the Caribbean however, may not be the most viable economic sector to effect economic development, as 70% of the income it generates is repatriated, either through import leakages, repatriation of remunerations and profits, and incentives (Potter 1993). Nonetheless, its role as a contributor to region’s economic development cannot be denied. Notmistakenly, it is the only industry where the region has the comparative advantage, with the blend of sun, sea and a safe holiday haven, including easy access from North America and Western Europe. Further, there are limited alternatives to effect development, since ‘small islands that are unable to receive large number of tourists are being steadily marginalized’ (UNCTAD Secretariat 1985:127). The challenge that persists is to extract the maximum benefit from the industry, and detecting when the industry cannot expand further. Measurement of each island’s optimum carrying capacity is needed, and should be adhered to, as this will aid in ensuring sustainable tourism and economic development.
3.5 CONCLUSION

The attempts at industrialisation can only be seen in Jamaica, Trinidad and Tobago, and to a lesser extent on Barbados (Hope 1986). Macroeconomic problems have resulted in the Caribbean experiencing high unemployment on most islands, particularly on those that are agriculturally based. Services (tourism) based islands have been the most successful, but the continued trend of the economies is the pursuance of a narrow range of products, and export sectors. This is apparent, even when countries have proceeded to the second and third stages of development. This reliance increases vulnerability (Briguglio 1992), but the fact remains that, in the Caribbean, there are few sectors that could be exploited to effect economic development. The region cannot adhere to the conventional theory proposed by Rostow (1956), as it can be said that the region has 'leapfrog' the stages (Shelps 1985).

The need for economic diversity was discussed at length in 1992 (at Caricom head of government meetings), as the governments have noted the need to pursue policies that will encourage food self-sufficiency, in attempts at reducing the balance of payment deficits. Individually, the economies are faced with inefficiency in production, due to diseconomies of scale in production and technology, and high production cost per unit (Streeten 1993), hence specialisation is the norm with small states (Kuznets 1963). Nonetheless, regional production of self-sufficient foodcrops and manufacturing activities working in tandem could reduce marginal costs. This can only be accomplished however, with a concerted regional effort.

The aforementioned economic summaries surrounding the Caribbean islands indicate adhoc attempts at economic activities, fragmented, sometimes duplicative and inconsistent use of resources, with minor successes. The Windward Islands, Jamaica, Barbados and The Dominican Republic suffer from high unemployment, as high as
30% in the Dominican Republic. Additionally, there is extreme poverty in the Dominican Republic and Jamaica, and limited economic alternatives for job creation.

In some cases, problems of inflation exist for basic necessities, and the uneven distribution of income aggravates social issues. The Caribbean economies however, by 'developing' standards, are relatively prosperous. Challenges remain for the governments of the region to obtain higher levels of economic development, through sustained economic growth. The governments need to involve the local people more in the development process (Wilkinson 1989) by the granting of incentives to local and regional businesses, and by encouraging local investment and entrepreneurship, as pioneered by the Grenada government. It cannot be stressed enough, how regional control of industry, specifically the tourism industry is a sine qua non, to minimise some leakages, a fortiori the economies' multipliers, thus increasing economic growth and development.

The forms of manufacturing in the Caribbean are principally of the agro-industries and assembling type factories, of which the latter has been criticised as being of little value to economic growth (Hope 1986). The inputs are imported, the final goods are exported, the companies enjoy tax holidays, sometimes up to 15 and more years, and pay lower wages and benefits. Employees have less compensation and poorer work environments than they would have to provide in the home countries, and then of course, the profits are repatriated. The obvious question would be, Why would a Caribbean government encourage this type of exploitation? The answer is simply, to provide employment, but because of cases where companies ceased functioning after the tax holiday had expired (Potter 1993), ipso facto, resulting in high unemployment and abandonment, a problem during the 1970's, Caribbean governments have become more adroit in negotiating contracts. This has occurred as well, in relation to management contracts regarding hotels in the region. There needs to be attempts at facilitating only those companies that seem to have long term commitment, local involvement, and training schemes, as is evident by the Four Seasons in Nevis.
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The future of the islands rests not in individual pursuit of economic activities, which in terms of international economics is an overly dependant one, but in regional cooperation if the individual economies are to prosper. Regional integration is 'no longer a Caribbean option. It is a top priority, imposed by major world trends and policies' (Sir Sherlock 1992:53). Equally as important as the need for Caribbean synthesis among its nations, is the need to mobilise local and regional capital for investment, and investment on human capital. Human development through education and training is important *sui generis*, but it is at present integral to the regional personnel's participation in the tourism industry. Regional capital investment, specifically from the private sector, would aid in reducing the share of foreign ownership, thus minimising the repatriation of profits and remunerations to the North. Local and regional participation will minimise the resentment that arises, due to the division of labour in the hotel sector in particular, specifically where top-level employment opportunities are concerned (Richards 1982).

The proximity to North America results in significant tourism demand, especially from the US, which needs to be maintained to sustain the industry, unless arrivals from the EU can compensate for the short fall. The North American demand has been falling over the present decade, because of the economic recession of the late 1980s, and the 'See America first' campaign, by the US tourist bureau. At the same time, the EU share has been increasing at a rate as high as over 20%, in 1993 and 1994, in some commonwealth countries.

The region's major threats are the destruction of the natural environment (Dolman 1985), and drug-trafficking (Oyowe 1992) from the South. The former will serve to destroy the region's agriculture, fisheries and tourism sectors, and the latter the social framework of such small states in the world's socioeconomic biosphere. The difficulty that remains is the encouragement and fostering of good leadership, where vision is a function of that leadership. The importance of education, revered by the masses, and increases in skilled personnel returning to the region (Pastor and Fletcher
1992) are germane in aiding the region's development. The importance of the socioeconomic framework that has kept these small communities sustainable over the last five centuries, must be preserved to render them viable over the next half millennium. The region cannot afford to lose its pristine 'environment', even in the pursuance of economic development (Mikesell 1992).

Nevertheless, the Caribbean today at a glance may seem to be an "underdeveloped" region. A closer look however, will reveal that in some ways, and deceptively, it is among the most 'western' of all countries outside the United States of America and Western Europe (The European Union), (Mintz 1971). Except for Cuba, the economies are capitalist, open, with democratic political processes. The Caribbean is 'western' not only geographically and politically, but historically, due to those economic organisations and the elimination of the 'indigenous' from the cultures where a more 'Europeness' has taken it's place. It is inter alia, the long relationship with Western Europe that, had initiated this process, and it is the proximity to the USA and television that have maintained this 'westernisation'. The poverty that exits today, is no different from the relative poverty of other Western nations, and the Caribbean sui generis is in no way economically deprived as some developing countries. Some countries in the region, enjoy some of the highest per capita incomes in the world. The economies are developing, and the importance of the services sector, especially tourism, off-shore finances and information technology, in the post industrial era, will continue to shape the future of the economies. The continued commitment to sound industrial ventures, as well as, agriculture and fisheries, and an urgent, well strategised regional economic integration, should aid in the development of the Caribbean.

The following chapter regarding the EU and its implications to the Caribbean, points out the role of the EU in the Caribbean, and the instrument by which trade with the two areas has continued, since independence and reorganisation of the regions' political status. The focal point of international trade is one area that is integral to
the Caribbean’s economic development, and without this aspect of the region’s economy, the development process would be retarded. The position of the Caribbean economies on the barometer of economic development was discussed in the foregone, and the ability to maintain or gain a momentum to sustainable economic development, in view of the EU and international trade will be highlighted in the following analyses.
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4. THE EUROPEAN UNION AND ITS IMPLICATIONS FOR THE CARIBBEAN

4.1 AN OVERVIEW: THE LOMÉ CONVENTION

The Caribbean has traded with West Europe since the inception of the economies, and a preview of that relationship was discussed in chapter two. The present economic situation which was outlined in the previous chapter (two and three) forms the background, while in this chapter the mechanisms, type, and quantity of trade are discussed.

The Treaty of Rome which ushered in the EEC, for the first five years of operation extended trade to the developing nations, and lowered tariffs to associated members. The associated members included the 26 dependencies or trustee territories, and were recipient of funds available for development. These provisions included the 5 French Caribbean territories of Guadeloupe and its dependencies, French Guiana, Martinique, St. Barts and St. Martin; and the 7 Dutch states of Aruba, Bonaire, Curaçao, St. Eustatius, St. Maarten, Saba and Suriname. The French and Dutch Caribbean, however, are considered part of, and an extension of the metropolis, of the European countries. The English Caribbean were either dependencies, colonies, or commonwealth nations, but freedom of movement was more restricted to the community, than the French or Dutch Caribbean nationals.

Nonetheless, the Anglophone Caribbean was not included in arrangements under the EEC, until Britain’s acceptance into the European Community in 1971. Twenty-two countries in Africa, and the remainder in the Pacific, including French Polynesia (Tahiti, Bora Bora and Morea) were recipients of preferential trading agreement with the EEC. The agreement governing this special arrangement was signed in 1961/2 in Yaoundé, the capital of Cameroon, giving birth to the Yaoundé Convention,
operational from July 1964 (Lomé’s predecessor). Although the Netherlands territories in the Caribbean were included in the special arrangements for territories, but Indonesia, much to the Dutch disappointment, was not included.

In return for special tariffs, the ACP nations, as they were later called, had to extend the Most Favoured Nation treatment (MFN) to EEC imports under Yaoundé, but this stipulation was later abolished under Lomé. The European development funds (EDF), an annexation to the Treaty providing resources to finance investment projects, allocated about ECU 3.6bn for the territories, for development. The review of the first five years would determine the viability of the arrangement, and the subsequent provision of the convention which would give rise to following agreements. Yaoundé II was signed in 1969, proving the favourable position of the arrangements in the preceding five years, until its expiration in 1975 when the Lomé Convention was signed.

Modification to the Yaoundé Convention was necessary, with the entry of the United Kingdom and its vast Commonwealth territories into the Community. Its preferential trade arrangements were similar to the French, when it negotiated for a favourable position for its colonies and territories in 1957. Ironically, the most adamant dissenter to the UK colonies inclusion was the French, who considered the Commonwealth as a menacing competitor to the French territories. They argued that, by including the vast Commonwealth territories, the overall comparative preference of the recipient countries would be lessened. France’s debate was probably fair, given the uneven level of development amongst the many territories.

As history has proven, countries like Singapore and Malaysia have prospered without Lomé. And as the stringent ‘rules of origin’ remain, these countries would be restricted in the choice of industrial activities, vis à vis their development status. Perhaps, Britain’s failure to gain the inclusion of the emerging industrialised nations of Asia - India, Pakistan, Malaysia, Singapore, and Hong Kong has worked to their
advantage. The Lomé Convention was signed in Lomé, the Capital of Togo in February 1975; and with its formation an inclusion of a ‘hodge podge’ of Anglophone, Francophone and Dutch nations, 46 of which had colonial subjugation as its only commonality, gave rise to the Africa, Caribbean, Pacific (ACP) group of nations. Lomé I covered the period from 1975 to 1980, succeeded by Lomé II that covered 1986 to 1990. Membership increased to 59, and by Lomé III in May 1986, seven more nations were included giving a total of 66 members.

Lomé I was signed in December of 1989, and was validated for 10 years to 2000 AD, whereby the basic provisions for preferential access remained. The agreements have been based on four principles: security, which is legally enforceable, equality between the ACP and EU countries, breadth to ensure mutual benefits for the participants, and consultation through avenues such as, the Centre for Industrial Development (CID) (Edye and Lintner 1992). ACP goods were to be accepted entry into the EEC, free of quotas and tariffs. Aid, both bilateral, at the United Nations norm of 0.7% of GNP, and multilateral would be granted. This stipulation of trade covered virtually all agricultural and manufactured goods, without reciprocal agreements as the Yaoundé Convention had stipulated. As far as the Caribbean was concerned, the benefits mostly included guaranteed quantities for sugar and bananas, at a price obtained in the EU, and negotiated annually. The Caribbean was still therefore, largely a price taker, as it holds no monopoly position, and cartel arrangements applied to only a few major money earners - oil, bauxite, spices, and coffee.

Included in the agreement is a protocol on rum and bananas, a direct protection of traditional suppliers from competition from third countries. The provision of aid for a five year period from 1990 to 1995, of ECU12,000 Million (about US$10 million) is largely allocated to development projects. Moreover, as will be discussed fully later in this chapter, Caribbean share value of exports have declined for non-oil exports. The decline is not due to the decrease in quantity, as the proportion of ACP non-oil goods have remained constant at 75% for the period 1975 to 1986 (McQueen
1989). Although export quantities have remained constant, the price per quantity has fallen, resulting in the marginalisation in ACP imports (The Economist 1994). Indeed, Bananas have been the recipient of lower prices under Lomé I, due to increased competition from the Central and South American banana producers (Davenport 1991).

The strict ‘rules of origin’ remain, ensuring that third countries do not use the ACP countries, as an avenue to gain entrance (goods) into the EEC. This hinder however, manufacturing exports from ACP countries to the EU, as most ACP countries and especially the Caribbean, need to import raw materials from third countries (McQueen 1989). Thus, the negotiations of Lomé I called for a redefining of the ‘rules of origin’, more in favour of manufacturing goods. Notwithstanding, the rules are still quite stringent, and not many gains have actually been made, a partis pris hindering the nations’ ability to attract major quantities of investment. The New Industrial Countries (NICs) of South-east Asia have been recipients of large quantities of investment, which precipitated and aided in their rapid development. These types of investments seem to be a prerequisite for economic development (Edye and Lintner 1992). Manufacturing, as an option to development similar to the NICs, would have to fall under the General Agreements on Tariffs and Trade (GATT), and international agreements are such, that Caribbean goods would probably be marginalised through competition on world markets. Conversely, due to the US partial shift in its international division of labour, exports have expanded considerably to both the US and Canada (McQueen 1992). Policies have been enacted to improve the light industrial sector of the Caribbean, prima facie more negotiations regarding the relaxation of the ‘rules of origin’ would benefit Caribbean manufacturers.

Mcqueen postulated that, perhaps the substantial gap between the appearance of restrictions and the reality of the openness of the EU’s General System of Preferences (GSP) for most products, might be the mercantile philosophy which appears to dictate a vast portion of EU trade policy, and it desires to ‘manage’ trade. A relaxation of
the rules would benefit the Caribbean categorically, by leaving an alternative avenue whereby foreign investment could be attractive to boost development, especially in the high unemployment islands in the region.

Agricultural goods however, that competed with products that fell under the Common Agricultural Agreement (the CAP) were given partial provisions under Lomé. Considerably fewer tariffs were placed on these goods, than the non-ACP countries, and special arrangements were made for the entry of sugar and beef.

4.2 PROVISIONS FOR THE CARIBBEAN

The formation of the EEC with the signing of the Treaty of Rome in 1957, to its full unionisation in 1992 was perceived by the world as a way for Europe to isolate itself, in a cloak of protectionism. This isolation was mostly referred to in trade terms, and with the arrangements which precluded the CAP and the Fisheries Policy, some traditional trading areas were discontinued. Article 237 of the treaty states that any like-minded European state could apply for membership. As history has unfolded, membership originated from six countries in 1957 to doubling its size in about thirty years. Indeed, much trade has been shifted away from colonies and ex-colonies, especially those that are larger, either in terms of GDP, land size or population. Articles 131 and 136 state that 'non-European countries and territories that have 'special relations' with the member countries, could be brought in with 'association status' with the Community. Similarly, special association under article 238, embodying reciprocal rights and obligations could be created between the Community and any other third country or groups of countries (EEC-ACP 1989).

Including in the provision in Articles 110-116 was the formulation of a Common Commercial Policy by the Community, to perpetuate amicable world trade developments. The provisions made for the inclusion of non-European nations, seem to suggest that isolation was not the intention of the EEC, though protectionism has
grown. The original provision for *a priori* or existing colonies of European nations was a benefit initially for Belgium and France. Principally it was a major benefit for France's 'Départements D'Outre Mers' (DOMS) as they are considered a 'région' of France. Undoubtedly, the world would benefit considerably from the liberalisation of trade, and *ceteris paribus*, the developing world would be the main beneficiary. The fact remains that most of the new protectionism directly affects developing world (McQueen 1992), an antithesis to their economic development.

### 4.3 THE LOMÉ CONVENTION AND THE CARIBBEAN

The entire Caribbean does not benefit from the 1975 Lomé Convention. Cuba is not included, although the share of EU trade has increased from 5.3% in 1980 to 8.1% in 1990. Puerto Rico and the United States Virgin Islands (USVI) are covered under the United States foreign policy regarding to world trade under the GATT, and the Caribbean Basin Initiative (CBI). The Anglophone, the Francophone, the Dutch Caribbean, the Dominican Republic, Haiti, and the Guyanas of South America - Guyana, Suriname and French Guiana are recipients of trade and aid and preferential access from the European Union.

Lomé was principally devised to facilitate trade between the ACP and the EEC, as stated in Lomé 1, Title I, article 1, 'the object of this convention is to promote trade between the Contracting parties'. The reality is that in terms of goods, the Caribbean's trade is negligible from the EU's point of view, but extremely important from the Caribbean's vantage point. Undoubtedly, with an area of about 30 million people, the potential as a market for European goods is recognised by the EU. Trade with the EU is important in its provision to earn foreign exchange, essential to an area where high imports are endemic. Indeed, the percentage of trade with the Caribbean is only about 1.6% of all EU trade, and only about 8% for all ACP nations combined. Where world trade is concerned, even with the inclusion of services, the Caribbean's
bargaining power is at a disadvantage. Thus, its position is even weakened further when analyzed on an individual basis.
4.4 TRADE WITH THE EUROPEAN UNION

Sugar, as pointed out earlier in this treatise, was the principal good traded with Western Europe, although its decline has been a major characteristic during this century. In 1938/39 (before the war years), the Caribbean exported 2,225,715 tonnes (raw value) of sugar to Western Europe. In 1945, the year following D-day, the tonnage exported fell to 1,420,393 never fully regaining its optimal levels (see Table 4-1). Although export quantities continued to increase, the peak year was in 1953, just before the further reduction in prices that practically ensured the total demise of the industry. In 1952, the output exported was 2,377,06 tonnes, but in 1962, the tonnage exported was only 915,205.

During the 1970s, there was not an improvement in the export figures, and it was during this period that many islands abandoned sugar as an export sector, and instead, pursued other economic alternatives. In 1970, 730,006 tonnes were exported to Western Europe, in 1980, 387,545 tonnes, and by 1990, with only a slight improvement, when 456,393 tonnes (raw value) were exported. The reason for the decline in exports of sugar was due in part to the declining production levels, but mostly due to diminishing terms of trade, chief among them export prices, and declining demand.

The declining prices meant that the industry was no longer sustainable, and plantation economies abandoned production altogether. Presently, only Cuba dominates as a major sugar producer in the region, exporting 433,071 tonnes (raw value) in 1984 to the EU. Export quantities increased to 514,627 tonnes in 1989, but fell to 222,487 tonnes in 1990 to the EU. Barbados, the Dominicán Republic, the French Antilles, Jamaica, the Netherlands Antilles, St. Kitts, and Trinidad and Tobago have maintained the sugar industry with all its problems, as a means of economic diversification.
### Table 4-1: Caribbean Sugar Exports to Western Europe (1939-1990)

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*French West Indies were excluded from the agreement about the 1970s, after becoming a Département outre-mer (DOMs).*

Source: International Sugar Organisation 1939 - 1990 Holland
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*French West Indies were excluded from the agreement about the 1970s, after becoming a Department outre-mer (DOMs).

Source: International Sugar Organisation 1939 - 1990 Holland
In Barbados in 1984, exports were 73,427 tonnes, up from 52,636 the previous year, but in 1989 exports were down to 43,736 tonnes. Only slight improvements have been made, thus by 1990 exports increased to 55,882 tonnes (raw value) to the EU. The overwhelming evidence suggests that the importance of sugar, as a means of sustaining the economies, (except for Cuba) has long since past, leaving in its place bananas as the major crop.

Jamaica and Trinidad had the highest 'visible' trade, followed by Cuba. In general the Caribbean trade balance with Western Europe has been mostly a deficit, although there have been surplus years. In 1958, the trade deficit was US$4.7 million, improving to a trade surplus of US$61.83 million in 1975, and US$113.23 million in 1991, declining again in 1992 to surplus of US$81.39 million. In 1990, a year when the deficit was US$91.6 million, Jamaica exported 24.8% of its products to the EU and imported 12.3% from the EU. Both figures were reductions from the previous year, and what is more important, exports to the EU declined by 4.8%, compared with only a 0.3% reduction in imports. Trinidad and Tobago had a trade deficit of US$124.15 million with the EU, in 1992. The Dominican Republic exported 14.1% and imported 11.2% in 1990 from the EU in 1990, a continued trend of marginal increases in trade. The Caribbean's main limitation is size, _ipso facto_ diseconomies of scale result and only a concerted effort could improve its position in world trade. There needs to be a reorganisation of its export policies and improvement of import substitution, specifically where food production is concerned.

Nevertheless, some goods exist for trade, namely sugar, bananas, coffee, cocoa, spices, cotton, coconut and palm products, including a number of manufactured goods. Article 27 and 28 of Title 3, mentioned that aid would be given by the Community for the improvement of infrastructures and industrial ventures, whereby contributions will be made to the states' infrastructures to facilitate _inter alia_, industrial development, communications, training, technology and research. In addition, there would be provisions made to improve the efficiency of small and
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medium enterprises (SMEs), including concerted efforts where industrial information, promotion, and trade cooperation are concerned.

The Caribbean has industrial parks and free zone areas on basically all of the islands, but the contribution of manufacturing to GDP remains low. In 1991, manufacturing represented only 3% of GDP in Antigua/Barbuda, 7% in Barbados, 17% in Jamaica, 12% in St. Kitts/Nevis, 7% in St. Lucia, and 9% in Trinidad and Tobago, which indicates the highest levels on Jamaica and among the lowest on Antigua/Barbuda. Obviously the possibility exists for the inclusion of industrial ventures on all of the islands, and particularly agro-industrial ventures which Antigua and Barbuda has stated is an immediate policy for implementation. But the problems of economies of scales and the duplication of resources remain. Individual efforts must give rise to regional ones if industries in the Caribbean are to compete on a global level, by manufacturing those products where the region has the comparative advantage.

At the time of the Lomé Convention’s inception, sugar and bananas were the main agricultural exports to the EU, produced on small disconnected farms. Sugar producers were guaranteed the prices that sugar beet prices received under the CAP. This advantage however, did not deflect the decline of the sugar industry in the Caribbean, as prices on sugar beet were depressed, and likewise were the prices of cane sugar. The trend of the monocrop continues, very evident on St. Lucia, St. Vincent and the Grenadines, and Dominica’s total reliance on the export of bananas. Thus in 1987, St. Lucia exported 87 million ECU of goods to the EU, and bananas represented 85 million ECU or 97.7% were of total exports (Davenport 1991). Bananas were purchased at their stated prices, higher than that of the Central and South American prices. The Latin Americans complained at GATT talks and, ipso facto during Lomé I negotiations, bananas became a disputed inclusion, with the EU threatening to eliminate bananas from Lomé altogether.
The GATT was devised after the Second World War as a mechanism to conduct international trade negotiations. It is a permanent organisation with 92 member countries in 1990, its own secretariat and headquarters. The GATT's basic philosophy is that, one country could engage in bilateral negotiations with another country concerning tariffs on trade. The gains made by one country must be then offered to every other member country, ipso facto bilateral agreements would give rise to multilateral ones. Thus, it is not surprising given the stipulations under the GATT that, concessions had to be given to the Latin Americans, at the expense of the Caribbean banana industry. Nonetheless, the entire preferential treatment under Lomé was intended to give the ACP an advantage, albeit at the expense of other world producers. This advantage has been diminishing, as the EU in successive rounds of negotiations under the GATT has reduced its tariff. There is a case to debate that in subsequent rounds of negotiations under the GATT that, the preferential access of Caribbean goods would be completely marginalised by the overall lowering of world prices. Additionally, if the EU's interest is threatened in anyway, there are margins to manoeuvre that would allow the EU to circumvent trade, irrespective of the fact that Lomé is legally binding.

Caribbean bananas are faced with lowering prices, and although it has a low income elasticities of demand, it is disadvantaged on the EU market, due to competitive pressures. The factors that affect Caribbean bananas adversely cannot be reversed easily in the shortfall, as production in the Caribbean suffers from diseconomies of scale, largely due to fragmented production and inefficient cultivation. Production of the fruit is carried out mainly on small-holdings, which result in high costs of production and therefore, higher prices. Costa Rica and Colombian bananas are cheaper because of the larger scale of operation and superior production methods. These factors allow for economies of scale and lower cost, thus the Caribbean is losing the comparative advantage in banana production. Bananas narrowly escaped expulsion, but prices had to be lowered, costing the banana producing economies considerably. In a free market situation, bananas would be subjected to a 14% tariff.
that would result in a loss of 55% of export volume and 70% of export earnings (Davenport 1991). Thus, by allowing bananas special access to the EU’s markets at a higher price than the Latin American bananas would fetch, would actually cost the EU, a subsidy for the Caribbean bananas. Even a set 70 ECUs per 100kg would cost the EU, and the islands would lose 15% in volume and 20% of export value (Davenport 1991). A concerted effort by the banana producing nations should be made to improve production methods, possibly through the improvements of cultivation on larger land-holdings, if the cost of production is to be reduced.

The framework of the Convention embodies the ACP nations as a whole, inferring that export volumes from the ACP states to the EU are quoted in the aggregate. Therefore, the Caribbean islands, if they could meet larger targets would have to compete for quota shares directly with those ACP states that produced the same products. However, given the narrow range of goods the likelihood of that occurring is negligible, and undoubtedly, there could be competition for funds under the European Development Funds (Outface) by the ACP member states. Fortunately, the Caribbean islands fall under the special provisions (funds) for island states, as special concessions are granted to small islands. In article 12 of the Convention, trade promotions are stipulated for the improvement of the ‘structure and working methods of organisations, department or firms which contribute to the development of the foreign trade of the ACP (ACP-EEC 1975:33). Article 17 spells out bananas on its lists of products that are covered under the STABEX (stabilisation of exports) scheme, whereby islands export earnings are stabilised concerning certain export commodities.

Theoretically, compensation is paid to exporters of a limited range of products, set under Lomé III at 6% with an additional 1.5% for islands, landlocked and the least developed states. Lomé I led to a reduction to 4.5% for compensation and 1% for islands, landlocked and least developed states. The banana industry in the Caribbean should make use of these funds to improve its production, and its competitive
advantage. Critics have pointed out the under funding and limited coverage of the funds for STABEX, from 925 million ECUs (10.9% of the total aid budget) under Lomé III, and ‘justified’ funds were 920 million ECUs, in 1987 (Edye and lintner 1992). Lomé I gave rise to an increase of 62% in STABEX funds, to 1500 million ECUs but it is criticised as insufficient given the aid packages promised to Poland and Hungary of US$60 per capita, compared with US$33 for the ACP under Lomé I. In addition, aid has been slow and inefficiently disseminated due to bureaucracy, since funds from Lomé III are only currently being spent on various projects.

The Caribbean’s ability to negotiate and obtain EU funds would be more successful under NGOs (non governmental offices), as the CTO has proven to be in obtaining tourism promotion funds. Thus, a similar body must be set up to manage ‘visible trade’ within the region, lest the primary sector is squeezed out of the world international commodity trade. International trade aside, the region needs a viable regional programme to curtail imports. Thus in 1975, the Caribbean began a food plan called a Regional Food Plan (RFP), designed to reduce the region’s reliance on food imports. In 1976, a Caribbean Food Corporation (CFC) was founded as an institution by which the RFP could be implemented. All of the Caricom countries held shares in the corporation, but it was only in 1979 that some countries legislated that the corporation becomes an operational body. To date, the Caricom nations have only enacted legislation to the operational function of CFC. The CFC needs full operational status, similar to that of CTO, with liaison between the two bodies where issues under Lomé can be addressed.

The EU has allocated resources for additional and alternate export commodity production, a sine qua non for widening of the region’s economic base. A diversified economy maybe is a stimulus to economic growth, under which economic dependency can be reduced. The Caribbean should utilise these resources more effectively, to build more efficient economies. The investment in infrastructure, improved modes of transportation (to reduce cost), human and physical capital, which should increase
economic efficiency. The necessary financial and technical assistance have been stipulated in Protocol No 2, article 1. The provisions are set out in article 3, 4 and five of chapter 2 regarding the financial arrangements and chapter 3, article six discusses technical cooperation. The region must make use of the Outface (European Development Funds) to improve its economic development and to better its position in an increasingly competitive global market place.

Lomé I extends until 29th February 2000, and the subsequent discussions of Lomé V may prove to be unsuccessful as far as Caribbean bananas are concerned. Structural changes need to be implemented in the region, to reduce the cost of agriculture production. A committed unified effort to rectify its production policies is urgently needed. The problems pertaining to exports from the Caribbean continues, as prices sui generis have declined for oil, bauxite and alumina, and sugar, although sugar prices have risen since 1991 (The Economist 1994). Additional, prices continue to decline for coffee and cocoa on the world market. The trend for primary products has been in decline for the past twenty years, due to increased yields, resulting from efficient technology.

The economic outlook pertaining to the commodity export of Caribbean economies begs at least two questions; why are the Caribbean islands still carrying on the colonial mandate of monocrops for export without seeking ways of diversifying the range of crops, and better organisation of existing ones, in an attempt to realise economies of scale? and: Why have food subsistence levels decreased continually, depriving the region of some semblance of self-sufficiency, relying instead on imports in view of the fact that primary goods prices have continually been eroded on the open market? Among the short answers are of-course the fragmentation of the islands whereby competition is the order of the day, when a regional effort should be a matter of course. In addition, environmental factors and size have lead to problems, where arable land for agricultural cultivation is lacking.
On the individual islands, declining employment in agriculture *sui generis*, and the progression towards economies based on services, mostly tourism services is a factor of development (Hope 1986). The industrialised market economies are largely based on services with an average in 1985, of 61% (The World Bank 1987). However, there are some aspects of tourism literature that blame tourism for its displacement of agriculture (Bryden 1974, Harrigan 1974, Hills and Lundgren 1977, Hope 1986 and Weaver 1988). Yet others, such as Latimer (1985:33), acknowledges ‘that export agriculture has declined, but not because of tourism’, and goes on to say that, ‘traditional agriculture has also declined where national income has risen, whether through tourism or other cause’, and that ‘correlation is not causation’. Although, the dissenters might pontify that, subsistence farming has also declined substantially, there is a case to argue that peasantries had only developed marginally after emancipation (Mintz 1961), due in part to land tenure on one hand, and adverse weather conditions on the other.

Nonetheless, agricultural export decline must be viewed in consideration of the regions’ inability to obtain substantial prices on the open market. Preferential access to the Western European market under the Lomé, and the US market under the CBI (Caribbean Basin Initiative) has benefitted the region, but increased protectionism does much to decimate commodity trade. The quantity of goods traded and the price is given by the developed countries. Caribbean trade is therefore subjected to the expansionary and contractionary monetary policies of the developed world through the manipulation of interest rates, which in turn affect demand for exports.

Expansionary policies in an open EU economy are dictated by the level of savings and investment, which is a function of interest rates and their direct causation of growth of national income (Y). In a simple format, where income can be consumed or saved, given by:
Chapter 4: The European Union and its Implications for the Caribbean

\[ C+I=C+S=Y \]  \hspace{1cm} 4-1

where:

- \( C \) is the level of consumption in the EU
- \( I \) is the level of investment in the EU
- \( S \) is the level of saving in the EU
- \( Y \) is national income (GNP)

From equation 3-1, one can surmise that:

\[ I=S \]  \hspace{1cm} 4-2

If the economy in the EU is expanding as illustrated in figure 4-1, an autonomous increase in investment results in increases in national income \((Y)\), denoted by:

\[ I_0 + \delta I \]  \hspace{1cm} 4-3

to create a new equilibrium:

\[ S\delta Y = \delta I \]  \hspace{1cm} 4-4

following:

\[ \delta Y = \frac{1}{S}\delta I \]  \hspace{1cm} 4-5

where \( \frac{1}{S} = k \), which is the multiplier, and as \( S \) varies between zero and unity, and \( k \geq 1 \). The new investment schedule shifts upwards, thus national income expands, where \( \delta Y \) results from \( Y_1 \) to \( Y_1 + \delta Y \). Conversely, if the economy is contracting or in a recession, as investment is usually lower at this time, the economy contracts, and the investment curve shifts downwards, from \( IS_0 \) to \( IS_1 \), as shown in figure 4-2. High levels of saving would result in an upward shift in the saving curve, as seen in figure 4-3, to \( S_1 \), where income increases to \( Y_1 \), as investment increases to \( I_1 \).
Figure 4-1

Expanding Economy
Chapter 4: The European Union and its Implications for the Caribbean

Figure 4-2

Contracting Economy
Chapter 4: The European Union and its Implications for the Caribbean

Figure 4-3

Savings & Investment

Shift in Savings

National income (y)

I₁

I₀

y₀

y₁
Chapter 4: The European Union and its Implications for the Caribbean

It is not in any country's interest to purchase large quantities of goods at prices that are too high. The sobering deduction lies in the Caribbean's review of its ability to sustain trade in a narrow range of products, in a fast changing global market. Some economists and policy makers, such as Hope (1986) and Brandt (1980), suggested that trade between developing countries be encouraged and implemented. Although, multilateral trade agreements are inherently more beneficial that bilateral ones, the products one sells must have a market. Islands in general suffer from very little to no resource endowments, and unless resources from the sea bed can be mined and used as inputs, the Caribbean will continue to be at a disadvantage, within the commodity markets.

Despite this disadvantage, there has been an increase in agro-industries and other industrial developments in the region, notably in Trinidad and Tobago, Barbados, Dominica, St. Vincent and the Grenadines. Some tentative measures are being taken by Leeward Islands government to institute agro-industries, as the need has increasingly become more apparent. Negotiations continue amongst the Caribbean Common Market (Caricom) ministers regarding increased cooperation and the formation of a full Customs Union, a most important need to effect future economic development in the region. Food production targets had been set from the inception of the RFP, all of which have fallen short of the proposed targets. The full functioning of the CFC is germane to the region's improvement of domestic production, as Caribbean products have been becoming increasingly marginalised on the EU market.

The success of the GATT in reducing tariffs in future successive round of talks will effectively reduce world prices, thus the trade advantages under Lomé will become immaterial. On one hand, protectionism by developed countries continues to grow, and the EU is no exception. Protectionism lead to higher prices through monopoly type pricing ($P_m$), (see figure 4-4), which results in waste or 'deadweight loss' ($Z$), vis à vis a lower market prices ($P_e$), which would result in a free trade situation.
FIGURE 4-4

$X =$ Consumer Surplus
$Y =$ Monopoly's gain
$Z =$ Dead-weight loss (waste)
Figure 4-5

Operating Leverage Graph
Higher prices adversely affect the consumer, and lead to surplus (X) through a reduction in the quantity demand, from $Q_e$ to $Q_m$, where marginal cost (MC) is variable, and marginal revenue (MR) declines, as the quantity demand (D) falls. In a true free market situation, demand would determine price, and farmers would have to compete as businesses do, based on profit and loss (see figure 4-5). With this type of market pricing and free market situation, marginal farmers would find it difficult to compete and would be put out of business, and it is this fear of marginalising the farming community which has resulted in increase protectionism.

Figure 4-6
 Nonetheless, the EU is contending with falling output, judged by the slow GDP growth rates, increasing competition from the new industrialised countries (NICs), and high rates of unemployment. On the other hand, the Caribbean nations must also reduce the need for protectionism, freeing itself of the burden of dependency, where the world market is viewed as a place in which it can compete without the issuance of MFN status. The economies must become business-oriented, full market players, encouraging diversification, nurturing its human capital to operate in a vibrant global marketplace, where its regional expertise can participate effectively in trade negotiations under the GATT.

It is quite likely that the protectionist measures under agreements like Lomé, inadvertently hinders the region’s capacity to grow more food to feed itself. Farmers are predisposed to produce for export crops to foreign countries, rather than for regional demand. Animal, poultry, and fisheries industries must be reviewed, whereby their capacity as vehicle to self-sufficiency is mobilisation and sustained.

4.5 THE TRADE LINKS

Trade links with Western Europe has traditionally been along the old colonial ties, with the Anglophone islands trading with the UK, and the Francophone with France. The Netherlands Antilles are the exception, with consistently more of its exports going to the United Kingdom (UK) in the EU than with the Netherlands. Moreover, the Netherlands can be considered to be the second most important trading partner with the Caribbean on a whole, after the UK.

It is important to note that, after political independence in the 1960s and onwards, the trade links have continued up to the present and in some cases trade has increased. The percentage share of ‘visible’ trade nonetheless, has declined from as much as 80% for the Windward Anglophone Caribbean in the 1950s, to around 53% of trade, by 1990. The value of overall Caribbean ‘visible’ exports during the periods from
1934, and in some cases 1945 to 1990 have been quite erratic. In 1990, Trinidad and Tobago had the highest percentage of total imports from the EU (see Table 4-2 and 4-3), about 30.4% and 15.9% respectively.

### TABLE 4-2
EU SHARE OF TRADE WITH SELECTED CARIBBEAN COUNTRIES
PERCENTAGE OF EACH COUNTRY'S TOTAL IMPORTS

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>1980</th>
<th>1989</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUBA</td>
<td>14.5</td>
<td>23</td>
<td>30.4</td>
</tr>
<tr>
<td>DOMINICAN REPUBLIC</td>
<td>10.4</td>
<td>11.5</td>
<td>11.2</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>11.4</td>
<td>12.6</td>
<td>12.3</td>
</tr>
<tr>
<td>TRINIDAD AND TOBAGO</td>
<td>14.3</td>
<td>15.6</td>
<td>15.9</td>
</tr>
<tr>
<td>NETHERLANDS ANTILLES</td>
<td>4.0</td>
<td>17.3</td>
<td>15.3</td>
</tr>
</tbody>
</table>

Source: Eurostats 1992

### TABLE 4-3
EU SHARE OF TRADE WITH SELECTED CARIBBEAN COUNTRIES
PERCENTAGE OF EACH COUNTRY'S TOTAL EXPORTS

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>1980</th>
<th>1989</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUBA</td>
<td>10.2</td>
<td>23.1</td>
<td>22.2</td>
</tr>
<tr>
<td>DOMINICAN REPUBLIC</td>
<td>10.2</td>
<td>13.6</td>
<td>14.1</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>25.3</td>
<td>29.6</td>
<td>24.8</td>
</tr>
<tr>
<td>TRINIDAD AND TOBAGO</td>
<td>12.3</td>
<td>9.3</td>
<td>8.8</td>
</tr>
<tr>
<td>NETHERLANDS ANTILLES</td>
<td>13.6</td>
<td>13.5</td>
<td>16.6</td>
</tr>
</tbody>
</table>

Source: Eurostats 1992
Trade in the earlier part of the century remained predominantly in exports of sugar to Western Europe, and imports to the Caribbean of consumer goods. Over two (2.23) million tonnes (raw value) of sugar were exported to Western Europe in 1939, increasing slightly to 2.3 million in 1948, and in 1950 the tonnage exported was 2.54 million. A decade later in 1960, sugar exports declined to only 1.22 million tonnes, and by 1970 only 581 thousand tonnes were exported. The 1970s and 1980s were periods of change for the region, when most islands diversified away from sugar towards bananas and services. Therefore, in 1980 only 296,277 tonnes of sugar was exported to the EU, but exports rose considerably in 1990 to 409,783 tonnes. Exports to the EU in the 1990s and beyond will be predominantly services, (tourism services and off-shore finances). A few commodities will remain as part of the export package to the EU, but their potential as money earners will be negligible. As a result of increases in tourism, total imports will rise (Bryden 1974, Matheison and Wall 1992, Momsen 1986), if the current agronomic organisation remains. The trade balances with the EU will continue to be a deficit (Baretje 1987).

In 1958 the Caribbean exported an estimated US$17.28 million to Western Europe, increasing during the 1960s, to US$114.4 million in 1966 (see Table 4-4). During this period, the balance of trade deficit with Western Europe was approximately US$4.7 million. The trade balance improved in 1966, to a surplus of US$29.9 million, but exports declined from the latter half of the 1960s to 1977. In 1968, total exports increased from an estimated low of US$42.5 million, and a negative balance of US$17.3 million. A year earlier, in 1967, total exports were about US$120 million with a surplus of US$33.3 million. Nonetheless, by 1981, total exports improved, whereby exports increased to US$189.7 million, with a surplus trade balance of US$6.6 million.
**TABLE 4-4  TRADE WITH OECD - EUROPE AND THE CARIBBEAN**  
1958 - 1992 (MILLIONS) US$  

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NET EXPORTS</th>
<th>EXPORT</th>
<th>IMPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958</td>
<td>-4.7</td>
<td>17.28</td>
<td>21.98</td>
</tr>
<tr>
<td>1959</td>
<td>-5.91</td>
<td>15.29</td>
<td>21.2</td>
</tr>
<tr>
<td>1960</td>
<td>-2.77</td>
<td>17.77</td>
<td>20.54</td>
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<tr>
<td>1961</td>
<td>0.64</td>
<td>51.05</td>
<td>50.41</td>
</tr>
<tr>
<td>1962</td>
<td>2.79</td>
<td>52.99</td>
<td>50.2</td>
</tr>
<tr>
<td>1963</td>
<td>21.49</td>
<td>57.55</td>
<td>36.06</td>
</tr>
<tr>
<td>1964</td>
<td>34.2</td>
<td>112.7</td>
<td>78.5</td>
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<tr>
<td>1965</td>
<td>33.2</td>
<td>109.6</td>
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<tr>
<td>1966</td>
<td>29.9</td>
<td>114.4</td>
<td>84.5</td>
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<tr>
<td>1967</td>
<td>33.3</td>
<td>120</td>
<td>86.7</td>
</tr>
<tr>
<td>1968</td>
<td>-17.3</td>
<td>42.5</td>
<td>59.8</td>
</tr>
<tr>
<td>1969</td>
<td>-15.8</td>
<td>54.7</td>
<td>70.5</td>
</tr>
<tr>
<td>1970</td>
<td>-33.6</td>
<td>50.7</td>
<td>84.3</td>
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<tr>
<td>1971</td>
<td>-34</td>
<td>49.6</td>
<td>83.6</td>
</tr>
<tr>
<td>1972</td>
<td>-30.7</td>
<td>65.1</td>
<td>95.8</td>
</tr>
<tr>
<td>1973</td>
<td>-27.2</td>
<td>81.6</td>
<td>108.8</td>
</tr>
<tr>
<td>1974</td>
<td>-36.7</td>
<td>111.8</td>
<td>148.5</td>
</tr>
<tr>
<td>1975</td>
<td>-55.2</td>
<td>100.6</td>
<td>155.8</td>
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<tr>
<td>1976</td>
<td>-41</td>
<td>109.3</td>
<td>150.3</td>
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<td>1977</td>
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<td>1978</td>
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<td>1980</td>
<td>13.4</td>
<td>184.9</td>
<td>171.5</td>
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<td>1981</td>
<td>6.6</td>
<td>189.7</td>
<td>183.1</td>
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<tr>
<td>1982</td>
<td>17.9</td>
<td>175.5</td>
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<td>1983</td>
<td>-29.6</td>
<td>122.8</td>
<td>152.4</td>
</tr>
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<td>1984</td>
<td>-11.8</td>
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<td>85</td>
<td>128</td>
</tr>
<tr>
<td>1989</td>
<td>-45</td>
<td>103</td>
<td>148</td>
</tr>
<tr>
<td>1990</td>
<td>-47</td>
<td>113</td>
<td>160</td>
</tr>
</tbody>
</table>

Source: OECD 1951-1992
In 1987, the Caribbean trade position with the EU was unfavourable, with exports falling to a low of US$72 million, whereby net exports were a deficit of US$44 million. In 1990, total exports were US$113 million, and the balance of trade deficit was US$47 million. The foregone implies that although Caribbean trade with Western Europe has been uneven (Sutton 1991), trade with the Economic Union (EU) remains. In 1971, the entry of the UK into the EEC, resulted in the Anglophone Caribbean trading with the EU as a whole, via the Lomé Convention. It is important to point out however, that trade with the EU remains rigid, extremely partisan along pre-colonial, linguistic, and historic links. Nonetheless, except the period 1986 to 1988, increased ‘visible’ trade with the Union ensued over the last 20 years. Moreover, *sui generis* the vast majority of Caribbean trade has been with the United Kingdom, especially with reference to the sugar and banana trade, and to a lesser extent with the Netherlands. The Caribbean needs to articulate trade negotiations effectively, with non-traditional trading partners, which would reduce dependency on one market. The position of the UK however, as a main trading partner, is extremely integral to an improved Caribbean trade position within the European Union.

4.5 **INDIVIDUAL EXPORTS**

As commodity trade declined, so had the overall agricultural output of the region (Hope 1986). Some attempts have been made to increase agronomic in the Caribbean (Latimer 1985), suggesting that the problem has been recognised, but success remains minimal. The service sector (tourism) has replaced the traditional sector as the major trading sector, and as the most important foreign exchange earner. The US had increased its share of Caribbean trade during the 1980s regarding ‘visible’ trade, mostly in manufacturing. The EU’s share in receipt of manufactured goods remain marginal, largely due to the fourth Multifibre Agreement (MFA). The MFA I within the EU imposes quota entry into the EU, and a subquota system for all the member countries. These quotas considerably limit the extent to which the import of clothing and textile of each country is allowed (Davenport 1991). Although subquotas within
the member countries are likely to be abolished in subsequent MFAs, the EU quota will remain and the entry of Caribbean clothing will remain restricted. In addition, its share of 'invisible trade' is formidable, pertaining to tourism and off-shore financial services. Indeed, tourism services have become the major trade with the EU, and it is within this economic sector that the potential for trade with the EU is likely to grow.

Regional share of trade has been increasing overall since the 1970s, and in the cases of Barbados (15.64%), the Netherlands Antilles (3.28%), the Dominican Republic (1.15%), Trinidad and Tobago (1.08%) and Jamaica (1.07%), and evidences of regional trade has been apparent since 1960s. Regional trade in both commodity and services are likely to continue to increase in the future, and these increases are likely to occur mostly because of the world's trade trend. Developing countries' share of world commodity trade has been declining, and has been increasingly marginalised (Davenport 1991). Regional trade will gain from the increased mobility of the factors of production. The sharing of technology, increases in tertiary education, and rising incomes will produce regional flows of labour and capital. The formation of the EU, and the reformation and renegotiations of trade within the Caribbean and the Western Europe have pointed out the need for greater Caribbean cooperation and integration (Sutton 1991). Caribbean changes in policy and economics, through an integrated approach, should be most beneficial to the region's tourism sectors. It has the greatest potential through the 'trickle-down effect', to impact positively the development of the region.

Antigua and Barbuda have relatively little visible trade, and in 1987 its exports (87%) were in services, mostly tourism services (Charles 1994). Principally it exported sugar a priori to World War II (WWII), and almost all of its foreign exports went to the UK market. A combination of low world prices after the wars, and adverse weather conditions resulted in drastic declines in total exports. The United Nations (UN) documented in 1946 that, (see Table 4-5a) total exports were $1.2 million,
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which expanded subsequently to US$3.03 million, in 1950. In 1960, total exports declined to US$2.31 million, but by 1968 exports increased to US$8.02 million. In two years, a dramatic increase was realised in 1970, by 170%, to US$13.63 million, largely due to production of the oil refining plant. Food exports were US$83,000, manufacturing were US$186,000 and minerals exports valued at S$10,365,000. Low food production has been one major criticism of the Antiguan and Barbuda economy, and indeed more needs to be done to redress its weak agricultural base. Nonetheless, the gains in food production have been impressive, with exports increases of 510%, from 1970 to 1987, valued at US$1.01 million.

| TABLE 4-5a | ANTIQUA AND BARBUDA |
| EXports BY COMMODITIES (F.O.B) |
| standard International Trade classification |
| 000's $US |

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>1200</td>
<td>2810</td>
<td>8020</td>
<td>13632</td>
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<tr>
<td>FOOD</td>
<td>83</td>
<td>198</td>
<td>1009</td>
<td></td>
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<tr>
<td>BEV/TOBACCO</td>
<td>38</td>
<td>135</td>
<td>356</td>
<td></td>
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<tr>
<td>CRUDE MATS. excl fuels</td>
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<td>84</td>
<td>82</td>
<td></td>
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<td>MINERALS</td>
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<td>10365</td>
<td>1838</td>
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<td>CHEMICALS</td>
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<td>101</td>
<td>3468</td>
<td></td>
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<td>1889</td>
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<td>MANUFACTURING</td>
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<td>320</td>
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<td></td>
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<td>%EU</td>
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<td>15</td>
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<tr>
<td>%UK</td>
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<td>1.8</td>
<td>9</td>
<td></td>
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<tr>
<td>%US</td>
<td>6.77</td>
<td>26.8</td>
<td>15.4</td>
<td></td>
</tr>
<tr>
<td>%REG</td>
<td>ND</td>
<td>5.6</td>
<td>19.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: UN 1960-1990
The percentage of exports to the EU was 8.04% in 1960, with 3.1% going to the UK when cane sugar was produced. The US share of trade with Antigua and Barbuda was about 6.77% for the same period, which leaves 85.16% unaccounted for, presumably most of which might be regional trade. In 1970, only 1.9%, or about the value of US$250,000, was exported to the EU. Almost all of the goods exported to the EU went to the UK market (1.8%), compared with over a quarter percentage of exports (26.8%) going to the US, and 5.6% which was exported regionally. The 1987 EU share of total exports rose, while the US share evened out, with the US falling to 15.4%, and the EU's share increased to 15%, of which 9% went to the UK. In 1987, regional trade increases had the most impressive growth area, with an increase of 19.6% over 17 years. In 1987, total exports increased less sharply by 143%, to US$19,448,000, which indicated that considerable gains in food exports to US$1.01 million. Manufacturing increased to US$8.030 million, by 41.3% of total exports, chemicals increased from US$23,000, in 1968, and US$101,000, in 1970, to US$3.47 million, which represented 17.8% of all exports. However, mineral production declined to US$1.84 million, because of the fall off in crude petroleum refining, due to the decline in Trinidad and Tobago's crude oil output.

Chronic overall balance of payments exists in Antigua and Barbuda, thus in 1985, the current account deficit was US$23.10 million, aggravated the trade balance with the EU, a deficit of US$19.38 million, after increasing from a low of US$29,000 in 1950 (see Table 4-5b). The main explanatory factor of balance of payment difficulties in the Caribbean in general, and particularly in Antigua and Barbuda, are high imports and relatively low levels of exports. Imports in Antigua and Barbuda have escalated at a much faster rate than exports (from US$2.37 million in 1950 to US$23.1 million in 1985). The aforementioned shows that, trade with the EU has been increasing, and ceteris paribus this trading relationship, especially with the United Kingdom, is likely to continue.
Barbados has always been a leading exporter in the region, hence it is not surprising that, in 1934 the value of exports was US$72.75 million, which increased to US$51.19 million by 1960, and US$213.40 million by 1990 (see Table 4-6a). A significant portion of export trade up to 1960 was of a single commodity - sugar, which represented 65.6% of total exports, most of which were exported to the EU market (61.66%). The UK has been the single largest purchaser of export goods, some 61.45% of total exports in 1960 compared with only 3.01% to the US, although regional exports were 15.54%. In 1970, there remained a heavy concentration of trade in sugar (39.5%), although there was a noted decrease in sugar export from a decade ago. Nonetheless, sugar exports are significantly more than machine/transportation/equipment, which is the second largest export (12.18%) valued at US$4.76 million, from US$7,020 a decade earlier. The EU share of exports declined to 29.4%, of which 26.9% went to the UK, not at all a surprising shortfall given the 26.1% points decline in cane sugar exports. Export trade with the US increased however, to 30.2% in 1970. Manufacturing exports were valued at only
US$78,840 or 0.36% of total exports in 1960, but by 1970, exports had increased to US$1,708,000, or 4.38% of total exports. The increase in manufacturing is possible the explanation for the increase in exports to the US.

**TABLE 4-6a**

<table>
<thead>
<tr>
<th>BARBADOS</th>
<th>SELECTED EXPORTS by COMMODITIES (F.O.B)</th>
</tr>
</thead>
<tbody>
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<td>standard International Trade classification</td>
<td></td>
</tr>
<tr>
<td>$000s $US</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
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<td>BEV/TOBACCO</td>
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</tr>
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<td>CHEMICALS</td>
<td>157.68</td>
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<tr>
<td>PETROLEUM</td>
<td>15.12</td>
</tr>
<tr>
<td>MANUFACTURING</td>
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</tr>
<tr>
<td>MACH/EQUIP/TRSP</td>
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</tr>
<tr>
<td>% EU</td>
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<td>%UK</td>
<td>61.45</td>
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<tr>
<td>%US</td>
<td>3.01</td>
</tr>
<tr>
<td>%REG</td>
<td>15.64</td>
</tr>
</tbody>
</table>

Source: UN 1960-1990

**TABLE 4-6b**

| TRADE WITH OECD - EUROPE AND BARBADOS |
| 1950 - 1991 millions US$ |
| YEAR | NET EXPORT | EXPORTS | IMPORTS |
| 1950 | -5.98 | 14.93 | 20.91 |
| 1970 | -33.78 | 15.5 | 49.28 |
| 1975 | -36.33 | 31.63 | 67.96 |
| 1980 | -76.45 | 31.44 | 107.89 |
| 1985 | -75.97 | 24.19 | 100.16 |
| 1990 | -91.13 | 42.17 | 133.3 |
| 1991 | -91.18 | 33.28 | 124.46 |

Source: UN 1960-1990

OECD 1970 -1990
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The following two decades were periods of rapid export expansion, whereby in 1980, total exports were valued at US$226.57 million. Sugar rebounded to US$54.41 million or 24.02% of total exports, retaining its position as Barbados' largest single export commodity. The EU received only 16% of total exports however, of which 7.3% was purchased by the UK, compared with 33.6% to the US, and 25.17% to the Caribbean. In 1980, all of the industrial sector exports grew by enormous proportions except beverage and tobacco. In 1990, there was a 75% decline in cane sugar production, and a 349% decline in crude materials export. The percentage of EU exports increased by 3.8% from the 1980 figure, to 19.8%, almost all (18.3%) of which went to the UK. In 1990, the major decline of US purchases was significant, whereby only 13% of exports went to the US. Caribbean regional trade with Barbados continued to increase, by 27.7% of total exports. The decline in exports to the US followed a small increase to the EU (UK), although the EU share of exports is far from the high levels of the earlier years (before the 1960s).

The decline in sugar prices on the world market, would also account for the deterioration of Barbados terms of 'visible' trade with the EU over the period from the 1970 to 1990. Yet, as 'visible' trade has fallen with the EU (UK), Barbados' 'invisible' trade (tourism) has risen over the same period. The trade position of Barbados with the EU has been a deficit since 1970, resulting in part from the significant decreases in exports (see Table 4-6b). In 1970, the trade deficit was approximately US$33.78 million, and by 1990, it had expanded almost threefold to US$91.13 million. The United Kingdom (UK) continues to be the main recipient of Barbados exports (in the EU), and its continued trade with Barbados, is key within the EU framework.

In 1946, Bermuda exported only US$620,000 worth of goods, but by 1950 exports increased to US$2.30 million, and in 1971, exports increased by approximately 382%, to US$87.75 million (see Table 4-7a). Chemicals were overwhelmingly the largest share of exports at US$75.46 million, seconded by US$4.93 million for food
exports. The EU share of exports in 1971 was 59.8%, compared with 1.75% to the US, and 0.3% to the Caribbean region. The largest EU share was the UK with 23.4%, followed by 15.05% to the Netherlands, and 10.4% to France).

### TABLE 4-7a

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<thead>
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<tr>
<td>TOTAL</td>
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<td>4933</td>
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<td>16302</td>
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<td>1037</td>
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<td>1992 TOTAL</td>
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<tr>
<td>%US</td>
<td>1.75</td>
<td>18.2</td>
<td>62.3</td>
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<tr>
<td>%FR</td>
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<td>0</td>
<td>0</td>
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<td></td>
</tr>
<tr>
<td>%GFR</td>
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<td>0</td>
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</tr>
<tr>
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<td>4.1</td>
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<tr>
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<td>0</td>
<td>3</td>
<td>0.7</td>
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<td></td>
</tr>
</tbody>
</table>

Source: UN 1960-1990.
Consequently in 1980, total exports fell to US$36.73 million, mostly due to a fivefold reduction in chemicals export. Although mineral fuels increased from US$3.20 million, to US$16.30 million, it was not adequate to maintain the export levels of 1971, and additionally, food exports also fell to US$202,000. The share of EU exports from Bermuda totalled only 6.2% in 1980, of which 3.3% went to the UK, and 2.4% to the Netherlands. In contrast to 1971 however, US share of trade increased over 17%, to 18.2%, followed by an increase in manufacturing of 152%, and regional exports increases of 3%. The 1990 figure for exports increased by 163%, and another 144% in 1992, to US$84.26 million. The EU exports share increased by 27%, of which 20.6% went to the UK, and 4.1% to Italy. The US share expanded most dramatically to 62.3%, an increase of 44.1%, compared with a 20.8% rise for the EU. Still, in 1992, regional exports declined by 2.3%, to 0.7%.

During the 1970s, trade increases with the US seemed to follow a similar trend throughout the region, as it was from about this time that most islands added various manufacturing processing as an economic organisation. Manufacturing became an added economic activity in the Caribbean, largely because of the US international view of the division of labour, and the rise in Multinational Corporations (MNCs). A notable trade deficit remained (see Table 4-7b), from 1950 to 1990, but it has been uneven, declining from US$17.40 million in 1950, to a deficit of US$13.14 million by 1990. In 1992, the balance of trade deficit with the EU increased to a high of US$42.25 million. In that same year (1992), total imports from the EU were reduced from US$72.84 million in 1990, to US$65.02, while exports also decreased, from US$59.7 million to US$22.77 million. The reasons for the decline in exports are not apparent, but one possibility could be the decline in tourism arrivals. Tourism arrivals declined from 432.7 thousands arrivals in 1990, to 385.3 thousands, in 1991, and 373.5 thousands in 1992. Reasons for the decline are probably due to the deliberate policy of the government to restrict total arrivals (McElroy and de Albuquerque 1992).
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Table 4-7b TRADE WITH OECD - EUROPE AND BERMUDA
1950 - 1992 millions US$

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NET EXPORTS</th>
<th>EXPORTS</th>
<th>IMPORTS</th>
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</thead>
<tbody>
<tr>
<td>1950</td>
<td>-17.4</td>
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<tr>
<td>1971</td>
<td>-4.99</td>
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<td>1975</td>
<td>-46.48</td>
<td>7.18</td>
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<td>1980</td>
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<td>1990</td>
<td>-13.14</td>
<td>59.7</td>
<td>72.84</td>
</tr>
<tr>
<td>1992</td>
<td>-42.25</td>
<td>22.77</td>
<td>65.02</td>
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</tbody>
</table>

Source: UN 1960-1990
OECD 1970-1990

Cuba had a relatively thriving manufacturing and industrial output (see Table 4-8a), along with its traditional agricultural exports of sugar and tobacco. In 1934, total exports were substantial at US$670.98 million, but local political problems and world economic changes led to deterioration in sugar prices. Total exports were maintained, but very little gains were made in 1960, where total exports were US$671.99 million. Exports representing 42% went to the EU, and 53.2% to the US, before the missile crisis with the US in 1962, and the subsequent US embargo. Regional exports were, in 1960, 3.37% of total exports. A decade later in 1970, total exports rose to US$1.05 billion, with 10.72% going to the EU market, of which 4.66% was purchased by the former East Germany. There were no reported regional exports.
### Table 4-8a: Cuba

**Exports by Commodities (F.O.B)**

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<td>590640</td>
<td>568771.6</td>
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<tr>
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<td>4317557</td>
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<td>Sugar</td>
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<td>833104</td>
<td>4634129</td>
<td>3959231</td>
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<td>Bev./Tobacco</td>
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<td>35084</td>
<td>35128</td>
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<td>%UK</td>
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Source: UN 1960-1990

### Table 3-8b: Trade with OECD - Europe and Cuba

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<td>Net Exports</td>
<td>1.17</td>
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<td>51.88</td>
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<td>Exports</td>
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<td>386.94</td>
<td>554.08</td>
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<td>Imports</td>
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<td>285.25</td>
<td>922.34</td>
<td>502.2</td>
<td>594.51</td>
<td>480.06</td>
</tr>
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</table>

Source: UN 1960-1990

OECD 1970-1990

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Unlike a decade earlier, exports were now concentrated in agricultural products (sugar and tobacco), although crude materials increased from US$11.93 million to US$171.98 million. Food exports increased from US$552.64 million in 1960, to US$833.10 million in 1970, with sugar increasing from US$833.10 million to US$4.63 billion. However, tobacco increased only marginally, from US$35.08 million to US$35.13 million. Considerable gains in exports were realised over the following decade, and in 1980, exports totalled US$5.541 billion, concentrated mainly in agricultural goods.

In 1950, Cuba's balance of trade with the EU was a surplus of US$1.16 million (see Table 4-8b). The trade balance however, deteriorated by 1970, to a deficit of US$173.28 million, and US$535.4 million in 1975, but declined by 1989, to US$42.34 million. The huge balance of trade deficit in 1975, was mainly due to a faster rise in imports, than an equal or larger share rise in exports. In 1980, it was the consequent fall off of imports that had led to the improved balance of trade situation (surplus US$51.88 million), although there had also been some decline in exports to the EU. Nonetheless in 1989, the balance of trade with Cuba and the EU worsened to a deficit of US$42.34 million.

In 1940, Dominica exported only US$242,110 worth of goods, however by 1960, total exports were valued at US$3.92 million. Exports were mainly food exports, with 82% going to Western Europe (the UK), with none to the US. In 1974, total exports were valued at US$10.47 million, and similar to 1960, the bulk of goods was in food, but bananas had replaced sugar as the monocrop. The EU bought 80.5% of total exports, which went to the UK, compared with 1.9% to the US, and 13% to the Caribbean Region (see 4-9a). EU trade in bananas*from the Windward Islands have been the fastest growth area, 'where exports from St. Lucia and St. Vincent have quadrupled between 1980 and 1988' (Davenport 1991:46).
## TABLE 3-9a DOMINICA
EXPORTS by COMMODITIES (F.O.B)
Standard International Trade classification
000'S $US

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%EU | 82 | 80.5 | 34.8 | 57.9 |
%UK | 82 | 80 | 34.7 | 52.1 |
%US | 0 | 1.9 | 3.9 | 7.8 |
%REG | 64.09 | 33.1(1989) |

Source: UN 1960-1990
OECD 1970-1990

## TABLE 3-9b TRADE WITH OECD - EUROPE AND DOMINICA
1950 - 1990 millions US$

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<tr>
<th>YEAR</th>
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<th>EXPORTS</th>
<th>IMPORTS</th>
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<td>1950</td>
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<tr>
<td>1970</td>
<td>-10.64</td>
<td>6.37</td>
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<td>1980</td>
<td>-102.4</td>
<td>26.3</td>
<td>128.7</td>
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<td>1985</td>
<td>13.78</td>
<td>143.18</td>
<td>129.4</td>
</tr>
<tr>
<td>1990</td>
<td>4.84</td>
<td>31.31</td>
<td>26.47</td>
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Source: UN 1960-1990
OECD 1970-1990
In 1980, six years later, the percentage of Dominica's exports to the EU fell to 34.8%, of which the UK purchased 34.7%, compared with the US share of 3.9%, and the regional share was 64.9%. In 1980, total exports contracted to US$9.74 million, but by 1990 exports increased to US$55.03 million, with an increase in exports to the EU of 57.9%, mainly the UK (52.1%). Regional share of Dominica exports had declined to 33.1 of total exports, but there was an increase to the US of 7.8%. Presently, the major export commodity to the EU are bananas, manufacturing products are exported to the US, and food products are the main exports to the region.

In 1990, manufacturing increased from nil in 1960, to US$3.44 million. Manufacturing in Dominica, as most of the Caribbean, is expected to grow, mostly due to US companies installation of assembly plants. Still, the processing of agro-industrial products has been increasing, and could be a growth area. Agro-industrial production needs to be encouraged and harnessed, as potential exists for inter-sectoral linkages with tourism. There has been steady growth however, in the chemicals export sector from US$200,000, in 1960, to US$13.28 million, by 1990. Dominica remains overwhelmingly agricultural base, the concentration has been in food exports, although gains in chemical production have been significant. The balance of trade with the EU was a deficit of US$1.14 million, in 1950, increasing to a deficit of US$19.6 million, by 1980 (see Table 4-9b). In 1990 however, the trade balance with the EU improved to a trade surplus of US$4.84 million.

The Dominican Republic had, in 1934, substantial amounts of exports, which were valued at US$13.70 million, and by 1950, exports had increased to US$79.86 million. In 1960, exports totalled US$195.35 million were concentrated mostly in coffee (US$24.53m) and cocoa (US$22.34m), and crude materials worth US$13.84 million (see Table 4-10a). The EU purchased 25.95% of total exports, of which 12.34% went to the UK and 5.02% to the Netherlands; in contrast to 62.74% to the US, and negligible amounts to the Caribbean.
### TABLE 4-10a

DOMINICAN REPUBLIC

EXPORTS by COMMODITIES (F.O.B)
standard International Trade classification

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<td>77214</td>
<td>46626</td>
<td>46626</td>
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<tr>
<td>COCOA</td>
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<td>19171</td>
<td>53790</td>
<td>43717</td>
<td>43717</td>
<td>43717</td>
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<tr>
<td>TOBACCO &amp; BEV</td>
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<td>0</td>
<td>306632</td>
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</table>

%EU 25.95 1.2 11.5 19.6
%NA  5.02 3.9 6.9 15.1
%UK 12.34 0 2.4 1.7
%BELGIUM LUX 0 4.39 3 3.1
%US 62.74 81.31 63.4 66.7
%REG 1.15 0.5 3.35 1.4

Source: UN 1960-1990

### TABLE 4-10b

TRADE WITH OECD - EUROPE AND THE DOMINICAN REPUBLIC

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<tr>
<th>YEAR</th>
<th>NET EXPORTS</th>
<th>EXPORTS</th>
<th>IMPORTS</th>
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<tbody>
<tr>
<td>1950</td>
<td>0.4</td>
<td>0.8</td>
<td>0.4</td>
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<tr>
<td>1970</td>
<td>-33.79</td>
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<td>128.94</td>
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<tr>
<td>1990</td>
<td>-1058.5</td>
<td>734.5</td>
<td>1793</td>
</tr>
</tbody>
</table>

Source: UN 1960-1990

OECD 1970 -1990

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The large share of US purchases of total exports, result from the long historical interest that the US has had with the Dominican Republic and Cuba. In 1970, total exports to the US were as high as 83.31% of total exports, at a time when the EU’s share was only 10.8%, and the Caribbean region’s was only 0.5% of total exports.

In 1970, food exports, especially sugar (US$103.92 million) and coffee (US$48.95 million) were considerable large parts of total exports. Cocoa and tobacco/beverages were also important, but whereas the value export of cocoa decreased from a decade ago by 86%, tobacco/beverage increased over twofold. Total exports increased by 328% in 1980, from 1970, whereas the US’ share fell to 1960 levels, to 63.4%. While, the EU share increased to 11.5%, and 3.4% to the Caribbean region. Most of the EU’s share were purchased by the Netherlands (6.9%), followed by Belgium/Luxembourg (3%). Food exports were the largest, with concentration mainly in cane sugar (US$307.54m), coffee (US$77.21m) and cocoa (US$53.79m).

It is important to point out that for the first decade, manufacturing had become an important sector within the Dominican economy, so much so that in 1980, total exports rose to US$119.82 million, from US$541,000, in 1970. This large increase in manufacturing is due to US investment in Caribbean manufacturing in general, and specifically in Latin America. Total exports increased by 104.35% in 1989, but not by as large an increment as a decade earlier. Exports to the EU were 19.6%, of which the Netherlands (15.1%) was the major purchaser, compared with two-thirds to the US market. Regional trade declined by 2% from 1980, to 1.4% of total exports. Traditionally, trade between the Dominican Republic and the region has been weak, similar to the weak trade links with Cuba and other Latin America countries in the region. The weakening trade is due to a priori rivalry of the former colonial powers, and present mutual suspicion and ignorance (Grugel 1991). The reorganisation of world trade and the formation of regional trading blocs will, in time, circumvent the obstacles that remain to increases in regional trade.
Chapter 4: The European Union and its Implications for the Caribbean

The Dominican Republic’s balance of trade with the EU in 1950 was a surplus US$0.4 million, whereas in 1970, the balance of trade deficit was US$33.79 million (see Table 4-10b). Nonetheless five years later in 1975, the trade deficit improved to a surplus of US$117.42. The trade balance deteriorated to a deficit of US$44.87 by 1980 however, when total exports were valued US$703.91 million. The corresponding share of imports for the same periods increased only marginally, from US$56.98 million to US$84.42 million. In 1990, the trade balance reached a deficit high of US$1,058.5 million, when total exports were US$734.5 million, and imports totalled US$1,793 million. Overall, trade between the EU and the Dominican Republic has never been robust, but some trade has maintained, albeit irregular in pattern.

Grenada’s trade history, as far as the UN records are concern, indicate a trade origin from 1970s. Yet history can vouch for trade from 1674, when France annexed Grenada, and in 1763, when it was ceded to Britain. As in all of the Caribbean islands, agricultural products, chiefly sugar, were the main goods. In 1991, agriculture remains the major industry, providing about 20% of GDP, and 85% of total export earnings. The EU, mainly the UK, remains the primary purchaser of total exports, with a share of 71.5% and 33.3% respectively, in 1973, rising to 77.2% for the EU, and 43.9% for the UK, in 1980 (see Table 4-11a). The Netherlands is the second most important purchaser of Grenadian exports, purchasing in 1990, 19.6% of Grenadian exports. In 1970, total exports were only US$12,100, rising sharply to US$16.86 million by 1980, and US$108.94 million, in 1990.

In 1990, total exports were mainly food exports, bananas and spices (US$276.63m), but crude materials (US$24.42m) were also considerable. The US’ share of exports rose in 1990, to 16.2%, from 3.2%, in 1980, followed by an increase in manufacturing exports, from US$1.27 million, to US$36.67 million. At the same time, the EU’s share of trade fell to 46.6%, including a large reduction to the UK (20.3%).
Grenada’s increase in exports, based on the limited documentation, seemed to be as a result of its diversification away from a sole reliance on agriculture. The value of food exports increased from US$15.55 million, in 1980, to US$108.94 million, in 1990. Grenada, as most of the Caribbean islands, have had for the most part, balances of payment deficits with the EU (see Table 4-11b). Nonetheless, in 1970, there was a small trade surplus of US$1.46 million, following a deficit, in 1990, of US$10.63 million.
TABLE 4-11b TRADE WITH OECD - EUROPE AND GRENADA
1975 - 1991 millions US$

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<tr>
<th>YEAR</th>
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<th>IMPORTS</th>
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<td>1975</td>
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<td>10.39</td>
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<tr>
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<td>1.23</td>
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<td>6.79</td>
<td>23.11</td>
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</table>

Source: UN 1960-1990
OECD 1970-1990

Jamaica has had large quantities of commodity trade with the EU, and in 1934, total trade was US$1,208,4000 (see Table 4-12a). The trade figure increased to US$41.87 million in 1950, and by 1960, total trade increased by 285%, to US$146.740 million. In 1960, the EU share of total trade was 44.92%, with 31.53% going to the UK alone, and 0.6% to the Netherlands. Jamaica was the only Anglophone Caribbean island that had over a quarter (26.43%) of its trade with the US in 1960, most of which were of bananas. The banana boats became the vehicle whereby earlier UK and US tourists were transported to Jamaica, the forerunner of the jet age and mass tourism. The bauxite and alumina industries had become by 1960, a major export sector, valued at US$4.71 million for bauxite, and US$6.32 million for alumina. Crude materials valued at US$10.645 million, held the largest share of export goods, and food exports were valued at US$8.72 million, which mostly included cane sugar (US$5.16 million) and bananas (US$1.83 million). Total exports increased by 1970, to US$333.25 million, with the largest value export commodity being bauxite/alumina.
(US$184,67 million) and crude materials (US$187,720). The majority of exports were sold to the US (53.62%), representing a doubling of its share of the 1960 figure.

### TABLE 4-12a

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Source: UN 1960-1990
The EU’s share declined to 29.37%, of which the UK’s share was more than half (16.58%), which represented a decline of about 50%, from 1960. Although, Jamaica exports increased to US$964.57 million, and US$1.14 million, in 1980 and 1990 respectively, the US share declined to 37.4% and 29.8%. The percentage share of EU trade declined again in 1980, to 20.3%, with a marginal increase in the UK’s share (2.84%). Moreover in 1990, the EU purchased 25.7% (an increase of 5.4% from 1980), with small decreases in the UK’s (to 15.2%), and the Netherlands’ (to 9.6%). The main export commodities remained much the same as it had in 1970, with substantial gains in bauxite and alumina exports. Increases in bauxite and alumina exports were almost fourfold, from the year 1970 to 1980, and maintained their export value to 1990. There was a noticeable increase in the export of manufacturing goods from US$13.89 million, in 1970, to US$37.18 million, in 1980 (270%), and to US$119.80 million, in 1990 (322%).

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<th>IMPORTS</th>
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<td>137.76</td>
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<td>1990</td>
<td>91.6</td>
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<tr>
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<td>81.39</td>
<td>245.85</td>
<td>164.46</td>
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Source: UN 1960-1990
OECD 1970-1990
In 1950, Jamaica's balance of trade with the EU was a deficit of US$2.7 million, and in 1970, it was a deficit of US$14.96 million (see Table 4-12b). In 1980, there was a trade surplus of US$217.45 million, and in 1990, a surplus of US$91.6 million. In 1991, the trade surplus improved to US$113.23 million, but declined in 1992, to US$81.39 million. Notwithstanding the trade surplus with the EU, Jamaica had, from 1982, a negative current account balance. In 1982, the current account balance was US$388.4 million, and a negative balance in 1991, it was US$131.6 million. Jamaica's position is not unique however, as all of the Caribbean islands suffer from chronic balance of payments deficits and current account imbalances.

In 1946, Martinique exported US$3.06 million, and by 1962, the value of total exports increased to US$32.45 million, mainly agriculture goods, bananas (US$14.74 million) and sugar (US$10.32 million) (see Table 4-13a). In 1970, total exports fell by 92.56%, mostly because of the decline in the total value of sugar to US$2.48 million. In 1970, economic activities were more diverse, less reliant on agriculture, with some substantial increases in manufacturing exports (US$1.31m). In 1962, the majority share of total trade had been with the EU (89.44%), almost all of which went to France (89.4%), and by 1970, export values to the EU increased slightly (92.9%), purchased mostly by France (90.4%). The 1980 export figure increased dramatically to US$116,86 million, whereby exports were concentrated largely in minerals (US$54.71 million). Food exports (US$31.01 million) continued to dominate the Martiniquian economy, concentrated mostly in bananas (US$24.43 million), similarly to the Anglophone Windward islands. Tobacco/beverages (US$4.93 million) are also a significant export. Manufacturing increased to US$6.60 million, by over 500%, from 1970 and 1980. The US export share was only 3%, while a share of 44.3% went to the EU, mainly France (39.4%), although this share represents a reductio of over half the EU's share, (France's share), from 1970.
In 1990, total exports increased again, more than doubling to US$276.11 million, with agricultural exports increasing significantly to US$133.98 million. Increases are noted in all of the economic sectors, except minerals exports, that fell to US$43.96 million. In 1970, beverage and tobacco rose to US$33.24 million, and machine, equipment and transportation increased, to US$31.37 million, from US$5.20 million, while manufacturing increased to US$21.88 million. In 1990, the share of EU trade rose to 67.7%, almost all of which went to France (61.7%), compared with the US' share.
reduction to 0.3% of trade. It is not surprising that Martinique has maintained a huge balance of trade deficit (see Table 4-13b) with the EU (France), given its political and economic relationship with the metropolis. The deficit increased from US$4.16 million, in 1950, to a staggering US$498.18 million, in 1980, and US$1,197.17 million, in 1990. However, given that Martinique is a ‘département’ or ‘région’ of France, its balance of trade deficit is of no more importance than would a balance of trade deficit be with Lyons or Strasbourg.

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Source: UN 1960-1990
OECD 1970-1990

In 1934, the Netherlands Antilles’ visible trade was US$85.3 million, improving to US$549.6 million in 1950, and US$657.6 million, in 1960 (see Table 4-14a). Food exports were only $110,000, whereas (the largest total) mineral fuels were (US$651,210), and manufacturing was US$1,900. The EU’s share of total exports was 19%, of which 3.49% went to the Netherlands, and 8.43% went to the UK, in contrast with 34.26% to the US.
In 1970, the EU’s share of exports declined to 8.7%, followed by a sharp increase to the US (57.9%). Total exports were US$675.54 million, most of which were mineral fuels (US$634.34 million), with no recorded exports of food. In 1979, exports were at a high of US$3.96 billion, mostly of mineral fuels, with a slight increase in the EU’s share to 9.1%, and a decrease of 51.3% for the US. In 1990, total exports contracted to US$1.8 billion, solely because of the mineral fuels shortfall. Food exports went from nil in 1979, to US$3.71 million by 1990, and
beverage/tobacco exports increased to US$5.65 million, and manufacturing to US$14.90 million. In 1990, the economies were more diversified than previously, ex ante, relying heavily on mineral fuel refining. The EU’s share declined by 5%, and the US fell to 33.4% (pre 1960 rates), although regional trade increased to 26.2% for the same period.

In 1950, the trade balance with Western Europe was US$49.29 million, and in 1970, it was a deficit of US$36.24 million (see Table 4-14b). In 1980, the balance of trade position improved tremendously, to a surplus US$426.61 million, mainly because of the increases in petroleum exports to Europe. In 1990 however, the balance of trade position deteriorated to a deficit of US$122.95 million, with only slight improvements.
in 1991, to US$106.84 million. The value of total exports had declined by 454% from 1979 to 1980, due to the 444% decline in mineral fuel exports, without a comparable increase in exports from other sectors. The Netherlands Antilles need to diversify its export sector, if the balance of trade position is to be improved. The main exports have been of mineral fuels, whereby Venezuelan crude was refined, since 1917, due to Curacao's strategic position in the gulf off Venezuela. Today, technological changes have resulted in refining on the Venezuelan mainland, as tankers can now retrieve barrels, through the gulf off Venezuela, which could be one explanation for the fall off in crude refining in Curacao. Additionally, the price per barrel of oil on the world market has stabilised to about US$18, from its high of over US$40 a barrel during the 1970s oil crisis. The other Dutch islands of Aruba, Bonaire, Saba, St. Eustatius and St. Maarten are service based (tourism), hence exports in commodity goods are negligible.

In 1947, St. Kitts and Nevis exported US$1.27 million worth of goods (mostly sugar) to the EU, largely to the UK. About a decade later in 1958, total exports increased fourfold, valued at US$4.97 million, of which US$4.44 million were food exports, valued at US$4.29 million, specifically for sugar (see Table 4-15a). The EU purchased 82% of total exports, all of which went to the UK, compared with an export share of only 2% to the US, and the remainder (16%) was purchased by the region. In 1970, total exports were valued at US$1.81 million, and the value of exports increased steadily to US$116.86 million, in 1980, most of which were food exports (US$31.01 million). In 1988, food exports decreased to US$10.23, while the value of sugar exports increased to US$8.79 million. In 1980, machine, transportation, equipment exports were significant at US$7.81 million, and increased in 1988, to US$9.38 million. In 1980, crude materials exports were valued at US$347,000, and by 1988, the value of total exports had increased to US$1.13 million. Additionally, there was a small export sector of manufacturing valued at only US$554,000, although by 1988, the value increased to US$7.11 million. In 1980, the US' share of total trade (US$274.45 million) increased to 55%, and in
1988, to 57.8%, in contrast to the EU’s share declined to 22.1% in 1980, and improved only slightly to 22.3%, in 1988. In 1988, regional trade increased to 13%, from 8%, in 1980. St. Kitts and Nevis export performance is commendable given the size of the islands, whereby some attempts have been made at diversifying away from traditional (sugar) exports.

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%EU          | 82               | 22.1             | 22.3             |
%UK          | 82               | 22.1             | 21.8             |
%US          | 2                | 55               | 57.8             |
%REG         |                  | 15.7             | 13               |

Source: UN 1960-1990
St. Kitts and Nevis's trade balance with the EU has been a deficit. In 1978, the balance of trade was a deficit of US$699,000, and in 1980, it deteriorated to US$5.24 million, and US$13.52 million, in 1988 (see Trade 4-b). Trade, and by extension balance of payment deficits, are pervasive problems in the leewards Islands, largely resulting from their inability to expand output, due to size.

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Source: UN 1960-1990
OECD 1970 -1990

In 1946, St. Lucia total exports increased from a low of only US$6,000, to US$950,000, in 1950, and US$4.36 million, in 1970 (see Table 4-16a). Food exports comprised 65.87% of total exports (mostly bananas), of which 64.77% went to the EU, primarily to the UK (63.2%). Crude materials were valued at US$574,000, and machine, transport, and equipment at US$182,000, whereas manufacturing was US$34,000, which accounted for the export share of 0.007% to the US. In 1980, total exports increased to US$46 million, mostly all of which were in manufacturing (US$15.03 million). Substantial exports increases were made in machine/transport/equipment (US$10.85 million), and iron and steel, from nil in 1970, to
US$4.27 million, in 1980. Food exports (US$13.25 million) were the second largest export value, and bananas (US$10.85 million) were the largest commodity.

TABLE 4-16a

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Source: UN 1960-1990

The EU purchased 25.6% of total exports, mainly bananas, of which the UK was the largest purchaser (25.1%), compared with 27.6% to the US, which were mostly in manufactured goods. In 1990, total exports more than doubled to US$122.33 million, and were mostly in food exports (basically bananas), which were mainly exported to the EU (60.8%), whereby 53.1% went to the UK alone. In 1990, the value of manufacturing doubled, but its export share to the US fell to 21.5%, compared with
a regional increase in exports to 15.8%. St. Lucia is typical of a Caribbean island, relying totally on one commodity export (bananas) to the EU, (manufactured products) to the US, and to the Caribbean.

In 1950, St. Lucia’s balance of trade with the EU was a deficit of US$1.51 million, and in 1970, it increased to a deficit of US$9.33 million (see Table 4-16b). In 1980, the balance of trade worsened to a deficit of US$16.55 million, the year when exports’ share to the EU declined to 25.6%. In 1990 however, the balance of trade improved to a surplus of US$14.23 million, and in 1991, to US$2.11 million. when the EU’s share was 60.8% of total exports.

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Source: UN 1960-1990
OECD 1970-1990
St. Vincent and the Grenadines are traditionally agricultural base, and until 1980, most of its exports were in agricultural products. In 1934, total exports were valued at US$344,740, (see Table 4-17a); and by 1958, exports increased to US$3.18 million, mainly in food (banana) exports, which were valued at US$2.62 million. In 1970, the share of total exports improved only marginally to US$3.27 million, of which US$2.68 million were for bananas.

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%EU 6.13 50.6 39.6
%UK 6 50.4 39.1
%US 10.6 4.2 15.1
%REG 15 44.02 43.2

Source: UN 1960-1990
Chapter 4: The European Union and its Implications for the Caribbean

The total share to the EU was 6.13%, mostly to the UK (6%), compared with 10.6% to the US. Although St. Vincent and the Grenadines are among the poorest of the Caribbean and Windward islands, the poverty has been somewhat alleviated, due to the attempts at economic diversification, to products that would have a higher value added to GDP.

In 1980, food exports (US$12.45 million) were the largest portion of total exports, valued at US$15.74 million, crude materials valued at US$6.49 million were exported, and manufacturing goods were valued at US$1.48 million. In 1987, total exports increased fivefold to US$85.25 million, most of which were food exports (US$62.96 million), mainly bananas. There were no reported crude materials exports, although manufacturing exports increased phenomenally to US$16.78 million, including exports of machine, equipment, transportation, valued at US$3.63 million. In 1980, the total share of EU trade was 50.6% with 50.4% going to the UK, but the US’ share had fallen by 6.4%. In 1987, regional exports were the most significant at 43.2% of total trade, followed by the EU (39.6%), and the US (15.1%).

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Source: UN 1960-1990
OECD 1970-1990
In 1950, the balance of trade with the EU was a deficit of US$1.03 million, and in 1970, the deficit increased to US$4.54 million (see Table 4-17b). In 1980, the balance of trade with the EU worsened to US$7.06 million, with only a slight improvement, in 1987, to US$6.32 million.

Trinidad and Tobago's major exports are petroleum and petroleum related products, but sugar, coffee and cocoa are also important, along with agro-industries. In 1934, Trinidad and Tobago exported the value of US$112.86 million, which decreased in 1950, to US$95.20. In 1960, the value of total exports was US$257.28 million, of which US$30.59 million was for food, mainly sugar (US$20.19 million), cocoa (US$4.76 million) and coffee (US$702,000). In 1960, the single most important export commodities were mineral fuels, valued at US$212.17 million. The EU purchased 37.51% of total exports in 1960, of which 31.07% went to the UK, and 4.98% to the Netherlands, compared with 19.73% to the US. However by 1970, the share of EU exports from Trinidad and Tobago fell to only 6.4%, of which the UK bought 3.8%, and the Netherlands 1%, compared with the US' share increase to 68.3%.

In 1970, total exports were valued at US$481.53 million, with food exports valued at US$40.88 million, of which sugar was the most significant, valued at US$22.94 million (see Table 4-18a). In 1970, mineral fuels increased by 175%, to US$371.93 million, and increased significantly in 1980, to US$3,820.91 million. Crude oil exports increased from US$37.03 million in 1970, to US$1,635.29 million, in 1980. Food exports increased by 180%, of which 139% pertained to sugar, and 224% to coffee. The value of cocoa however, declined slightly by 7.6%, probably due to a small decline in world price. Additionally, the value of manufacturing exports increased by 185% in 1980, from 1970.
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<td>6.2</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19.73</td>
<td>68.3</td>
<td>59.9</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.08</td>
<td>13.1</td>
<td>9.25</td>
<td>19.3</td>
<td></td>
</tr>
</tbody>
</table>

Source: UN 1960-1990

Trinidad and Tobago are one of the few island/nations, that had contractions in total exports during the 1980s. The oil boom during the 1970s resulted in boosting total oil output, and thus petroleum related exports. The general reduction in the price per barrel during the 1980s, has resulted in the decline in the value of oil related exports. In 1990, total exports were a total of US$2,080.43 million, (a 510% decline from
the previous decade), and subsequently, in 1990, the value of mineral fuels decreased by 365%, from US$1,395.76 million. Food exports value increased however, by 116% from the 1980, although there had been a decline in the value of sugar by 9.6%, possibly due declining world prices for sugar. In 1980, the EU’s share of exports increased to 11.7%, and the majority were exported to the Netherlands (6.2%), whereas the UK only received 1.6% compared with 59.9% to the US, and 9.25% to the region.

Despite Trinidad and Tobago's natural endowments of crude oil and gas, it has not shielded the island/nation from balance of trade deficits with the EU (see Table 4-18b), although in 1950, there was a surplus balance of US$3.95 million. In 1970, the trade deficit was US$10.78 million, but in 1980, there was a surplus of US$15.47 million. In 1990, the trade balance with the EU deteriorated to a deficit of US$24.1 million, and in 1991 and 1992, the deficit worsened, to US$64.92 million and US$124.15 million respectively. The balance of trade deficits are partly due to the decline in mineral fuel exports.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NET EXPORTS</th>
<th>EXPORTS</th>
<th>IMPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>3.95</td>
<td>88.15</td>
<td>84.2</td>
</tr>
<tr>
<td>1970</td>
<td>-10.78</td>
<td>93.77</td>
<td>104.55</td>
</tr>
<tr>
<td>1975</td>
<td>-64.92</td>
<td>141.64</td>
<td>206.56</td>
</tr>
<tr>
<td>1980</td>
<td>15.47</td>
<td>520.8</td>
<td>505.33</td>
</tr>
<tr>
<td>1985</td>
<td>41.4</td>
<td>306.19</td>
<td>264.79</td>
</tr>
<tr>
<td>1990</td>
<td>-24.1</td>
<td>172.86</td>
<td>196.96</td>
</tr>
<tr>
<td>1991</td>
<td>-64.92</td>
<td>185.72</td>
<td>250.64</td>
</tr>
<tr>
<td>1992</td>
<td>-124.15</td>
<td>105.18</td>
<td>229.33</td>
</tr>
</tbody>
</table>

Source: UN 1960-1990
OECD 1970 -1990
Generally, Caribbean losses in the share of commodity trade with the EU, have been replaced, to some extent, by increases in share value with the United States (US). The increases in share value with the US have largely been in light manufacturing, mainly the assembling of various goods, where most inputs have to be imported. Overall, Caribbean trade with the EU has increased in 1990s, since the lowest levels in the 1970s. There are many reasons for the increase in trade with the EU, chiefly, the changes in the world’s economy, which is now operating globally, and although the Caribbean has benefited, it has done so only marginally. Trade in primary products is declining, but ‘invisible’ trade, especially tourism, has grown significantly, and more growth is projected with the EU, in the future. Commodity trade however, needs to be fostered, and improvements to diversify the economies should be done, where non-traditional goods and services are exported.

4.6 THE SERVICES INDUSTRIAL TRADE

During the decades preceding World War I, trade with the Caribbean and Western Europe were a continuum of the sugar trade, but prices were becoming increasingly unstable. It is about this time that tourism in Barbados, and Bananas in Jamaica, slowly began its ‘takeover’ role as the major money earners in the region. The problems of rebuilding after World War II, shifted resources towards Western Europe, which lead to an overall slump in world trade, and the lowering of the price of sugar. The weakened market for sugar lead to lower prices, which resulted in economic hardships for the Caribbean economies, especially those based entirely on sugar production.

Sugar production capacity of the region was still at optimum levels, but prices were too low to sustain output. Subsequently, by the 1950s and 1960s, when the terms of trade deteriorated for developing countries, world prices for sugar fell again, and this period became the ‘watershed’ for the industry. In addition, adverse weather conditions galvanised the total collapse of the industry’s importance in the leeward
islands, and following these trade difficulties, cane sugar was abandoned, in general, by the Leeward Islands. Generally, large scale agricultural activities were ignored, and except for some subsistence agronomic, the islands pursued alternate economic options.

The exceptions were St. Kitts and Nevis, in the Leeward islands, had large scale agriculture. In the Caribbean at large, bananas replaced sugar (after over 350 years of cultivation), as the major export crop to the EU. Bananas are easily cultivated, and weather conditions in the Windward Islands are conducive to their cultivation. Moreover, the quality of Caribbean bananas is extremely competitive, and due to technological improvements, the specie has become resistant to diseases, thus yield per acreage has been good. The islands that could not produce bananas, due to climate, concentrated on services, mainly tourism, and presently, tourism has become the largest export earners in the Caribbean.

Interestingly, when services (tourism) are added to the export figures for the individual islands, trade balances with the EU would be more favourable. In 1990, Jamaica exported US$293.74 million goods to the EU, and had a positive net export balance of US$91.60 million. If tourism expenditure is added to the export figure, then the balance of trade therefore, would be a surplus of $831.60 million.

The Caribbean region has the comparative advantage in ‘resort’ tourism, mostly resulting from a warm climate, topographic, accessibility from the North, and a fairly large labour pool, and imported capital to facilitate the industry. In the 1980s and 1990s, with the economic awareness of an over-dependence on a handful of products (bananas on one hand, and tourism on the other), attempts had been made at economic diversification. Moreover, the provisions under the Lomé Convention, concerning trade with the EU, should continue to circumscribe the region’s economic development, through an increase in tourism demand, and other services.
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The dossier of Edye and Lintner (1992) asked the question of new dawn or neocolonialism, in the light of the new trade-aid packages provided under Lomé I. Questions were raised regarding the EU’s acquiring ‘secure raw materials at advantageous prices, to ensure markets for production excess and to maintain political influence in those areas’. The treatise continues to say that although there is, ‘an element of truth in these criticism, the clear difference between this type of treaty, which focuses on trade and aid and other types, which are more limited and conditional, and are related to military and strategic assistance’ (Edye and Lintner 1992:20). The liberalisation of the US’ division of labour precipitated, from the 1970s, increases in US trade with the Caribbean, but political reasons may also be relevant. Indeed, the political debacle that led to the fatality of the Grenada Prime Minister Maurice Bishop in 1984, resulted in the US’ ‘Brady Plan, which gave rise to the formation of the Caribbean Basin Initiative (CBI) and the Organisation of American States (CBI), similar provisions as the EU’s Lomé Convention.

4.7 RULES OF ORIGIN

The ACP-EEC Lomé Convention has strict ‘rules of origin’, as stated before, which could be a deterrent to the ACP states’ ability to attract direct investment from the United States and Japan. Goods that are manufactured and sold in the EU, usually obtain inputs from third countries, given the limited raw materials of the Caribbean. This is a problem under Lomé however, and perhaps the ACP members should aim for better cooperation (trade) among themselves. They should devise ways to purchase inputs from within the group, thus eliminating some of the problems under the ’strict rules of origin’, where ceteris paribus, manufacturing products could be sold on the EU market. Countries with agricultural potential, such as Dominica, could revise their agricultural policy to reduce the dependence on banana production, by diversifying and adopting regional supply policies. Agronomic would be geared towards regional demand, and inputs could then be used for agro-industries.
The problem of low-scale production continues to be a factor due to size limitation, thus, cooperation from islands with similar topography and climatic condition could improve productivity, through economies of scale. St. Lucia, St. Vincent and Grenada could embrace similar agronomic activities as Dominica, sharing technology, management, *ipso facto* reducing cost. Goods could be canned or bottled, could be utilised by other industries, for example tourism, which would reduce imports. Additionally, these goods could be sold to the EU, but could be subjected to tariffs and quotas; and given the region's bargain power, the terms of trade might be unfavourable, due to protectionism measures.

The EU consumption (absorption) of output, including Caribbean output, would be a function of EU income (y), and the terms of trade (σ), which would be the Laursen-Metzler effect. This effect relates to real income and absorption, which is derived from deflation, by the use of a price index, weighted against the sum of expenditure shares of the prices of the goods, which are absorbed or consumed by the EU. Terms of trade is given as (adopted from Murshed 1992):

\[ \sigma = \frac{p^E}{p^{1-gC}} \]

where:
- \( \sigma \) is the terms of trade
- \( P \) is price
- \( g \) are the shares of the EU goods
- \( E \) is EU
- \( 1-g \) are the shares of Caribbean goods
- \( C \) is Caribbean

If the terms of trade deteriorates due to the institution of ad valorem tariffs, then real income, and \( p_E Q_E / p \), would therefore, decline. Real absorption or consumption \( p_E \)
A / p would decline also, but by less than real income, as the marginal propensity to absorb is less than one (MPA < 1). As aggregate demand increases, the nominal rate of absorption increases, which has a positive effect on the national income of the EU.

Therefore, the Terms of trade would be a function of output \( Q_E \), where Keynesian theory equilibrium relationship in relation to aggregate demand (expenditure), equals aggregate supply (income), denoted by:

\[
Q_E = A (Q_E, \sigma) + C_C (1-V_C) \sigma X (\sigma) - \sigma M (Q_E, \sigma) + G
\]

where:

- \( Q_E \) denotes output in the EU
- \( A \) denotes absorption (consumption) in the EU and the agreed EU-Caribbean terms of trade
- \( C_C (1-V_C) \sigma X (\sigma) \) denotes exports of the EU to the Caribbean
- \( G \) denotes the autonomous expenditure in the EU
- \( M \) is imports of the EU from the Caribbean

where:

- \( A_1 > 0; \quad S_1 > 0; \quad S_2 < 0 \)

Protectionism is likely to be a factor in any event, due to the declining competitiveness of the EU, especially in the area of manufacturing goods. Proponents of the various life cycle theories predict that, developing countries will gain gradual competitiveness in old manufacturing industries, such as textiles. Hence, the EU and the US are concerned with declining output and employment in the stagnant industries because of macroeconomic issues, such as chronic unemployment and the subsequent potential of social problems. Any trade restrictions imposed on developing countries, would be seen as a feasible option to protect industries. And as developing countries' bargaining power (Hindley 1987) is disadvantaged, they are unable to retaliate (Milner
1992), due to their position regarding world trade, thus an ad valorem tariff would give:

\[
Q_E = A [Q_E + rM, - (1 + r) ] + C_C(1-V_C) \sigma X (\sigma) - \\
(\sigma M [(Q_E + rM, (1+r) \sigma (1+r)] + G)
\]

where:

\(\tau\) is the ad valorem tariff rate
\(\tau \sigma M\) is the tariff revenue

The tariff revenue is a redistribution of income back to the public in a lump sum manner, as direct taxes would not be increased to cover the cost of unemployment, (which would result from loss of industry), without this protection. The tariff revenue would inadvertently enhance disposable income, and would increase the ability of the EU to absorb EU output.

Ad valorem tariffs would have at least two effects in the Caribbean, one would be the absorption effect or the direct impact on consumption of EU goods, and the other, an indirect impact via the trade balances. Absorption effects have a negative impact on aggregate demand of increased imports where, as absorption increases, so too would imports. Tariffs do affect trade balances, and would dampen Caribbean trade balances, thus adversely affecting the terms of trade, where Caribbean incomes fall, and import from the EU declines. Thus, in figure 4-6 (page 179), the declining terms of trade would shift from c, to b, to a, and country I (Caribbean) would lose exports (from \(X_2\) to \(X_0\)), and as a result, the ability to import from country II (EU) would be reduced (from \(M_2\) to \(M_0\)). Hence, if absorption increases, then so would, ceteris paribus imports, and where tariffs dominate, the incomes of the EU would therefore rise. However, income would not increase, if imports decrease by a substantial amount from the country whereby the tariff had been imposed.
If the EU’s labour market is rigid, the benefit of the tariffs would be diminished considerably, due to the limitation of aggregate supply. The implication of the ad valorem tariff would be tantamount to a price rise, choking off some of the demand for these imported products. Thus, there would be a reduction in imports from the Caribbean. In the developing world, as labour is plentiful and cheaper than in the EU, multinational corporations (MNCs) will continue to place more of their manufacturing divisions in countries such as the Caribbean.

The Lomé Convention has made allowances for funds to be distributed to the ACP states, under STABEX. The stipulations are that, any shortfall greater than 2% of the average earnings of the last four years, is remedied by grants or interest loans. Lomé II had supplemented similar arrangements for minerals, but the rules and regulations of the schemes are complicated. Most countries will probably need some assistance, since exports from ACP to the industrialised world have fallen, between 1963 and 1979, and have continued to fall to only about 8% in 1990, as previously stated. The decline in exports to the EU is largely due to protectionism, and not the fault of developing countries (Hindley 1988). Industrial co-operation, mentioned in Lomé under title III, article 26, states that, there is ‘... a pressing need for the industrial development...’. The agreement to aid that process could come through industrial co-operation between the Community and the ACP States. The industrial process in the ACP, could be encouraged by promoting development, and diversification of industry, by new relations in the industrial fields, between the Community and the Member States. Moreover, cooperation between the ACP States could be fostered, where new industries and trade links are established, including the transfer of technology and education. There are funds allocated by the EC specifically to aid islands, as islands are seen to be disadvantaged. Overall, funds from the EC increased from 7,400 million ECU’s, from the European Development Fund (EDF), and 1,100 million ECU’s from the European Investment Bank (EIB) when Lomé III was signed.
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These funds are to be divided amongst 66 members. The ACP states requested an increase under Lomé IV, which was granted to 12,000 million ECUs through EDF, which represented an increase of 25% in real terms (46% nominally). An additional 1,200 million ECUs were granted, and handled through the European Investment Bank (EIB), which represented a nominal increase of 9%. All EDF funds were designated as grants, and not special loans, but the increases in grants/funds are not outstanding in per capita terms, especially given that there were 69 countries participating in Lomé, under the ACP grouping. However, as the EC has pointed out, the increases are greater than any other assistance budget in recent times (Edye and Lintner 1992).

4.8 THE LOMÉ CONVENTION AND THE SERVICES INDUSTRY

Categorically, the Caribbean's main export are services (off-shore finances and tourism). If the Western World economic situation is observed, one would conclude that the industrial world has entered the post-industrial era, where services account for around 77% of the US' economy, 66% of the United Kingdom’s economy, and 54% of the German economy. The advent of the information age has resulted in the easy transfer of technology, and with higher cost per labour in the developed world, Western nations have found it difficult to compete with traditional industries. The Western economies have lost their comparative advantage to the New Industrialised Countries (NICs) of South-East Asia, where wages are cheaper. The ability of the Caribbean to benefit from manufacturing is limited, due to size and raw materials. The evidence suggests that, the services trend will continue for the Caribbean, and with funds from the EU for tourism development, the economies would be able to continue the development of this sector.

Tourism, as all services industries, has the potential to absorb excess labour, as it creates jobs, albeit at lower wage jobs. In the Caribbean, wages are comparable with 'no wage', and where real competition arises, tourism competes with other services.
Hence, tourism is undoubtedly a *sine qua non* for increasing the living standards, if unemployment is the norm. Tourism has an added advantage, as it inherently spurs increases in overall economic growth, as it could foster local entrepreneurial activities. Economies that have pursued tourism in the Caribbean have advanced economically, but the islands may (in the future) need to find a niche market, as competition could result in profitability problems.

Lomé IV under Title IX stated that, the development of services should be encouraged. In Chapter 3, articles 121 and 122, for the first time, tourism was given a special caption, whereby the EU outlined the measures that government ought to take to develop tourism. Article 121 outlined that ‘...the contracting parties shall implement measures and operations, to develop and support tourism ... at all levels’. The aim of this development is to lend support to the efforts of the ACP nations, so that they would derive maximum benefit from national, regional and international tourism.

The development of tourism is encouraged, because of its role in effecting economic development (as has occurred in Barbados, Bermuda, the Bahamas, and the Cayman Islands), and its ability to generate foreign earnings. Foreign earnings can then be used to purchase EU goods and services, which would be an advantage to the EU economies. The articles also spelled out the encouragement of private financial flows, from the Community and other sources, into the development of tourism in the ACP, and the ‘particular need for the integration of tourism into the social culture and economic life of the people’. Private financial flows into local tourism development however, might have the opposite effect, where the integration of the local people is concerned, as foreign human resources, tend to follow from financial ones. Foreign human resources (who are usually better off), and foreign ownership of industry may result in the development of enclaves, which only serve to create local resentment.
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Notwithstanding, article 122 and 150 of Title XI, chapter 3 stated the need for development policies, on human resources, education and training, including a special reference to women's enhancement, in article 153. The provisions are laid out to foster tourism development and services, and to improve education and training, but the onus will be on Caribbean governments to take full advantage of the benefits that are provided. Article 165, Title XII has stated that, in reference to financing, special attention shall be paid to island states, in order to overcome the obstacles that might be impeding their development. During the 1990s, there has been high levels of tourism development on the Caribbean islands, including the provision of about US$10 million to the Caribbean Tourism Organisation (CTO), in 1992. This provision was given to facilitate a three year tourism development programme, which was mainly aimed at promotion, (to attract considerable more tourists) in Europe (Travel Weekly 1993).

Title VII, article 110 states the need for enterprises development, including inter-sectoral integration, and increases in employment, incomes, and the level of skills. Support of the development of services, as dictated in article 112 are: (a) The need for the development of savings and domestic financial sectors, by the assistance for the development of the financial intermediaries, and the mobilisation of domestic savings; and (b) The need for restructuring and reform of financial institutions, and the EC provision of technical assistance. Restructuring should include the provisions for readily available low interest loans to SMEs in the Caribbean, thus supporting businesses, as well as the encouragement of intra-regional SMEs cooperation.

The aims of the articles are a fortiori the economies, by broadening of the economic bases. This is essential to the Caribbean’s economic development, and the strengthening of the economic benefits from the tourism industry. Success will probably only occur through the creation of inter and intra-sectoral linkages, the transfer of current technology, and improvement of skills through education. All of the islands in the Caribbean need to have these provisions implemented, if sustainable
economic growth and development are to be realised. In title IV, provisions are made for financial and technical cooperation, whereby the level of economic development could be improved, and the standard of living could be increased. In title V, the provisions are outlined for capital movements. However, it is debatable how much the Caribbean has benefited, and will benefit from the EC’s structural programs for two reasons; (1) the limited amount of funds that are allotted to an increasing number of ACP states, although special provision have been for islands states; and (2) the awareness that funds are available for specific projects, and effective usage of those funds. The EC has designated aid to the ACP states under Lomé to the governments in question, but increasingly, funds are disseminated through Non-governmental Organisations (NGOs), such as CTO. The channelling of funds through NGOs should decrease waste.

The EU is important to the economies of the Caribbean, and the EU area has potential for increases in tourism demand to the Caribbean. GNP, population growth, and unemployment rates have been used as indicators of the economic situation of the EU, but within the EC, there is also a North/South economic divide. Thus, it is unwise to view the EU as a whole when discussing tourism demand, as there are varying economic levels amongst the Member States. Traditional markets exists because of the colonial links between the United Kingdom, France, the Netherlands, and the metropolis of Spain, and Germany, (the new generator). Careful economic analyses of the 12 EU states, indicated that outside of these, only Northern Italy, Denmark, Belgium and Luxembourg could have potential tourism demand to the Caribbean. The converse is true of the remaining EU nation, as Southern Italy, and most of Spain, Portugal and Greece, may not be as economically viable, and are not expected to become major generators of tourists in the near future.
4.8 CONCLUSION

The formation of the Economic Community commenced with trade from 1815, after the Industrial Revolution began in Britain. Subsequently, exportation of innovative industrial ideas to Europe gave rise to the birth of mass production. The advent of industry resulted in the mass exodus of labour, from the rural areas to the industrial cities, and with it, for the first time, the mobility of the factors of production. The employment of these peoples in industries would result in the increase in wages, the purchase of goods *en masse*, and the improvement in standards of living. Later, many laws had to be enacted, to prevent exploitation of children, and in general, to minimise hours of work.

The World Wars threatened to destroy intra-European trade, but increasingly cooperation became the norm within the region, which has produced the customs union, the first, (between Belgium, The Netherlands and Luxembourg), was called Benelux. This paved the way for the extension of other agreements, the most important, the European Coal and Steel Cooperation (ECSC). Britain declined to participate in this historic cooperative, thus the members were France, Germany, Italy and Benelux. The main aims of the ECSC were to promote co-operation and unity among the members, and to jointly rebuild their economies, by establishing a common market for steel, iron ore, and coal.

The members of the ECSC under the Mansholt plan, gave way to the Treaty of Rome in 1957, of which Britain again declined participation. The Treaty of Rome established the original 6 into a full Economic Community (EEC), a customs Union, that eventually doubled to 12 member, by 1986. The ratification of Maastricht in 1993, gave rise to full federation, under the European Union(EU). Britain’s entry in 1971 resulted in some Commonwealth countries gaining preferential access to the EU market, under the Most Favourite Nation (MFN) clause, where their goods had access to the EU area, free of quotas and tariffs. The mechanisation to facilitate that process,
was installed in 1975, and gave rise to the Lomé convention. Lomé is a trade-aid agreement, renegotiable every 5 years, and in 1989, Lome IV was agreed, and was finalised in 1992, until it is re-accessed in the 1997. The Caribbean has few goods to offer, and one in particular, bananas have been a problem. In 1992, at the end of the negotiations, the price was reduced, thereby allowing for some competitiveness with the Costa Rican and Columbian bananas. Caribbean banana production suffer from diseconomies of scale, and thus suffer from high per unit cost of production. There are unable to compete with the more efficient (cheaper) Central American banana producers. The problems that continue to arise, with Caribbean bananas having gained free access to the EU, strengthen the case for restructuring of the Caribbean agricultural situation. To date, the problems have mushroomed, and the case has been bought to the EU courts.

The services industry was mentioned in Lomé IV, and special mention was made regarding tourism and its role in economic development. The EU recognises services impact on ACP economies, and is encouraging their development of the services sector, by granting funds, loans, and advise. Tourism development has single handedly accounted for the Caribbean’s economic development. The region has the comparative advantage to exploit the tourism industry, given its natural endowments. In contrast, there have been very little advantage in export agricultural crops, except for spices, which yield low export earnings. The manufacturing sectors are further disadvantaged, and the likelihood of EU trade barriers seem probable. The continued importance of services (tourism and off-shore finances) is likely to continue in the Caribbean, especially as export crops continue to deline.

The islands suitable for agriculture should, and probably given the current trend, will become the food basket of the region, thus producing food products that can be used in their natural state, and as inputs in agro-industrial products. The EU has stressed the need for diversification and restructuring of the region’s agriculture, and will provide funds to aid that process. Holder (1980:79) pointed out the need for, 'some
island... development of light industries and agro-industries. Tourism, where it exists, can help these industries along...'. Reorganisation of agriculture (Davenport 1991, Farrell 1983) is urgently needed on a regional basis.

Agriculture reorganisation should concentrate on those areas that form the basis food groups, which can then be sold to the hotels, thus minimising food imports. Cold storage, bottling, and canning facilities must be available to utilise the excess supply, during peak production levels. Local and regional manufactured goods such as furniture, could also be used in hotels and other tourism establishments, which would minimise imports from outside the region. Both Agriculture and manufacturing goods remain beneficial to tourism’s viability, and the region’s economic development. In the absence of backward linkages, the ability of the tourism industry to contribute to the region’s economic development, would be minimal.
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5 METHODOLOGY

5.1 THE OBJECTIVES

The objective of this study is concerned with the issue of economic development of the Caribbean islands, and the contribution that tourism in particular, makes to the island economies. The focus is concerned with the primary and secondary research on the Caribbean and EU economies, and the viewpoint of the European Union (EU) in relation to the identification of development problems. The EU was chosen because of the significance of the single market in 1992, and the historical trade links between the two areas. The tourism potential from the EU should be formidable, since this area is largely untapped, hence with the formation of the EU, and what that implies for increase in trade, tourism demand should increase to the Caribbean from this area.

A single European market (SEM) should result in increased economic benefits for the Caribbean countries in the EU, which should bring higher levels of disposable income. Higher levels of disposal income in the EU should determine potential demand for Caribbean goods and services, particularly, tourism. Moreover, the relaxation and abolition of barriers to trade among member countries should increase competition. Competition in sectors such as, air and sea transport should prove advantageous to Caribbean trade. Competitive fares and freight should increase the likelihood of more tourism demand from the EU to the Caribbean, and more competitive pricing for goods to the Caribbean, and from the EU.

The secondary objectives are threefold: (1) The forecasting of future demand; (2) The analysis of the Organisation of Eastern Caribbean States (OECS) economies, while ascertaining the level of economic impact of tourism expenditure; and (3) The limitations that prevent strong linkages within the islands’ economic framework. The
secondary objectives were discussed based on findings from the secondary source research. If stronger linkages were a part of the economic framework, due to the presence of diverse agricultural and manufacturing industries, then tourism expenditure would therefore, impact the economies forcefully. Strong impacts would result from backward linkages that could be formed with the agriculture and manufacturing industries, whereby economic activities would increase, which would result in higher levels of economic development. Economic deficiencies limit economic development, giving rise to low levels of national income, which would provide the funds, to procure the necessary infrastructure to facilitate industry. Additionally, low levels of national income would result in lower standards of living, and at its worst, would give rise to unproductive social problems.

5.2 THE SCOPE OF THE STUDY

An understanding of both Europe and the Caribbean is an important strategy to a study of the research question. A secondary research was done in order to study the economies of the EU, and the Caribbean. The literature review was an essential method to gain an in-depth understanding of the many issues that surround the subject. The research consists of both primary and secondary data collection methods, which is needed for a thorough study (Nash 1981).

The primary research took the form of a field survey, over a 15-month period, using a sample of the general population who travel to the Caribbean. A literature review was also employed, by which secondary source data could be obtained to not only form the background to the study, but as a means whereby the research question can be answered. Hence, a familiarisation of the nomenclature was essential to reinforce the discussions. The primary source data was necessary because; (a) it was essential to test the hypotheses, and; (b) the information sought was not available from secondary sources. The secondary research data collection was germane to the
research’s hypothesis, that is, in order to formulate the research question, and additionally to discuss the key points of the research question.

5.3 THE SECONDARY RESEARCH

The secondary research included several phases, a comprehensive, systematic approach through which information could be gathered to obtain unbiased data. The determinants of the study had to be derived, before the research could be conducted. Cogitations had to be made of some pertinent issues, surrounding the potential results of the analyses. As the study concentrates on economic development with special reference to a region that sui generis, concentrates on tourism for its economic viability, important writings on the issues that concern that economic sector had to be studied. The main variables were studied, to determine their relevance to the research’s hypotheses, which could only be done through the secondary research. The varied information that makes up the body of knowledge, concerning the Caribbean’s tourism industry and economic development, helped to provide the basis for the questions in the survey.

The relationship between Europe and the Caribbean is indeed historic. The use of secondary data in an economic historical synopsis, established the sources of that relationship, and could only be accomplished from a secondary research. The connection was outlined from the inception of the Caribbean’s economic organisations, to the ramifications of the formation of the European Union; and the implications for the Caribbean’s future trade. The implications of Caribbean trade, both in terms of goods and services, were thoroughly researched, during the secondary data collection. These issues formed the background to the study, as no thorough study of Caribbean economic development could be done without this framework. The framework encompassed the historic and present economic situation, as well as international trade.
The primary research was necessary to decide what aspects of the development issues from the EU perspective should be examined, in order to resolve the research question. The primary research was carried out in a manner, to derive the potential economic development problems in the Caribbean, by questioning the demand in the EU. The study could have also be done from a supply point of view, but that study would not have been novel, as invariably studies on the Caribbean have been done from the supply, and not the demand.

The EU was chosen over United States (US) (although the US represents the largest single generator of tourism demand to the region), because of the trade links and historic ties between the Caribbean and Western Europe, which were derived from the secondary research. Moreover, the Anglophone Windward islands have continued to rely on the bargaining power of Britain, to maintain a protected market for the banana trade. This is a major consideration for 'visible' exports on a whole. The increase in tourism demand from the EU area is an important factor regarding Caribbean 'invisible' trade, specifically given the overall decline in tourism demand from the US.

The Single European Market (SEM) which resulted in the formation of the European Union (EU), in 1992, has major economic significance to the future of the region. The factors of production in the aggregate in the EU, should lend themselves to high levels of productivity. It is this higher productivity, and the subsequence increase in disposable income that should determine future tourism demand, and this was reinforced by the secondary research findings. Increases in tourism demand from the EU are vital to the Caribbean economies, as the economic impact could be significant. Western Europeans stay longer, ipso facto spend more, and are more likely to spend money in the local communities, than their US counterparts (CTO 1990). Their expenditures could, if leakages were reduced, provide major economic impact, which would result in the more positive economic development in the region.
The ability to predict that an event may occur in the future is limited without the gift of clairvoyance. But, if history is an indication of the future, then by using past information to establish relationships between key variables, one can project forward in time. Forecasting utilises an econometric approach (a quantitative technique), to detect future trends in any industry. Forecasting was necessary to outline the future potential of tourism arrivals from the EU, and to analyses the islands' economies, as well as to lend support, whereby the research question can be solved. The forecasting approach uses a market size method, based on the demand function, where future tourism demand could be predicted. Tourism supply forecasts in relation to the tourism demand could have been analysed, but the limitation of time and money prevented this exercise.

In order to accomplish the forecasts, data were collected by way of secondary research for 15 years (1978 to 1993), for eight islands and the grand total for all of the Caribbean. The islands were chosen based on a list of criteria, such as the percentage of past demand from Europe, as it was considered that the islands that almost totally relied on the North American market, ie. with more that 80% demand from the North American market, would not be relevant at this juncture to be included in the discussion of forecasting of future tourism demand from the EU. This decision draws the conclusion that past experience would dictate future demand, as such, past tourism demand from the EU is expected to continue and increase. Other criteria that were use to determine the islands that would best be forecasted were size of national income (y), economic and political organisations, and location. These variables were employed to ensure a more even use of countries, along economic, political and linguistic lines, including geographical location within the Caribbean context.

The data that were forecasted pertain to arrivals only, where forecasts results were obtained for eight years, to the year 2000, and was obtain during the secondary research. Independent variables were chosen, based on their known ability to influence future demand (Martin and Witt 1989, Witt and Witt 1994, Witt 1994).
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These independent variables were per capita income, population size, longhaul airfares, and price indices (based on the secondary research), and are standard variables that are used to carry out multivariate analyses. Computations of future forecasts were done at 0.5 significance, (95% confidence level).

The economies of the Organisation of Eastern Caribbean States (OECS) were analysed, and these analyses followed on from the forecasting chapter, since forecasting was also done. The analyses were made possible with the use of regression, whereby mathematical equations (linear functions) were derived, so that predictions could be made. Forecasts were accomplished on these economies because of ease of data collection, from the OECS Economic Secretariat in Antigua and Barbuda. The economic secretariat complies comprehensive economic data on the representative nations’ economies in the OECS, hence as a result of the readily available data and the ease of travel to this destination to collect the data, analyses of the OECS was successful. Conversely, data on the remaining economies were difficult to be obtained, as postal requests were unsuccessful, and the data was never received, and the limitation of money and time made it impossible to travel to the remaining destinations.

The OECS nations were analysed by disaggregating GDP, pertaining to GDP at constant and market prices, factor income, wage income, operating surplus and Government wage, imports, exports, consumption, investment and savings. A time series approached was adopted, and a series of equations were constructed using relevant variables, and analysed. A time series is the most comprehensive format for forecasting, and the equations have pointed out the means whereby the variables were derived mathematically, and analysed. Diligent analyses were undertaken to: (a) determine the main economic sectors; and (b) to determine the viability of the sector as a growth area, based on world trends. An input/output model would have achieved the same process, but would not have afforded the additional ability to predict future growth. Only a time series approach can accomplish this task. The continued growth
in world demand of any particular export sector(s) would point to the feasibility of those sectors, to continue to provide economic stimuli to maintain economic growth.

Forecasting using regression analyses of national accounting variables, such as GDP, consumption, investment, exports, imports, and balance of trade were undertaken. This was done to derive equations under which future GDP, consumption and so on could be envisaged. Forecasts of these variables’ past data points could have also been accomplished by use of a computer forecast method, such as Forecast Pro, in order to derive future data points. However, that method would not have given equations, which pointed out the most vibrant economic sectors. Therefore, when tourism was proven statistically to be the main economic sector of an island’s GDP, forecasted values of tourism expenditure (the independent variable) based on forecasts of future arrivals were used to derive future indications of GDP. This explanation was also used with agriculture value added, when that sector was indicated to be the main economic sector. The forecasted values of future tourism expenditure, agriculture value added, and so on, were used as explanatory variables in linear equations to derive future GDP.

In summary, forecasting analyses in this treatise utilised two methods, both based on time series data, which were collected during the secondary research, and were analyzed by computer calculations; (1) Computations via Forecast Pro were accomplished, whereby forecasted values were generated for a specified time in the future, and; (2) Linear regression via SPSS was done, whereby equations were manually formulated to determine future trends. These two methods were calculated concurrently in the OECS model, whereby analyses were not biased by only one method, and errors would then be reduced. As the data used in forecasting are static, and are based on pass occurrences, the results could be misleading. Unsuspecting future events, such as a civil war or natural disaster would adversely affect demand, and the forecaster would have no indication of it occurring. This uncertainty poses
as a major limitation to forecasting, but some indication of the future is superior to none at all.

Another measure of an economy's performance, based on the economic sector impact, is the Keynesian multiplier approach. Income multiplier studies for individual islands could not be calculated due the limitation of research resources. Indeed, income multiplier studies, on one or two islands that might be considered typical, would lend considerable knowledge to research. The income multiplier would point out the impact that tourism expenditure had on the economies, and could then be compared with the forecast equations where tourism expenditures were germane to the islands. Some income multiplier studies were used for discussion purposes, as references to explain tourism's economic impact on particular islands (Archer 1977, Fletcher 1994).

A strong economic impact of tourism, indicates that tourism expenditure remains in the economy, and contributes to economic growth. The formation of strong intersectoral linkages, between tourism and other economic sectors in the local economy, would result, ceteris paribus, in a higher income multiplier.

The secondary research process lends valuable knowledge, which was used both in computational analyses and in the discussions. The secondary data afforded detailed information regarding the Caribbean economic history, international trade with the EU, the forecasting of future arrivals, and analyses of the economies. Indeed, very importantly, it offered some explanations to the problems that were found during the primary research, whereby the research hypotheses can be analysed.

5.4 THE SAMPLE

The Sample used for the primary research, comprised two populations; the industry personnel; and visitors. It was felt that by obtaining a cross-sectional view of the industry's opinion, and the visitors, a more comprehensive view of the islands' development problems could be ascertained. The industry is not looked upon as in
any way more knowledgeable than the general tourists, as it is assumed that the tourists would be equally aware. EU peoples are not seen to be an authority on development issues, but as their outlook would be influenced by the developed world, their opinions are valued. Additionally the tourists are the end-users, thus their points of views regarding the destinations’ development were deemed paramount.

5.4.1 The Industry Sample

The industry sample was chosen because it was hoped that tour operators who sell packages to the region, would be cognizant of the main economic and political issues of the destinations. Additionally, the operators would be remiss, if tours were sold to a country that is an abysmally poorly run destination. Tour operators were interviewed in six EU countries, to obtained a cross-sectional view of all the main markets from the region. The six EU countries were the France, Germany, Italy, Spain, the Netherlands, and the United Kingdom.

Primary data collection in these countries were done to ensure a comprehensive view of the development problems from an EU perspective. Data from only the UK, where the researcher was based, would be a one dimensional view within the EU, and would result in only a study of UK industry opinions on development issues in the Caribbean. Additionally, it was hoped that any differences within the EU could be obtained from a broader based study, which proved not to be the case. The travelling public within the same six EU would have offered a larger sample, and would have been a totally comprehensive view of the EU areas, vis à vis, the EU industry only. The limitation of time, money and personnel however, made that process unlikely. Hence, the decision had to be made concerning how a primary data collection of the other five EU countries was to be accomplished, if the study is from the EU perspective. The only feasible method of collection was envisaged from the industry, since a listing of EU based tour operators and tourism representatives could be obtained from the London based, CTO.
Prior to the continental visit, it had to be decided what countries would be relevant for interviewing. The UK was chosen, as it is one of the main tourism generating markets to the Caribbean. In 1990, UK arrivals to the Caribbean were 398,000 or 25% of all EU tourists to the region, and this represented a 44% increase from 1989 (CTO 1990). This high percentage in arrivals could be resulting from the fact that; (1) the Caribbean islands are mostly Anglophone, and the vast majority has retained the British Monarch as head of state, and; (2) organised holiday travel from the UK has been in existence from at least the early 1900s (Aspinall 1939). Political and economic organisations, and to a lesser extent cultural ties, have mitigated the British as traditional visitors to the Caribbean. The same discussions apply to the French and Dutch Caribbean, given the existing political and economic links from Western Europe. Hence, the French are the main visitors to the three main French destinations of Guadeloupe, Martinique and St. Barts, and likewise, the Dutch are the main travellers to the Dutch Caribbean islands. The trend in Caribbean travel, from Western Europe follows closely along linguistic lines.

The obvious question that begs however, is concentrated around the identification of the other peoples from Western Europe that comprised the visitors to the Caribbean. Analyses of the remaining EU countries’ visitor profile was carried out, to determine which ones would be relevant as a main market to the Caribbean. This review was carried out by analysing CTO’s (1970-1992) data, which pointed out the origin of visitors. In addition, analyses of British Tourist Authority (BTA 1991) report, Devas’ (1990-1993) work on the European tourists and OECD Economic Outlook (1978-1992) were done, to obtain a tourism and economic profile on the EU countries. The analyses suggested that there were only three other countries that would be relevant, Spain, Italy and Germany. Spain is a main market for the Hispanic Caribbean islands of the Dominican Republic and Cuba; Italy is a main market for the Dominican Republic; and in general, Germany is the emerging main market in the region. Germans account for a significant number of arrivals on all the islands, although there remains considerable growth potential. In 1989, only 2% of Germans who travelled
abroad went to the Caribbean, thus, an upward trend in arrivals from this non-traditional market is expected (CTO 1990).

The six EU countries included in the main study are among the most economically viable. The secondary research findings suggested that, although high unemployment and boom-bust cycles have affected the EU economies, their abilities to continue to be main tourists generators to the Caribbean should remain. This is not to discount the remaining countries that could be potential markets, but to date, these countries are not positioned to be of any material importance to tourism in the Caribbean in the near future. Additionally, interviews carried out in these countries would not be useful, as there would be no prior knowledge of the destinations in question.

Tour operators were chosen from lists obtained from the known Caribbean destinations with representatives in the United Kingdom, based on a listing obtain from CTO (UK). These lists were acquired from the islands of Antigua and Barbuda, Barbados, Dominica, St. Lucia and Grenada, where a comparative approach was employed. The tour operators common to all the islands were chosen to be surveyed, as it would be more efficient to employ this approach than by questioning all the known tourism operators in the UK. It was assumed that the tour operators common to all these islands would be representative of all operators to the Caribbean from the UK. This method of selection was chosen to reduce bias, and to encourage a fair usage of the operators that might represent the Caribbean in the United Kingdom. Similar to the UK study, lists of tour operators and country representatives were obtained from Caribbean Tourism Organisation (CTO, UK), to be targeted for interviewing on continental Europe. This was the most efficient method to obtain the information on tour operators from the European continent, who sold to the Caribbean, than by sending questionnaires to the varied islands, which would be time consuming and expensive.
5.4.2 The Tourists Sample

The surveys from the demand (tourism) were carried out at the Heathrow and Gatwick airports in the UK, where outbound passengers were interviewed from a prepared, self-administered questionnaire. The airports were chosen as they were the most frequently used airports by the airline carriers for outbound Caribbean travel. The airports were visited on the day that flights departed to the Caribbean, via the two carriers to the region, British West Indian Airways (BWIA), and British Airways (BA) from the UK.

Passengers were selected at random, while waiting in the queues to check-in, and attempts were made to obtain an even number of the sexes, to maintain a fair representation of the sample. Outbound passengers were chosen in lieu of inbound passengers, as inbound passengers were less inclined to answer questions after a long transatlantic voyage.

The assumption of the study is that, by sampling at the departure point to the Caribbean, repeat visitors to the region could be interviewed. It is true that many persons could be first time visitors (as was reinforced by CTO's analyses), and indeed this was the case, specifically during the summer months. As determined from the survey, many visitors during the 'peak' winter seasons were repeat travellers to the Caribbean.

5.5 THE FIELD RESEARCH

Primary data collection can only be accomplished by employing a field research method, either by telephone, postal, or personal interviews in the social sciences (Hartmann 1988). The survey that was chosen took the format of a self-administered questionnaire, as there was no other feasible method whereby the information could be obtained as effectively for analytical purposes.
In order to run rigorous quantitative analyses, a larger sample would have to be collected from the population if the variables were to be statistically significant. It was determined that this could only be accomplished by an indepth personal questionnaire method. Focus groups, the delphi technique form of interviewing, telephone, and postal surveys were inappropriate, in view of the fact that the researcher wished to obtain as wide a cross section of the population as possible. Focus groups and the delphi techniques lends a narrower scope, in terms of sample size, than telephone, postal or personal interviews. A telephone research methods was incapable of being as effective as personal interviews, since it would be more difficult to identify the population sample. The other exception to the survey format was the pilot study of the industry, which was done by sending postal questionnaires to the UK industry, as they were known.

A postal questionnaire of the main study however, was not feasible because it would be difficult to obtain addresses of the previous visitors to the Caribbean. A random method could have been chosen from geographic areas using the telephone directory; but this methods would have undoubtedly reduced the response rate, due to non response, as postal questionnaire traditionally have a low response rate (about 20%). Telephone surveys were often seen as an intrusion into the privacy of one's home, and the response rate would be less than personal interviewing.

The continental sample were specifically targeted, and postal questionnaires could have been sent out. However, due to the general low response rate of postal questionnaires, as mentioned before, it was deemed necessary to conduct personal interviews to maximum the response rate. Personal questioning was considered the most expedient to conduct the questionnaires, and it gives the interviewer the opportunity to have direct contact with the experiment (Backstrom 1992, Bailey 1982), as opposed to a "hands-off" approach. Moreover, since personal interviewing has the built-in ability to obtain detailed information, questions that might be left unanswered due to their sensitivity, such as age and income, can be reworded, or explained, to
appear less offensive. It is the ability to reword questions that reduces the risk of questions being unanswered. In a postal questionnaire, rewording would be impossible. As the interviewer is present, rewording to clarify or to explain questions was useful, especially as the continental countries were non English speaking. Telephone interviewing would be more difficult to administer, due to the fact that the interviewer is detached from the respondent.

The most reliable method by which the information, from the five continental countries could be obtained was by personal interviews, over a period of five weeks. The questionnaire was translated into Spanish only, as it was felt that Spanish might have the least command of the English language. Indeed, this proved to be correct, as most people (who were interviewed), in Madrid, spoke french as a second language, and English as a third. In the remaining EU countries, English was often the second language spoken, and the researcher (interviewer) could converse in french.

The questionnaire's aim was to answer the research question, which centred around the Caribbean economic development from the EU perspective. The questionnaire asked the question specifically on what in the respondents opinion, were the problems on the Caribbean islands that they had visited. This was an 'open-ended' question, which was administered without prompting by the interviewer, since this was the most crucial question, whereby the researcher hoped to extract the issues that concerned the islands' development problems.

The second most crucial question was asked concerning their level of enjoyment of the islands in question, and this question was asked before the question relating to the potential problems. This question was asked before, since the intention was to obtain an unbiased, 'knee-jerk' reaction to their level enjoyment of the islands, before discussions of 'problems', that could bias that instantaneous response. It was apparent that a relatively unbiased responses was obtained, in view of the fact, that islands
which were deemed to be riddled with problems, such as Cuba and Dominica, were in some cases quite enjoyable. A low level of enjoyment seemingly correlated with areas with crime and in some cases, overt poverty.

The question concerning whether the respondents would return to the destination was asked, to ascertain whether there was a likelihood of a repeat visit. The question concerning a return visit to the destination if the problems were resolved was asked, to derived the impact that the problems had on the respondents. In some cases, the impact was significant, since some respondents pointed out that even with improvements they would not return, or only with improvements would they return to a destination. One example was the crime issues in Jamaica, which many respondents said would have to be improved if they were to choose Jamaica as a tourism destination in the future.

The demographic questions pointed out the type of visitors to the Caribbean, based on socio-economic and spatial distribution in the UK, as well as, the countries in the EU. The demographic data were compared with other studies on tourism profile, thus ascertaining how representative the sample was at the UK airports. The industry sample was targeted specifically, and as many tour operators and travel agents as possible were visited to capitalise on time, and to ensure as large a sample size as possible.

The breakdown of country and industry group was successful, and was instrumental in accomplishing the field research. This method proved to be an efficient means whereby a good cross-section of the EU could be derived. This approach proved to be effective, since the UK respondents were representative of the UK travelling public. The representative sample was ascertained by the type of random sampling that would ensure depiction of the UK traveller to the Caribbean region, at the time of sampling. The industry survey in the UK and the continental countries that are important to caribbean trade, formed a sample of the tourist industry. The
information from all the pertinent EU countries were effective in answering the research question. This method was a productive approach, since information from the industry was in concurrence with the UK respondents, both industry and travelling public, and there were no variations between the various countries. Therefore, if the Spanish indicated that the Dominican Republic had problems with poverty issues, the French and UK respondents indicated as such. It is the lack of variation among the respondents, and the comprehensive study from the UK, and the cross-section of the industry sample from the six EU countries that have contributed to the study's success in answering the research hypothesis.

5.6 THE PILOT STUDY

A pilot study was carried out, using two methods, a postal questionnaire and personal interviewing method, whereby the same questionnaire format was used. A postal questionnaire was feasible, as the sample size consists of tour operators in the United Kingdom (UK), who packaged Caribbean holidays, and they were known to the interviewer. A personal interview could have been another method whereby the information from the industry personnel could have been ascertained, but due to limitation of time and finances the postal questionnaire was chosen. The pilot study was done to determine the response rate, and feasibility of the study. The second method was personal interviewing at the airports, whereby outbound passengers to the Caribbean were interviewed about their previous visits to the specific islands. The pilot study was undertaken to determine that the correct questions were being asked, and that the information sought could be obtained somewhat easily. In general, questions were checked for clarity, ambiguity, and bias.

The pilot survey was completed with a total of 60 respondents, comprising of eighteen completed mail surveys, and forty-two interviews of outbound passengers. The questionnaires were coded and entered into SPSS (a statistical database package for the social sciences). SPSS was considered the most comprehensive and powerful
computer package available, whereby multivariate quantitative analyses could be done. It was chosen over a variety of packages, because of its analytical power. The data were successfully reviewed, by entering the data into SPSS, and frequency lists of the research variables, for 60 respondents were studied. The pilot test was reviewed, to determine if the information and the relevant data needed to test the hypotheses were being obtained. The analyses from the Pilot study showed that 60% (p) of the responses had been to the Caribbean, which infers that 40% (q) had not been to the Caribbean.

5.7 THE PRIMARY RESEARCH

The field work relating to the primary data collection, using the personal interviewing method was carried out in two phases. The first phase was undertaken by the collection of data from a sample size of 321 respondents at the airports. The second phase was carried out on the Western Europe continent, where 100 successful interviews were obtained from the industry within the remaining five countries. The total sample was 401 respondents.

The sample size (n) of the main study was determined based on statistical analysis, in order to ensure a representative sample. The sample distribution would have to be drawn form the population (N). Thus, the critical ratio would need to be ascertained, if the hypotheses were to be tested successfully. The population was determined to be at least 398,000, as in 1990 that many people from the UK went to the Caribbean. The appropriate sample size, drawn from the population was calculated to minimise the margin of error, because as the sample size (n) becomes larger, the change of error becomes smaller. Following, the set of parameters and tolerance levels, and the standard deviation of the sampling distribution of p hat (standard error of the proportion) must be assessed. The standard error of the proportion is calculated based on some assumptions; (1) the population is large and normally distributed, and the distribution of the sample mean would be normal, as the distribution of the population
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is assumed to be normal and; (2) the mean of the distribution of the sample mean is equal to the population mean. The standard error of the proportion can be written as:

\[ E = \sigma_p = \frac{p \cdot q}{\sqrt{n}} \]  

(5-1)

A significance level would have to be determined, to decide the degree of error, hence, the confidence limit would be given by:

\[ \hat{p} \pm Z \sigma_p \]  

(5-2)

where:

\[ \hat{p} \] is proportion of positive responses (x/n)

When the pilot was assessed, out of 60 responses, 24 persons had not been to the Caribbean (q), thus, the sample proportion would have to determined with an appropriate error for the research. At 0.01 standard error, the calculation of the sample size (n) was 9,230, which realistically would be too many cases, given the limitation of personnel, time and finances. It was calculated that, if the researcher had 15 months to complete the study, and the pilot study was completed in 3 months, then in 15 months, 300 persons could therefore be interviewed. It was decided that the standard error of the proportion (E) would be 0.055, if a manageable sample size could be obtained. To derive the expected sample size that can be tested at 0.05 significance level, the equation is given:

\[ 0.055 = 1.96 \sqrt{0.6 \cdot 0.4} \]  

(5-3)

\[ \sqrt{n} \]
0.055 = 1.96 \sqrt{0.24} / \sqrt{n} \\

0.055 = (0.9602) / \sqrt{n} \\

\sqrt{n} = 0.9602 / 0.055 \\

\sqrt{n} = 17.457 \\

n = 304

The standard error can be used to calculate the upper and lower confidence limits, at 95% confidence, given by:

\[ \hat{P} \pm 1.96 \times \text{SE} \]  \hspace{1cm} (5-4)

The upper limit would be:

\[ 0.6 + 1.96 \times (0.055) = 0.655 \]  \hspace{1cm} (5-5)

and the lower limit would be:

\[ 0.6 - 1.96 \times (0.055) = 0.545 \]  \hspace{1cm} (5-6)

The confidence limits would range between 0.545 and 0.6450, at 0.05 significance when the sample size is 304, and the standard error of the proportion is 0.055.
5.7.1 Phase One

Phase one of the primary data collection was accomplished over a year-long period, from January (winter) of 1993 to May (spring) of 1994. This phase was undertaken over this time span, in an attempt to obtain information from passengers throughout the off and peak seasons. Most UK travellers who were repeat visitors to the region were peak season travellers. It was perceived to be a narrow view however, if information is obtained only during the peak season. The off season travellers were assumed to be first time visitors to the region (as mentioned before), based on the CTO reports, and the travel patterns of the UK tourists to the Caribbean. However, surveys had to be done at this time, since some repeat visitors may have also travelled in the summer months.

Peak and off peak seasons were determined by analysing CTO monthly arrival figures over a two year period, from January 1989 to December 1991. The peak season appeared to be in the winter months, from December to early May, and the off peak season appeared to be from July to October. Late May to July and November were neither off peak nor peak season, as the numbers indicated the declining trend, trailing off towards the summer months; and the upward trend is in November to the winter season. September and October were the lowest months, because that period is the hurricane season, and people are less likely to travel to the Caribbean at that time.

It was confirmed by the survey that, most visitors in the summer months were indeed first-time travellers to the region, hence the study incorporated two winters to obtain a larger sample size (hence 15 months). Nonetheless, if comprehensive results were to be obtained, then a varied and completed cross section of tourists would therefore have to be interviewed throughout the year.
5.7.2 Phase Two

The continental study commenced phase two of the primary research in study, whereby a total of approximately five days were spent interviewing in each country. On continental Europe, travel agents and representatives of the Caribbean islands were targeted for questioning. The respondents were decided upon, based on a list obtained from the CTO, of the Western Europe representatives and tour operators. The original intent was fifty interviews from each country, due to limitations of distance, time and non-response, an average of sixteen responses per country was obtained.

The tour operators, travel agents and representatives were approached un-announced, (without an appointment), to minimise the refusal rate. Interviews were carried out in Paris (France), Madrid (Spain), Milan (Italy), Frankfurt, Düsseldorf and Bielefeld (Germany), Amsterdam and the Hague (The Netherlands).

5.8 THE DATA ANALYSES

5.8.1 Coding

The results were coded numerically before entry into SPSS, for analyses. Prior to coding, each question was analyzed, and the main variables were given a numeric code. Close-ended questions of single variables were analyzed based on responses, where each question was given a code name (variable) name. The responses were entered using a nominal scale, with yes or no, which indicated a positive or negative response to the variable in question, and one would be entered for yes, and zero for no. Questions with multiple scaling were coded using a nominal scale, with numbers one to five, where one was the best and five the worst. Each question was entered as a variable name, and the response ranking was entered from the choices of one to five, where only one response was allowed. A nominal scale is an identification of the observation using name only (Ott 1983).
Group codes were noted for open ended, where the responses were given a code (variable) name based on groupings. For example, crime and security issues and, hotel facility and service, were given two code (variables) names within the parameter of structural problems. Nine groupings were identified from the open-ended questions pertaining to structural problems in the Caribbean. Questions with multiple choices were coded similarly to open ended questions, where each possible choice was given a code name, and one and zero were used for yes and no respectively. An ordinal scale was chosen for open ended and multiple choice questions. Ordinal scales incorporated both nominal scales, and the ranking of observations from high to low (Ott 1983, Yamane 1970). Where appropriate, nine was entered for missing responses.

Demographic data were collected, and the questions were asked in such a manner whereby most responses had to be chosen from a range. Occupations were coded by groupings, according to the International Labour Organisation (ILO), where they were assigned number codes of one to six. Type of work was also grouped by ILO classifications, and codes were allocated in the same manner similar to occupations. Age distribution began at the age of consent (18 years) to over 70 years, and marital status was based on the four legal combinations, single, married, divorced and widowed. Income was given ranges, based on the lowest to the highest level of the average wage for a family of four. The highest educational achievements were recorded from the primary to doctoral levels. These categories were classified numerically in increasing order, and were entered as codes in accordance to their class, in order to be entered into SPSS.

The codes corresponding to each question on the questionnaire were programmed into SPSS, so that the numbers entered from the questionnaires would apply to the appropriate questions and variables. Each questionnaire was entered in the same manner, in the same sequence, based on the preprogrammed headings. Upon
completion of the data entry, the programme was ready for the simplest to the most complex analyses.

5.8.2 The Analyses

The analyses entailed the simplest frequencies to more detailed analytical study, and employed multivariate analyses. Firstly, before any detailed analyses could be done, a frequency list of the data was obtained, whereby the variables could be identified with the use of simple statistics: central tendency - mean, median, mode, and sum; and dispersion - variance, standard deviation, standard error, range, maximum, and minimum; and distribution - skewness. Central tendency encompasses numerical descriptive measures, which produced statistics while creating a mental picture of the position of the sample. Frequency lists of the demographic data was obtained, and compared with the population data to ascertain the sample representation of the population.

The variables were cross-checked for significance, by cross-tabulation, by which visits to each island are cross-classified by identifying problematic variables. This method reveals each island's specific problems, including the degree to which the problems were noted. Cross-tabulation of the problematic variables by islands, pointed out the percentage in relation to the number of persons that identified the variable, divided by the total who had visited the particular island. This was the first step in understanding the problems for each island, based on the number of persons that identified the problem.

The hypothesis relating to whether the problems on the islands affected the level of enjoyment of the visitors had to be tested, in a two way analysis. Two by two tables are necessary when computing cross tabulations, and in this case, enjoyment was cross tabulated with problem variables, to ascertain the degree to which the problem would adversely affect the tourism industry. Additionally, the problem variables were
analyzed (chapter 9) to determine their relevance to the Caribbean's economic
development. Cross-tabulation were calculated and analyzed, based on hypotheses
testing for independence, linearity, correlation, and association. The test of
independence is identified by Pearson chi-square observed value, which indicates
whether two variables are dependent on each other, at particular degrees of freedom
and level of significance. The chi-square distribution is a one-tail, upper-tail test, is
not symmetrical, and assumes the sample is normally distributed. Chi-square
distribution is defined mathematically as:

\[ \chi^2 = \sum \frac{(O-E)^2}{E} \]  

(5-7)

where:
- \( \chi^2 \) - the observed chi-square value
- \( \sum \) - the summation (total)
- \( O \) - the observed cell count
- \( E \) - the expected cell count

If \( (O-E)^2 \) is large, then \( \chi^2 \) will be also large. Hence, if the observed value of the chi-
square test is larger than the expected value, based on the confidence level, then the
null hypothesis of independence must therefore be rejected. And if on the other hand,
the observed value is less than the expected value, then the null hypothesis of
independence must therefore be accepted.

Suppose a coin is tossed 50 times (Yamane 1970), the chance of heads could be 20,
and tails could be 30, hence the null hypothesis would be:

\[ H_0: n_i = np_i \]  

(5-8)

where:
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\( n_i \) is the observed frequencies

\( np_i \) is the expected frequency in which \( p_i \) are the probabilities

In the case where \( n \) is 50, there is an equal chance that \( p_1 \) would be 0.50, and \( p_2 \) would be 0.50. Is this coin giving un-bias results? Hence, using Pearson's calculations (\( \chi^2 \)):

\[
\chi^2 = \frac{(20 - 50 \times 0.50)^2}{50 \times 0.50} + \frac{(30 - 50 \times 0.50)^2}{50 \times 0.50}
\]

\[
= 25/25 + 25/25
\]

\[
= 50/25 = 2
\]

The \( (r-1)(c-1) \), is equal to 2-1, which is equal to 1 degree of freedom, and at 5% percent level of significance, \( p (3.841) < \chi^2 < \alpha \): hence, \( \chi^2 \) is 2, which is not significant, as it falls below the stated parameters. We accept the null hypothesis, that the coin is unbiased. In two by two tables, the degrees of freedom are noted by the number of row \( (r-1) \) multiplied by the number of column \( (c-1) \). Chi-square is a test of goodness of fit only, and therefore could be considered a limitation of results, hence it does not show the strength of independence, ie. the degree of strength of the independent variable is unknown. Chi-square only tests how well the data fit within the research hypothesis.

A linear relationship shows dependency, which would imply that one variable relies on another, inferring that, for example, the level of enjoyment at a Caribbean destination would be affected by some specified problem at the destination. A linear function shows the relationship between these two variables, \( X \) (the independent variable) and \( Y \) (the dependent variable), and can be explained by the definition of a straight line. A graphical picture of the data would show a scatter diagram, and
straight line, called a trend or regression line. The regression line is drawn though the data (see figure 5-1), which would indicate a linear relationship. The definition of a regression line or trend line, in its simplest form, can be written as:

Figure 5-1

A Trend or Regression Line
\[ y = \alpha + \beta x \]  \hspace{1cm} (5-10)

where:
- \( y \) - the independent variable
- \( \alpha \) - the intercept
- \( \beta \) - the slope
- \( x \) - the dependent variable

and:

\[ 0 < \beta < 1 \]

The values for \( \alpha \) and \( \beta \) can be determined by the least square method. To do so, the equation must be rewritten to give:

\[ y = \hat{y} \]  \hspace{1cm} (5-11)

where:

\[ \hat{y} \]

- \( y \) - the predicted value of \( y \)

The vertical distance between an observed point on the scatter diagram, and the prediction line, which represents the deviation of the point from the predicted value of \( y \), written:

\[ y - \hat{y} = \epsilon \]  \hspace{1cm} (5-12)

where:

- \( \epsilon \) is the error, or the residual
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The method of computation for the least square chooses the prediction line that, minimises the sum of squares of the deviation of the observed values from the predicted values of y, or the sum of squares for error, given:

\[ \text{SSE} = \sum (y - \hat{y})^2 \] (5-13)

Substitute for \( y \) in equation (5-10) and include in equation (5-13); to be written:

\[ \text{SSE} = \sum [(y - (\alpha + \beta x)) ]^2 \] (5-14)

To find \( \beta \) and \( \alpha \):

\[ \beta = \frac{S_{xy}}{S_{xx}} \] (5-15)

and

\[ \alpha = y - \beta x \] (5-16)

where:

\[ S_{xx} = \sum x^2 - (\sum x)^2/n \] (5-17)

\[ S_{xy} = \sum xy - \sum x(\sum y/n) \] (5-18)

The test of linearity is based on a two-tailed trend line, or regression line with a Z test (large sample size) or t-test (small sample size). Pearson product moment correlation coefficient \( r \) value, at a given level of significance, or probability is a type B normed measure with a Proportional Reduction in Error (PRE) interpretation. A type B normed measure assumes values from -1 to 0 to 1, and a PRE interpretation increases the degree of association. PRE is an attempt to predict the dependent
variable more accurately, if information on the second variable (independent) variable is present. Therefore, the higher the PRE, the greater will be the degree of association between two variables.

When testing for the association and Pearson (r), if the observed t-value is larger than the expected value at the given level of significant, then the null hypothesis of no linearity must be rejected. There would be a linear relationship between the two variables in question, hence the research hypothesis of linearity is accepted. The value of Pearson product moment (Pearson r) dictates the actual degree of linearity, i.e. a value is given to indicate the linear relationship. Conversely, if the observed t-value is smaller that the expected value, the null hypothesis is accepted, that there is no linearity. Three assumptions are made with Pearson r test: (1) the two variables are measured on an interval scale; (2) the data are from a random sample, from a population; and (3) the scatter values of Y for the corresponding values of X should be uniform across the X values.

The degree of correlation or association, tested by Spearman’s Rho (ρ), is a type B normed ordinal measure of association. It is not concerned with the order of the ranks of pairs, but the actual ranks of association of the two variables. Spearman’s ρ attempts to derive the possibility of one variable ranking high, and the other also ranking high, or both ranking low. The equation is defined as:

\[
\rho = 1 - 6 \sum d^2 / n (n^2 - 1) \tag{5-19}
\]

Where:
- \(d\) - difference between pairs of ranks
- \(n\) - total number of pairs of ranks

Spearman’s ρ measures the strength of the association, thus the value between -1 to 1, gives the negative or positive correlation. If the observed value of the t-test is greater than the expected value, at a given degree of freedom, then the null hypothesis
of no association must therefore be rejected. Hence, the research hypothesis is accepted, and the level of association, indicated by rho, would be valid. Conversely, if the value is less than expected, the null hypothesis of no correlation must be accepted. The assumptions are: (1) All the n(s) are ranked on two variables; (2) few tied ranks on either variable exist and; (3) the sample size (n) is 10 or more. Spearman ρ can be used for prediction purposes, thus if a variable was ranked high, one could possible predict that it would be ranked high on the second variable.

At the beginning of each country’s analyses, an interpretation of the preponderance of pairs, ie. the rank results on the independent and dependent variables were ascertained. If the ordering of number of pairs where the same, results appear on both variables, then the pairs were therefore concordant, ie. high/high or low/low, given by ‘Ns’. If the order of the number of pairs were reversed on both variables, then the pairs were therefore discordant, ie. high/low, low/high. given by ‘Nr’. Last, if the order of the number of pairs were the same, then the pairs are therefore tied. Thus, if the values of PRE denoted by Ns and Nr fall in a particular category, the association can be determined:

\[
\begin{align*}
    Ns &= Nr \text{ (no association)}; \quad \text{PRE} = 0 \\
    Ns &> Nr \text{ (positive association)}; \quad \text{PRE} = \frac{Ns - Nr}{Ns + Nr} \\
    Ns &< Nr \text{ (negative association)}; \quad \text{PRE} = \frac{Nr - Ns}{Nr + Nr}
\end{align*}
\]

The PRE gives an indication of the association of the variables, when tested further, as would be given by results of Kendall’s tau-b, Gamma, and Somers’ d. Therefore, the results of, for example Kendall’s tau-b, would be interpreted based on the PRE association, ie. a positive association would indicate that there would be a positive association between the two variables.

Kendall’s tau-b, Gamma, and Somer’s d are type B ordinal measures of association, with a PRE interpretation. However, Gamma does not attempt to predict the actual
rank. It shows the rank of one independent variable on the dependent variable (level of enjoyment), and its affect on an independent variable, defined as:

\[ Y = \frac{N_s - N_r}{N_s + N_r} \]  

where:

- \( N_s \) - number of concordant pairs
- \( N_r \) - number of discordant pairs

thus, the relationship between \( Y \) and \( \text{PRE} \) is:

- \( N_s = N_r \) (no association); \( Y = 0 \) and \( \text{PRE} = 0 \)
- \( N_s > N_r \) (positive association); \( y > 0 \) and \( \text{PRE} = y \)
- \( N_s < N_r \) (negative association); \( y < 0 \) and \( \text{PRE} = -y \)

If the observed t-value (\( z \) or \( t \)) is greater than the expected value at a given level of significance, then the null hypothesis of no association must be rejected. The research hypothesis must be accepted, there would either be a positive or a negative association between the two variables. The gamma value also gives the \( \text{PRE} \), and the assumptions that must be made when computing gamma are: (1) the variables are measured at least on an ordinal scale; (2) the sample data must be cross-tabulated in a two-way table from a population; and (3) \( n \) must be 10 or larger.

Kendall’s tau-b and Somer’s d account for pairs with ties in the dependent or the independent variable, but Somer’s d does not include the independent variable (only the association between the dependent variables is assessed). Kendall’s tau-b is an ordinal, type B measure of association that accounts for pairs with ties on one variable or the other. Thus, if the observed t-value is greater than the expected value at a given level of significance, then the null hypothesis of no association must therefore
be rejected. The research hypothesis of association must be accepted, and the extent of positive or negative association will be determined by the tau-b and Somer's d observed values.

\[
\text{tau-b} = \frac{Ns - Nr}{(Ns + Nr + TD)(Ns + Nr + Tl)} \tag{5-21}
\]

and;

\[
D = \frac{Ns - Nr}{Ns + Nr + TD} \tag{5-22}
\]

The assumptions that one must make before computing tau-b and D are that: (1) both variables are measured on an ordinal scale; (2) the sample is random from the population of interest; and (3) n is 30 or more.

The variables that are significant would have been apparent from the cross-tabulations, where the variables can be used to derive a set of hypotheses for testing. Hypotheses testing employ the one-tail and the two-tail tests, based on a significant level, usually 2.58 or 1.96 confidence limits, with 99% or 95% (1% or 5%) confidence respectively. It allows the researcher the ability to make inferences, based on the sample at the given confidence level, about population parameters.

Examples of the aforementioned measures can best be explained with an example from the findings, with St. Lucia as a case study. St. Lucia was shown by 7.6% to have a problem with vendor hassling (a discordant preponderance of pairs, hence a negative association between the two variables). The responses were 55.6% stating enjoyable with reservations, 11.1% stating least enjoyable, 4.3% stating enjoyable, and 2.4% stating very enjoyable at the destination. The observed Pearson chi-square value of
20.26 at 6 degrees of freedom, and 0.002 significance, points to a dependent relationship between the level of enjoyment and vendor hassling. The observed value of Pearson R square is 0.26, with a t-value of 2.97 at 0.004 significance, which shows some linearity between the two variables. There is some degree of association (although weak), as Spearman Correlation observed value of 0.26, based on a t-value of 2.92, at 0.004 significance indicates.

The observed value of Kendall's Tau-b is 0.24, and Gamma (accounting for Proportion Reduction in Error) is 0.66, with a t-value of 2.35 show a fairly strong association. When one variable is held dependent and the other independent, the observed value of Somers' d becomes 0.18. But when the level of enjoyment is held constant, the observed value increases to 0.54, and decreases with vendor hassling, as the dependent variable is 0.11, with a t-value of 2.35. The empirical evidence suggests that there is a dependent negative relationship between the level of enjoyment and vendor hassling in St. Lucia. Vendor hassling is an annoyance, and diminishes the ability to enjoy one's stay at the destination.

The data were then subjected to more rigorous statistical methods, using multivariate analyses, including regression analyses, to determine the affects of the problems on the islands' development. Multivariate analyses simultaneously analyzed multiple measurements on each island, whereby more than two variables can be used as explanatory variables. Bivariate regression was done initially, to detect the strength of linearity between the independent (explanatory) and the dependent variables. First, a database was constructed for the 19 Caribbean islands in the study. The database included tourism arrivals, tourism receipts, number of hotel rooms, GDP, government spending, the percent of government spending to GDP, investment spending, population size, and rates of unemployment. Each variable was regressed as an independent variable, on each of the problem variables. This was done to determine causality, to attempt to draw inferences from the independent variables, as possible
explanatory variables of the problems, and as some indications of the islands' development.

Regression is based on the definition of a line, where the data points may form a trend, as was stated above. The level of correlation is deduced from the strength of $R^2$, (the coefficient of determination), and bar $R^2$ (adjusted $R^2$) which varies between 0 to ± 1. The closer that the adjusted $R^2$ is to ± 1, the stronger would be the linearity, and the likelihood that the variable could be used as an explanatory variable. Hence, its ability as a predictive variable is increased. The coefficient of determination ($R^2$) indicates the variation of the independent variable on the dependent variable. Hence, an $R^2$ of 0.90 of X (independent) and Y (dependent variable) shows that, there is a 90% variation in X to explain Y. Similarly, multiple regression is adapted from the simple formula in equation 5-10, written to give:

$$Y = b_0 + b_1X_1 + b_2X_2 + \ldots + b_nX_n$$  \hspace{1cm} (5-23)

where:

- $b_0$ is the constant term but does not help prediction
- $b_1$ to $b_n$ are the regression coefficients
- $X_1$ to $X_n$ are the independent variables.

Multiple regression indicates whether the several independent variables (X), can be used to predict the single dependent variable (Y). The assumption is made that the variables form a statistical relationship. The assumption is also made that there are equal variances among the variables, where at each level the predictors of the independent variables have the same variance, ie. homoscedasticity. The predictions contain errors (residuals), but the assumption is that the errors are uncorrelated. Test of correlation between the errors can be carried out by computing the Durbin Watson test (Yamane 1970).
Analyses were accomplished using the multiple regression method, where two or three independent variables were regressed on each of the dependent variables. Undoubtedly, a comprehensive approach is advantageous in problem solving, because causality is inferred from many areas. In addition, multivariate analyses were chosen, resulting from the unique ability to measure the effectiveness of a variable (Hair 1987). The analyses produced some explanations of the problems, after the findings have been arranged in a systematic and logical manner.

5.8.2 The Caribbean Data Analysis

As stated in the limitations section, it was not possible to visit the Caribbean islands to obtain primary or secondary data on the factors that are relevant to the individual islands' stage of economic development. Information obtained from the primary research, relevant to the overall economic and tourism superstructures were difficult to verify. Detailed studies however, obtained from the secondary research data collection relate to many aspects of the economies. Verification on problematic factors were only obtained from Antigua and Barbuda, which took the form of personal interviews, and general information gathering. Notwithstanding, data and relevant information applicable to most islands have been verified, based on corroborated references from the literature review.

The information from the primary research could have been cross checked with the islands' self-administered tourism attitudinal studies. However, very few islands carry out such surveys, and in general, information from the Caribbean by postal questionnaire proved difficult to be obtained. Nonetheless, the secondary research data collection proved to be an informative method, to gain the necessary data that could be used to discuss the findings. The secondary research acts as a reinforcement to the primary research, which is vital to address the research objective.

5.9 FORECASTING METHODOLOGY
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Forecasting is an application where events that occurred in the past, are used to predict the likelihood of an event occurring in the future. The method is useful as it facilitates planning, by reducing uncertainty. There are however limitations, as its accuracy is intrinsically linked to human judgement, where experience is a key element to successful forecasting. The knowledge of future arrivals render, both in the short and medium term, Caribbean businesses data to accompany formal planning. Short term is defined to be up to five year, medium term from 5 to 20 years, and longterm would be over twenty years. As the margin of error is amplified further into the distance one forecasts (Martin and Witt 1989, 1994), these techniques should not be applied to longterm forecasts.

Forecasting in this treatise employed the market size method (as was mentioned in the foregone section on the secondary research), based on demand (Witt 1994), where a time series database for a specified period is used to project future demand. A fourteen year historic time series from 1978 to 1992 was constructed, where forecasts were generated for eight Caribbean islands. To expand on the aforementioned reasons for choice of the Eight islands, they were chosen, based on the following criteria: the European Union (EU) visitors as a percentage of total tourism arrivals with more than 20% demand; and the economic organisations by main industry, location and political organisation. The stipulation of at least 20% was given, as the region’s demand is dominated by the North American market, and 20% of Caribbean demand originates in the UK, and 18% from Western Europe. The study was done based on an EU perspective, and the assumption is made that demand from the past would be an indication of future trends.

Dynamic regression was accomplished by using economic data such as, per capita income of the EU, population, EU price indices and airfare of long haul travel as independent variables, as stated by Martin and Witt (1989), and Witt (1994), to give:
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\[ X = f (Y, C, P, F) \]  \hspace{1cm} (5-24)

Where:

- \( X \) is the total visitor arrivals from the EU
- \( Y \) is the income per capita of the EU
- \( C \) is population
- \( P \) is EU price indices
- \( F \) is the airfare (longhaul)

and function of \( X (5-24) \) can be re-written in equation format to give:

\[ X = a Y C P F \]  \hspace{1cm} (5-25)

where:

- \( a \) is a constant

A comprehensive explanation of forecasting was discussed in chapter six, but to reiterate, forecasting is a useful tool for tourism and other enterprises. The decision to use forecasts in planning however, must be viewed where the benefits in relation to the costs justify its use. Forecasting usefulness, although a barometer of future demand, is constraint by unlikely events, and is static, hence ‘organisation must accept the inaccuracy of forecasts’ (Hogarth and Makridakis 1981:129). Some degree of subjectivity is used in the calculations of forecasts, and this could be a limitation of the method, as human judgment is subjected to error. Therefore, experience in forecasting is useful, and in addition, there needs to be ongoing variance analyses. Variance analyses would point out discrepancies that would affect strategic planning, which can then be assessed. Variance analyses of actual vis à vis forecast data points are critical, since it is difficult to forecast with certainty.

5.10 THE OECS ANALYSIS
Regression analyses were carried out using data of the Organisation of Eastern Caribbean States (OECS), by compiling a time series data of the national accounting variables, as was mentioned in the aforementioned. The intention of the analyses was to derive the main economic activities of the OECS islands. The study concentrated on these islands' data because of their unique monetary union within the Caricom framework, and the ease of access to economic data.

The variables used in regression were based on a list of equations, using disaggregated GDP components. The data were imported into SPSS, and multiple analyses was calculated for GDP, Consumption, Investment, and balance of trade. Regression analysis computed the constant \( (\alpha) \) and the coefficient \( (\beta) \), whereby equation to predict the future could be accomplished. Analysis of the study in chapter seven shows the practical use of data, using regression and econometric forecasting within economic analysis.

5.11 THE LIMITATIONS OF THE STUDY

The main limitation of the study is the lack of resources, thus a more comprehensive primary data collection could not be carried out on the continent and the Caribbean. The availability of funds would aid in a detailed data collection on the continent, over a longer period, where surveys could have been done at the continental airports, as was done in the UK, and would have enriched the study tremendously. This type of study would afford comparative analyses of the opinions of the different ethnic groups, including a less one-sided opinion polling of one major group of Europeans.

A field research exercise to substantiate the findings would afford, *inter alia*, less reliance on secondary data. Personal interviews and general research on the islands would have been invaluable, whereby the primary data from the supply would reinforce the findings from the demand. This information would be useful able to be
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compared with the EU field study. The inability to undertake field research in the Caribbean, may have resulted in the deficiency of possible explanatory variables. Additionally, relevant explanatory variables would have been useful in regression and multiple regression analyses, under which studies similarly to the OECS model could have been undertaken. Nonetheless, there remains considerable information relating to the economic and development issues of the region in the literature, and where possible, inferences were drawn from leading economic indicators. A detailed secondary resource data collection, although germane, cannot compensate for personal observations and interviewing, whereby primary data would be collected and analyzed to give empirical evidence.

Careful analyses of the data were undertaken in such a way, as to reduce the biases that may have arisen due to the limitations. A large UK sample may not necessarily be representative of the EU population, thus the industry sample from the EU was done to address, in part, this limitation. The problems noted by the UK industry are similar to those responses stated by the continental industry personnel. Further, the UK tourists' responses are analogous to the problems noted in the literature, thus a more thorough sample of the EU tourists may not add any further insight. A larger sample would undoubtedly improve the statistical significance of those problematic variables that had lower responses. Cross-country analyses aided in overcoming this limitation, as the frequency of responses by each category was noted. Undoubtedly a more detailed study on the continent would offer a more comprehensive approach.

The lack of Caribbean data meant that a full economic impact study (using input/output models) could not be done, as time and resources were major limitations. Resources would be needed to systematically collect primary economic data in the Caribbean, to be incorporated into a full income multiplier study. A full income multiplier study on selected islands, would lend a detailed study, whereby the reader would be given first hand knowledge of the degree of linkages within the economies. The identification of leakages would reinforce the hypothesis, concerning the lack of
maximum benefit of the region's main industry (tourism). It is the problem of benefits maximisation of tourism expenditure, which have given rise in part, to some problems noted from the surveys. An income multiplier study would have meant that, all the bases of the economies performance would have been studied.

5.12 THE RESEARCH QUESTION

The secondary research data collection was necessary, since it formed the basis of the background chapters on the Economic History of the Caribbean, the Present Economies, and the EU and its Implications. The secondary research afforded the background to the questions that were asked in the questionnaires, such as scaling in reference to the levels of enjoyment at the destinations. In addition, the format that the analyses would take, such as the two-by-two statistical analyses of the problem variables were derived from secondary sources.

The background chapters partially answered the question of economic development of the Caribbean, and the contribution of tourism development. The background chapter on the EU and its implications pointed out why the EU area was chosen, and why the area is pivotal to Caribbean trade. This chapter also addressed the question of the Caribbean Economic development from an EU perspective, by the review of the Caribbean's position within international trade, and the dependency on the EU for commodity, and increasingly, invisible exports.

The forecasting chapters answered the questions of the contribution of EU, and the question of economic development of the Caribbean. The first forecasting chapter pointed out the potential for increases in tourism from the EU to the Caribbean. Hence, international trade in tourism from the EU to the Caribbean is expected to increase tremendously in the future. The chapter following the forecasting of arrivals, discussed the OECS economies, where the utilisation of forecasting techniques were accomplished by regression analyses of the OECS economies only, since
comprehensive data could only be obtained for these nations. Forecasting of the OECS indicated the economies that are dependent on the tourism industry, and pointed out the economic sectors that are important to economic growth. These discussions contributed to the addressing the research hypothesis of Caribbean economic development and the role of tourism, albeit on only the OECS nations.

The primary research answered the question of economic development in the Caribbean from an EU perspective. This was conducted by a questionnaire format of the tourism industry, that sells tours and package holidays to the Caribbean, from the six EU countries that have traditional and present trade links with Caribbean. The primary research encompassed a questionnaire research, and the use of data from the secondary research data collection, whereby leading economic variables were utilised in regression analyses of the findings. The variables were used in regression, in order to derive explanatory variables to explain the variables that were detected during the primary research.

The methods used in this treatise formed a comprehensive approach to answer the research question of Caribbean economic development; whereby the background information and forecasting of tourism arrivals and the OECS economies, were obtained from the secondary research, and the findings from the primary research offered some answers. The contribution of tourism development was derived from discussions of the secondary research, and the forecasting of future tourism arrivals attempt to answer that issue. The research objective from the EU perspective was first discussed in the background chapter on the EU and Caribbean trade, and the primary research sample was obtained from within the EU.

5.13 CONCLUSION

The methods used to conduct the research afforded some answers to the research question. The research question pertains to Economic development problems in the
Caribbean, and the contribution of tourism development, whereby the EU would point out the development problems. The methods chosen to answer this question commenced with a secondary research, where background readings afforded the information to grasp the subject areas. The research was followed by a primary research of tourists in the UK, and of the tourism industry who sell to the Caribbean from six EU countries. Interviews for the primary research method of the industry were carried out in Paris (France), Madrid (Spain), Milan (Italy), Frankfurt, Düsseldorf and Bielefeld (Germany), Amsterdam and the Hague (The Netherlands), and the UK. The data were analysed with use of forecasting, and regression to obtain forecasts of secondary data; and statistical methods, whereby dispersion, location, and cross tabulation of primary data were done. Regression analyses using variables obtained from both primary and secondary data sources were done.

The pilot study tested the research sample, to ascertain if the correct questions were posed to exact primary data. The primary investigation was accomplished in a manner that was intended to reduce bias, based on a random sampling of the identified target market. Analyses of the primary data determined the statistical significance of the findings, and identified the problems which pertained to the economies, and the tourism superstructure. Further analyses using variables obtained during the primary and secondary research were done, which suggested explanations and the degree of predictability that independent variables could draw from the study. Econometric forecasting and regression added further insight into the demand and supply sides of the economies. These were relevant to the economies at large, and the tourism sectors in particular. The limitations of the study suggested that, there are many areas in need of further research.

The various methods used to address the research question were necessary in order to analyse the various aspects of the research objective. The secondary research was used to obtain detailed information of the region’s economic development in a historic sense, including its current stage of economic development. The historic and present
links with the EU, and why the EU area is important to the Caribbean regarding trade and aid; and the reasons to explain the choice of the area as a focal point of the study were outlined with the aid of the secondary research. The secondary research data were used to analyse the contribution of tourism development to the nations. This was accomplished by pointing out the contribution of tourism to the economies, by use of analysis of the sector's contribution to GDP.

The secondary research aided in the preparation of the questionnaire, which was used in the primary research whereby the correct questions to derive the relevant information were accomplished. In addition, the secondary research data collected resulted in obtaining the variables that were used in forecasting, and regression analyses of the economies. The forecasting chapters were instrumental in outlining the potential of tourism demand from the EU on one hand, and in analysing the economies of the OECS nations in the Caribbean, including pointing out the role of tourism in the economies on the other. The forecasting chapters, including the primary and secondary research, outlined the contribution of tourism development in the economic development process of the Caribbean.

The primary research offered a sample survey of the EU, whereby the perspective of the EU regarding economic development could be ascertained from primary research, and not only from the secondary resource data collection. The primary research offered empirical data on the economic development situation in the Caribbean, from the demand (the UK population who travels to the Caribbean, and the EU industry who sells to the region). The secondary research data were used in analyses that are juxtaposed to the primary research, as well as, in tandem, in analyses of the problem variables by the use of regression analysis, which were used to explain issues raised from the primary research.

The use of input-output models, and the derivation of the income multiplier are comprehensive approaches to economic development. It is within these approaches
that the degree of backward linkages that exist within an economy could be discerned, exercises that this study could not accomplish, due to the limitations of data, time, and financial resources. The following chapters delineate the uses of forecasting; including the OECS model in chapter seven, which shows one method whereby the economic impact of tourism expenditure and its future impact on the islands' economies could be determined.
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OECD (1990), Development in individual countries: Italy, Paris.


OECD Journal Outlook (1991), Development of individual Countries: Greece, Iceland, Ireland, Luxembourg, June.


6 DEMAND FORECASTING AND ANALYSES, THE PROJECTIONS FOR CARIBBEAN TOURISM GROWTH TRENDS

6.1 THE NEED FOR FORECASTING: AN OVERVIEW

The contribution of tourism to the Caribbean’s economic development can only be a reality if the industry is viable. The tourism industry can only be seen as viable if tourism demand is maintained in some cases, and increased in others, until the carrying capacity of the destination is determined. The following discussions point out the likelihood that tourism demand will be increased in the future from the EU, with the aid of forecasting techniques. Increases in demand should in turn result in, ceteris paribus, higher levels of economic development in the Caribbean.

Forecasting is the calculation of estimates into the future. Although some of the techniques in formal Forecasting and Planning have been developed and applied since the 19th century, the varied uses were largely ignored until recently (Hanke & Reitsch 1994). The techniques ‘have risen to prominence in business, non-profit, and public organization within only a few decades. Furthermore, annual expenditure related to Forecasting and Planning now involves billions of dollars’ (Hogarth and Makridakis 1981:115). In addition, with the introduction of microcomputers, sophisticated techniques have continued to be developed. Businesses throughout the world continue to realise that forecasting is a vital application for enterprises, where the projections of new business opportunities are important. In contrast, some small countries are only recently utilising these techniques. In a dynamic world, where businesses are functioning in a global marketplace, forecasting future demand is increasingly important to minimise uncertainty.
The use of forecasting is indeed a planning tool for all sectors of industry, but the flaws that are commonly associated with the alternate methods must be understood. The forecaster must accept that some limitations to forecasting exists, that precise future predictions are virtually impossible (Starbuck and Miliken 1989). The objective of the forecaster would be to minimise error, ie. forecast results should have minimum variations from the actual occurrences, which would lend credibility to the procedures.

The obvious concerns of many would be why forecast at all, given the high levels of uncertainty. The fact remains that though forecasting has been criticized, it is better to have some estimate of future demand than none at all. In the absence of some idea of the future demand for goods and services, businesses and countries will be unable to plan adequately, thus failing to maximise their profit margins. Prior to computers, managers and economic planners used intuition, judgement and ‘gut feeling’ as forecasting methods to determine a sense of the future of the organisations or country growth potential. There is a danger that computers alone may be seen as the only tool needed for forecasting. However, good judgement, knowledge of the market or economy and sophisticated computer models must be blended uniquely, therefore avoiding over reliance on either method. The user of the forecasts must exercise sound judgement and have industry or country related experience. Increasingly today, a thorough understanding of the dynamics of the world’s marketplace is needed to plan adequately and accurately.

Forecasting is not only specific to planning, but also vital to decision making. Executives in upper management might need to decide the feasibility of venturing into a new marketplace. Macroeconomics variables in the new market place, such as unemployment rates, gross domestic product (GDP), and population growth rates can be used as the forecast variables. Since firms are integral components in a nation’s output, their ability to sell in new markets will boost the nation GDP. National Government tourist offices (NGTOs) may have similar tasks as business firms to
generate demand from an area, and usually with the additional constraint of limited budgets. Hence, optimisation of promotional budget spending would be a consideration, which allows for a narrower margin of error. Forecasting would be an important tool whereby decisions to increase promotion in a given area would be justified, given future projections.

Medium range forecasting, such as a 10-20 year period, would give top managers an idea of the company's viability. In the domestic and international market, middle management might be concerned with short run forecasts for operational purposes. Operations may concern issues, such as the feasibility of increased advertising based on sales projections for one year in the future, which would be derived from short run forecasts (one to five years). Short run forecasts are useful to middle managers, given that it can be used to decide immediate strategies.

It is important to note that forecasting annual changes in demand for any industrial activity is essential for strategic planning. But the definition of strategic planning must be clearly understood, thus, strategic planning must be accompanied by strategic thinking based on the implementation of change. Hence, the adequacy and accuracy of the forecasting cannot be reinforced enough, as accurate uses of forecasts require "... insight, creativity and synthesis..." (Mintberg 1994:227). Nonetheless, the adaptation of forecasts to the decision making process enables sound planning that can be used for all areas of business, by marketing, production, and finance departments. Forecasting relates to distance in time, relating to present decisions, as it gives to the user valuable information about the likelihood of the occurrence of future events.

Macroeconomics forecasting is a tool that governments would find particularly useful, as it gives indications of the countries' economic performance. The projections can be effective in determining growth sectors and, those that might be dying. Economic expansionary and recessionary periods, and the identification of social and structural deficiencies are much more difficult to predict however. Analysts' use of forecasting
techniques can point to the factors that are mostly responsible for the growth of GDP. The international fora, due in part to the increase in Multinational Corporations (MNCs) and advances in technology, have created economies that are intrinsically linked (Brandt 1980). Adverse changes in one economy or resulting from cartel’s business decisions may result in spiral downward effects in the world’s market places. The actions of one government or group are virtually impossible to predict, but could have major ramifications to the world’s businesses. A good example is the oil crisis of the early 1970s, which resulted in significant unplanned for downturn in the oil-importing economies sui generis, and tourism destinations in particular. Tourism based economies, such as the Caribbean were doubly affected by having to pay substantial increases in oil prices for domestic uses, and less tourism demand, due to the sudden increases in plane fares. These one time, ad hoc events cannot be predicted, and are significant limitations to forecasting future economic activity.

6.2 CARIBBEAN TOURISM DEMAND

The world’s economies, and the Caribbean in particular are based largely on the service industry (Riddle 1986, Illeveris and Philippe 1993). The utility of forecasting is perhaps more germane to services industries because of the intangibility of the products, and the perishable nature of most services. Accurate forecasting lends efficiencies by reducing waste of resources, a necessary function to decision making, by which concretisation is possible. The inability of countries to keep abreast with trends in the competitive markets will render their industries inefficient and obsolete. Projecting to increase the supply of existing industries, or the introduction of the new is only attained by some method of forecasting. Governments must be vigilant in their relentless pursuit of economic well-being. The Caribbean is no exception, and forecasting and other demand projections’ techniques are needed, not only to predict possible tourism demand, but to aid in overall viability of the islands’ businesses.
Tourism is novel within the services sector, as it is an activity that encompasses a wide range of services. The various sectors that make up the services industry are difficult to quantify, as outputs are 'invisible'. Conversely, agriculture and manufacturing sectors produce tangible goods that are easily quantified. It is the very fact of intangibility that reinforces the discussions of forecasting, as an important tool in tourism related businesses, which aids in ceteris paribus, the maximisation of the success of enterprises. The accuracy of forecasts is important in any industry, but it is especially paramount in the tourism sector because of the perishability factor. The airline, train seat or hotel room that is not sold is revenue lost forever, it cannot be inventoried and sold at another time.

The Caribbean’s economies have undergone structural changes resulting from the arrival of the mass travel. The tourism industry is about forty years old, by which large increases in arrivals have occurred without systematic planning. In 1990, there were approximately 10.4 million visitors to the region, a world share of 2.3% (EIU 1992). Demand escalated in the latter half of the 1980s, at 17% higher than world tourism. The nature of tourism is such that, needed increases in hotel rooms cannot be adjusted in the short run. The result would be mean that, product substitution, island substitution or perhaps regional substitution might occur, due to the scarcity of supply. If there is an excess capacity, then the factors of production would lay idle, which would result in loss of income. The need for tourism planning and development on all of the Caribbean islands is paramount, under which short and long-term planning decisions are adjusted to changes in the market.

Forecasting is especially important for those islands that are in the earlier stages of economic development sui generis, and tourism development in particular, (the Windward Islands). Projections would facilitate planning of the industrial sectors, which would help the decision making process. Since financial resources are limited, the effective use of promotional budgets is essential to minimise waste, hence, forecasting of future trends in, for example, tourism arrivals and expenditure, would
indicate future demand. If future trends are known, then policy makers could therefore decide whether to provide funds to improve areas of the economy that would maximise the effectiveness of the industry. Efficient industries would result in maximum economic benefits, which would increase the likelihood that economic development of the countries in questions is achieved.

The more advanced Caribbean destinations also need however, where forecasting is utilised for strategic planning. These destinations might be faced with unsuspecting decreases or increases in demand, which would have adverse effects on profit margins. Forecasting would be advantageous to aid decision making, and should be an integral part of the mature destinations' tourism planning. Destinations that deliberately restrict the number of tourism arrivals such as Bermuda, might be inclined to forego tourism forecasting. Forecasting techniques nonetheless, would point out the direction that arrivals are likely to follow. Additionally, it can be employed in other industrial sectors in Bermuda that the government deems important for economic growth.

The implication of forecasting usage in Caribbean tourism is not to concur with the Caribbean regions usual single minded pursuit of higher arrivals rates. The maximisation of higher rates of per capita spending, and low density tourism would result in less stress on the islands' fragile ecological systems. Additionally, there is greater potential to create intersectoral linkages, that would increase the multiplier effect (Archer and Fletcher 1989, 1990). The mass market, high density type of tourism sector has exactly the opposite effect. Forecasting has been used to aid in diversifying into other industrial sectors ipso facto, the economic reliance can be shifted away from mass tourism.

As tourism is a undoubtedly a job creator, both directly and indirectly, it would effectively aid in alleviating some of the unemployment problems of the Windwards islands in the Caribbean region. Critics of the sector however, point to tourism's
creation of low skilled and relatively low paid work (Bélisle 1984, Bryden 1973, Eber 1992, McElroy and de Albuquerque 1990, Momsen 1986, Potter 1993). Apart, the high unemployment levels of the windward islands (which are traditionally agriculture based) need addressing. Tourism demand might not be able to alleviate all of the labour problems of the region, as economic restructuring, education and training, and will have to be taken into consideration. Nonetheless, where the potential for low density, environmentally aware tourism is possible, such as in Dominica (Weaver 1988), greater management of demand is warranted. Forecasting could be used in 'demand' management, as large numbers of eco-tourists would be a potential environmental hazard to the island’s rainforest.

Demand forecasting is an additional tool that can be used in general, by the Caribbean tourism sectors. The foreknowledge of future demand can strongly influence the ability to prioritise and market, to those area that would bring optimum benefit. This useful information would provide hotels and other enterprises in the industry, with useful information for effective strategic decision making. Forecasts provide tourism managers with valuable knowledge, under which increases in supply, resulting from increased demand could be ascertained and the necessary provisions can be made to maximise revenues. The use of present technology sui generis, renders higher productivity levels in industries that supply tourism products.

Forecasts that predict figures that are too high would result in high inventories through slow turnover, where invested capital would realise low returns on investment (ROI). Conversely, too low forecast calculations would result in firms losing the opportunity to increase revenues. It is quite difficult to create excess capacity in the short run, due to an unsuspecting increase in demand. The tourism industry in the Caribbean countries needs forecasts to ascertain supply projections, that would be equated to demand. Local suppliers may find it difficult to increase output in the short fall to meet an excess industry demand. A significant increase in demand during the peak season of a given year would result in increased importation, which set
patterns that may be difficult later to adjust. High imports are endemic to the Caribbean region, thus any useful tool that discourages this practice should be welcomed. High importation translates into leakages that reduces the income multiplier, *ipso facto* lessening the tourism economic impact, by that contributing less to economic growth. Forecasts are essential prescriptions to NGTOs, who would advise the industry as to the potential demand of the subsequent tourist seasons, thus reducing errors in planning.

### 6.3 FORECASTING METHODOLOGY

The choice of methodology used to calculate forecasts, is determined, in part, by the purpose that the forecasts are intended, and the amount of details that the manager requires. In predicting future tourism demand for example, the market area or segments, month, season, a combination of these formats can be used for the computations. The time period which one is forecasting is a consideration, as well as the availability of the data that is needed. It is important to point out that, 'like most empirical research, forecasting involves drawing inferences from observed events' (Pant and Starbuck 1990:434). The time period might be in the short, medium, or long term, but the shorter the time period the greater the degree of accuracy that can be attained (Hogarth and Makridakis 1981). Errors can be reduced in long term forecasts if appropriate methods are employed. Data that contain immovable biases and are insufficient in details, will give inaccurate results no matter how rigorous the forecasting techniques. Thus, qualitative techniques should be employed in lieu of quantitative. When the short term period is being forecast one normally builds up from available details, while in the long run, the emphasis is on forecasting overall levels of demand, then putting them into segments. As Archer (1987) has postulated, the short run is the "bottom-up" approach to forecasting and the long run, the "top-down".
Tourism forecasts are particularly difficult to calculate. It is subjected to errors due to the multivariate nature of the industry, since many variables affect demand particularly in the long run. Forecasts must consider economic, political, technological, and competitive factors, and natural and other disasters that might affect future demand. Forecasts assume that the environment in the past that was conducive to tourism demand will remain. A deviation from the trend could result, as a particular bad hurricane could occur, which would result in a temporary decrease in demand. The reduction in demand is considered ad hoc by forecasters and this event is included into the forecast.

There are two broad groups of forecasting methodologies, qualitative and quantitative. Qualitative forecasting techniques are useful, but rely on experience, human judgement and intuition (Hanke & Reitsch 1994). They commonly include the Delphi Method, growth curves, scenario writing, market research, and focus groups. Quantitative techniques will be the main focus of this treatise, as it is the method of choice for forecasting future Caribbean tourism demand, and the economic viability of the OECS. Quantitative methods are both statistical and deterministic, and will be discussed in some details later. Statistical types of forecasting include two approaches; one based on a set of assumptions by which the data can be decomposed into components, and a forecast is made by the combination of projections of the individual components. The components in question would be trend, cycle, seasonality, and irregularity. Secondly, the econometric time series models and Box Jenkins methodologies, based on statistical theories, do not assume separate components for data. Deterministic or causal techniques identify and determine relationships between independent and dependent variables. Regression and multiple regression models are popularly used techniques.

Tourism forecasting can also be computed by employing two methods, using; (1) market size, i.e. total demand, and (2) market share, defined as the share of the total market for the product (Witt & Moutinho, 1989, 1994). The market size method is
useful when forecasting tourism demand where arrivals or expenditure figures are used as data. Analytical approaches that employ more rigorous methods include the econometric approach. Historic data and the future values of the forecast variables are obtained by using forecasts of influencing variables. These are used in conjunction with the estimated relationship that produce the estimates.

Modelling of market size forecasting has many stages, where one employs a systematic approach to the task. First, one can examine the variables influencing demand for international tourism; then, proceed by deriving a market function as given:

\[ y = f(x_1, x_2, \ldots, x_k) \]  

where:

- \( y \) is the demand in a given Caribbean destination for international tourists from a given origin, the dependent variable.
- \( x_1, \ldots, x_k \) are the influencing variables, the independent variables.
- \( f \) denotes some function.

This approach uses regression analyses to estimate the quantitative relationships between the variables to be forecast, and the causative variables. The results would give several statistical measures of accuracy and significance, to the forecasting equations. However, it may be inappropriate for cases where data or the causal relationship variables are limited.

6.4 THE VARIABLES OF FORECASTING

There are many variables that influence demand in tourism forecast, thereby showing the complexity and the difficulty of accurate tourism forecasting. The influencing variables are the set of determining forces, *inter alia*, income, own price, substitute
Chapter 6: Demand Forecasting and Analyses, the Projections for Caribbean Tourism Growth Trends

prices, exchange rates and promotional activities (Martin and Witt 1988, Witt and Witt 1992). Dummy variables are included in econometric models to explain international tourism demand, if an ad hoc event occurred. They are included in forecasting to account for an event that may influence demand at any given time during the period (Witt 1994), but it is not a constant influential factor as, for example, income. The trend factor must be included, as this shows the changing tastes concerning the popularity of a particular destination over the period.

Generally, international travel would have a positive demand elasticity, as any reduction in price would translate into an increase expenditure. One could argue nonetheless, that in the industrial world, travel has become an inelastic good, where the trend has become at least one foreign holiday a year, per person. This factor must be accounted for when estimating tourism forecasting, as it represents a trend factor. Macroeconomics variables, such as GDP, employment, and population are key variables which could be used in multivariate analysis, to explain the rise in demand for international travel. A lagged dependent variable can be included in the tourists demand function to account for supply rigidities. As supply cannot be easily altered in the short run to meet sudden demand increases, supply rigidities exit in the tourism industry.

Income is usually included in the demand analysis as an explanatory variable \((x)\), denoted in model 6-1, by using real income per capita of country of origin. This is only applicable when holidays are taken as an option in themselves, with no other motivation. If the motivation to go on a holiday is to visit family and friends, there is another motivation than the holiday, thus personal disposable income must be used as the explanatory variable. The potential of business arrivals can be denoted by the use of a more general variable, such as, national income (GNP or GDP) of the originating country, since the economic climate of the generating country would determine the increase in outflows of business tourists.

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There are two types of costs in international tourism, one is transportation costs and the other living costs at the destination. These costs must be included in the demand function (model 6-1), as influencing variables, denoted as real costs value in country of origin currencies valued to the US dollar. In international forecasting for tourism, the use of the US dollar as the denoted currency reporting figure enables comparability, and lessens confusion that might arise from too many exchange rates. The cost of living can be measured in the destination's currency if possible, or by using appropriate proxies. Consumer price indices are expressed in real terms in the country of origin's currency. Exchange rates are determining factors of holiday travel, and should be included as one the explanatory variables that might affect demand. A destination would be deemed too expensive if the cost of currency rose, as it would inadvertently affect the living costs at the destination.

Prices of substitutes may be important determinants of demand, as suggested by economic theory. The substitution of prices in travel costs and living costs might also affect demand of international tourism. It is necessary to fit these substitutes into the calculation, by including weighted averages to make allowances for these substitutes. A weighted average substitute for transport cost variable, and a weighted average substitute for tourists' costs of living variable should be included in the model. The weights should reflect the relative attractiveness of the various destinations, as it indicates preferences, which would be based on previous market shares.

The promotion of a tourism destination is key to consumer awareness, and is one factor that might affect the popularity of a destination. It is not surprising that national government tourist offices (NGTO's), spend large sums of money on promotion in tourists generating countries. Promotional expenditures are therefore explanatory variables and must be included in the model, expressed in real terms in the currency of the country of origin. Obtaining the data is the major problem, with the inclusion of promotional activity, including the impact of advertising on demand in a given and subsequent periods. The return on advertising (ROA) could be
calculated to obtain the increase in revenue, as well as the increase in demand, so that these figures could be included in the equation. The ROA is the effective increase in sales (revenues) due to promotional campaign. Thus if US$100,000 was spent on promotion, and the increase in arrivals that resulted was 10,000, the ROA would be the revenues gained from the additional 5,000 tourists divided by the money spent on the campaign. Hence, if the tourists spent an average of US$1,000, a total of US$5 million be the additional revenue, which means that the ROA would be 50. Hence, for ever US$1 spent on promotion, arrivals would increase by 50 persons, or revenues would increase by US$50,000. It would be difficult to include these figures on the Caribbean analyses, due to problems of data collection, as NGTOs are frequently unaware of these figures.

The cost of producing forecasts is a significant consideration in the use of one method over another (Granger 1989). Smaller Caribbean islands may not be in the financial position, or may be unwilling to invest in forecast analyses that have to be prepared from a nongovernmental agency, because of limited resources. Nevertheless, the use of forecast by the economic development ministry is an essential element in the planning of economic sectors. If the feasibility of forecasting is an integral part of planning for developing economies, such as the Caribbean, then a long-term cost-effective option would therefore be the utilisation of forecast packages by economic ministries. The inclusion of in-house implementation would become a permanent feature of the planning and development processes of Caribbean economies.

Managers of small and medium size enterprises (SMEs) which epitomise the tourism industry (other than hotels), generally have budget constraints. SMEs are usually unable to afford the forecasts that could render their enterprises more lucrative. Therefore detailed quantitative methods with very sophisticated, computer models might have to be foregone for a simpler approach. Simpler approaches should be used as, ‘... simplicity usually works better than complexity. Moderate expertise proves as effective as great expertise’ (Pant and Starbuck 1990:433). The use of
simpler and cheaper quantitative methods could also provide the desired result, and where necessary these should be used to curtail costs. Employing a combination of both quantitative and qualitative methods to ensure favourable results would be more affordable, and might be a more successful approach for predicting future demand. This approach is rarely used however, although some National Government Tourist Offices (NGTO's) and airlines have, to a certain extent, made use of both of these two methods for forecasting (Archer, 1987, 1988). Nonetheless, the accuracy of some forecasts depends on detailed mathematical and econometric methods. It is unfortunate that firms that are most in need of forecasting, are usually unable to use it effectively because of cost constraints.

6.5 QUANTITATIVE ANALYSES

Quantitative techniques are varied, ranging from the simple to the most sophisticated models, including, time series, causal and systems models, and non causal ones. The use of one or more methods in combination, depends on the degree of sophistication of the models, time frame, and costs. Causal models are more expensive and provide no assurance of accurate results. Additionally, these methods require considerable user understanding to develop the correct relationships.

Times series models use past precedence to project forward, while ignoring the determinants of demand. Abrahamson (1990) did calculative studies using time series data, which offered discussions pertaining to the use of management technologies. Time series assume that factors from the past, which were explanatory variables, would also affect the demand in the future. This type of model uses regression analyses to extrapolate into the future, and although the predictions could be accurate, the reasons for the predictions could be missing. Causal models do account for the reasons of demand, by identifying the explanatory variables and by analysing their separate effects upon the variable under consideration (Archer 1987, Witt and Witt 1992, Witt 1994). But, the literature seems to suggest that, causal models
performances were less reliable than non causal ones (Bernard 1971, Martin and Witt 1989, Witt and Witt 1992). The predicted changes of the causal factors, such as income and transportation costs are used to derive the forecast, by calculating the impact on demand of those causal factors. Non causal quantitative techniques employ the simplest trend extrapolation to complex mathematical algorithms, where some approaches are univariate and others multivariate.

The univariate approaches relevant to this discussion consist of 6 methods; simple trend projection, arithmetic moving averages decomposition analysis, exponential smoothing, trend curve analysis, autoregressive models, and decomposition methods. Multivariate regression demand analysis involves spatial models and growth scenario models. Martin (1987) and Martin & Witt (1987, 1988), Witt (1994) found that the most widely used univariate times series forecasting techniques were the arithmetic moving average and exponential smoothing. The popularity of moving average might be resulting from its cheapness and ease of use. In the simple trend projection method, forecasts can be calculated by simple extrapolation of the principle trends. This can only be done where the data is deemed regular, and linear, whereby exponential and cyclical relationships curves indicate trend. Caution must be taken when projecting forward, as relationships hold only for a short period. It is advisable that with simple trend calculations, forecasts be done only for a very short time frame. The variant of trend projection used for the long run forecasts is suitable because of its S-curve shape. The projection is used to analyze past demand over a period of several years, thus making various assumptions about the future growth of demand. Forecasts can be accomplished, by using mathematical relationships with the trend projection disclosed from the past demand.

The assumptions employed in the trend projection method render it weak, therefore, this method should be used only as a guide to the overall forecasts, and results should be analysed together with other quantitative methods. Arithmetical Moving Averages should be an adjunct to other methods, and results should never be used on their own.
Arithmetic moving average uses previous data, where the data are summed and divided by the number of observations to obtain the average. The new data points become available in the set, the oldest data are removed and the new averages are calculated until the end of the data. A moving average with seasonal data, with seasonality of s periods can eliminate the seasonal effects, by calculating a moving average with s periods.

The moving average forecast for periods is \( t+1, t+2, \) and so on, is given:

\[
F_{t+2} = F_{t+j} = \frac{\sum x_t + x_{t-1} + \ldots + x_{t-s+1}}{s}
\]  

(6-2)

where:

- \( F_{t+j} \) is moving average forecast of \( x_{t+j} \) (ie. the forecast for \( j \) periods ahead).
- \( x_t \) is value of a time series in period \( t \)
- \( x_{t-1} \) is value of a time series lagged on period
- \( s \) is length of seasonal cycle.

A moving average (model 6-2) attempts to estimate the nonseasonal portion of a time series. However, as seasonality is a symptom in tourism data, this would result in a lag, as the data would contain steps, linear or cyclical trends. There are many methods to eliminate the steps of trends; (1) by seasonally differencing the data prior to forecasting, a technique in its simplest form which is not accurate enough to be used as a reliable forecast; (2) by the use of logarithmic transformation of the data series which can be made stationary in the variance, and; (3) by simple and adaptive smoothing techniques, which are only useful if the data series in the variance are stationary, and are not exhibiting trends or seasonality. Nonetheless, adaptive smoothing techniques can accommodate unexpected upward or downward steps in a series.
Exponential smoothing or exponentially weighted moving average models provide a relative set of forecasting methods, that tend to perform well practically (Saunders et al 1987), is cheap to compute, and are well suited to high volume applications (Witt & Moutinho, 1989, 1994), Witt 1994). It is in-expensive to re-estimate each period, providing the previous periods parameters are given as a starting point where better forecasts are obtained. The simplest method is simple exponential smoothing, but more complicated methods include, Holt-Winters exponential smoothing and Brown’s double exponential smoothing. Exponential smoothing is not suitable for medium and long-term forecasting, largely because of the compound growth apparent in geometric progression. Nevertheless single exponential smoothing attempts to reduce forecast error, by correcting last period’s forecast by a proportion of last period’s error, given:

\[ F_{t+1} = F_t + K (x_t - F_t) \]  \hspace{1cm} (6-3)

where:

- \( F_{t+1} \) is the single exponential smoothing forecasts of \( x_{t+1} \), (the forecast for one period ahead)
- \( K \) is a constant, such that \( 0 < K < 1 \).
- \( x_t \) is the value of a time series in period \( t \).

Model 6-3 states that the forecast for period \( t+1 \) is given by the forecast \( F_t \) or period \( t \), plus a proportion \( K \) of the forecast error, for period \( t \). Rewritten to give:

\[ F_{t+1} = Kx_t + (1-K)F \]  \hspace{1cm} (6-4)

Estimate a forecast \( F_1 \) for the first value of the time series \( x_1 \), and choose the ‘best’ value of \( k \) to fit the model. First, take \( F_1 = x_1 \), then try to generate the forecast by using model 6-3 for the whole time series. Use a number of values of \( k \) that give the lowest forecast error, such as absolute and mean square error.
The single exponential smoothing model can be modified by using adaptive smoothing, by using the value of these parameter changes in accordance with the forecast error, instead of using a constant value of k. The value of the forecast k in model 6-4 is set close to 1 when the forecast error is large. When the error is small, the value is set close to 0, where the forecast remains unchanged. The k value is set to the absolute value of the ratio of the smoothed forecast error. If the forecast shows consistent under (or over) forecasting, the ratio will be nearer to 1, if inconsistent, nearer to 0, following:

\[
F_{t+1} = k_t + 1x_t + (1-k_t) F_t
\]

\[
K_t = \frac{SE_t}{SAE_t}
\]

where:

- \(F_{t+1}\) is the adaptive smoothing forecast of \(x_{t+1}\)
- \(x_t\) is the value of a time series in period t.
- \(K_t\) is the smoothing constant in period t
- \(SE_t\) is the smoothed forecast error in period t.
- \(SAE_t\) is the smoothed absolute forecast error in period t.
- \(K_{t+1}\) is the forecast one period ahead

Double exponential smoothing (Brown’s model) can accommodate time series containing a trend, it produces forecasts containing both a constant level and a linear trend term. It is better employed in forecasting than simple exponential smoothing, where the series has been transformed to render it stationary in the mean. The other double exponential smoothing technique, Holt (1957)-Winters (1960) model, is more applicable where seasonality exists, than Brown’s model where the series contain a constant level, a linear trend, and seasonal factors. Winkler and Makridakis (1983) and Clemen (1989) suggested, based on analyses that, the average of forecasts generated by many (five or six) methods usually proved more accurate. Differences
in models' accuracies nonetheless, must 'represent random errors', where 'forecasting tend to mistake noise for information' (Pant and Starbuck 1990:442). Noise here refers to forecast errors.

Box-Jenkins Methods (1970) consist of two parts, the basic approach, which identifies the form of the model that expresses relatively well the relationship between the values of a series of data through time. Then by using the model, one can calculate numerical values for these relationships. The model is purpose-built to fit the data, using a systematic process to allow identification, estimation, and diagnostic checking (Archer, 1987). This technique is adequate for short and medium term forecasts, and its simple approach can be expanded to adapt some causal factors, by use of a transfer function, which includes the movement through time of one or more variables that might affect the one in question. Forecasts of Caribbean tourists arrivals relate to real disposable income in country of origin, where the transfer function in this case would be the use of time lags. Time lags make allowances for the effect of the change in an explanatory variable, for example, in real disposal income which would be reflected in the arrivals' data. The use of this transfer function makes this technique in medium term forecasts, a good alternative to econometric model building.

A variety of other trend expressions can be estimated in the form of linear, constrained hyperbola, exponential, log-log, semi-log, modified exponential, hyperbola, modified hyperbola, quadratic, and log quadratic (see figure 6-1). The data are explained by the curve where weights are given to all the data, but might ignore important variations, thus this limitation suggests that it should be used cautiously. The curve should be chosen first before analytical methods, to find the 'best', then use regression analysis to form a historical pattern to fit the chosen expression. Then, by using $r^2$, including other validation statistics, one can check the quality of the fit.
Figures 6-1 Examples of Trend Curves Shapes

- Linear Function
- Exponential
- Modified exponential
- Exponential
- Semi-log
- Log quartic
The regression can be computed on monthly, quarterly, or yearly data, subjected to trends only, where a moving average is computed, and the time series are not probabilities. The regression equation for a sample of any population is the basic line definition:

\[
y = b_0 + bx
\]

(6-7)

where:

- \( y \) is the dependent variable
- \( b_0 \) is the y intercept
- \( b \) is the slope of the line
- \( x \) is the independent variable

The curve of ‘best fit’ is the collection of \( x, y \) data points that minimise the sum of square distances from the points to the curve as is measured in the Y direction, the regression curve. Trend analysis is relatively quick and easy to use, and is useful in business forecasting, where transformations forecasts are calculated from data that show a range of patterns. The \( b_0 \) and \( b \) are determined by the least square methods equation, given:

\[
\begin{align*}
    b &= \frac{n\Sigma xy - \Sigma x \Sigma y}{n\Sigma x^2 - (\Sigma x)^2} \\
    b_0 &= \frac{\Sigma y}{n} - b\frac{\Sigma x}{n}
\end{align*}
\]

(6-8) (6-9)

Once having derived the sample regression line, the dispersion around the line can be measured. Critical analysis of forecasting points to the imperfection of forecasts (Ames and Reiter 1961, Pant and Starbuck 1990, Tinbergen 1939), due to errors. The goal therefore, would be to minimise the likelihood of errors (Witt 1994), by use
of methods such as, the mean absolute error (MAE), mean absolute percentage error (MAPE), and root square mean error (RMSE) or root mean square percentage error (RMSPE) (Kling and Bessler 1985). This follows from the belief that large errors should carry weights. Standard error of estimation measures the typical distance from a data point, to the curve that is measured in the y direction, similar to standard deviation of data points around the mean. It actually measures the standard amount of the y hat values differ from the estimated values (y) (see figure 5-1), represented by $S_{y,x}$, defined as:

\[
S_{y,x} = \sqrt{\sum_{i=1}^{n} (y_i - \hat{y})^2} \quad (6-10)
\]

The combination of equations (6-7) and (6-10) gives:

\[
S_{y,x} = \sqrt{\sum y^2 - b_0 \sum y - b \sum xy} \quad (6-11)
\]

Some basic set of assumptions surround the use of regression analysis:

1. The sample set is from a population of y values that is normally distributed around the regression line.
2. The dispersion remains constant along the regression curve.
3. The error terms or residuals ($) are independent, no dependency exists among them.
4. A linear relationship must exist between the variables x and Y in the sample.
The measurement of variability between x and y can be measured by the coefficient of determination ($r^2$), where the variability of y is explained by the variability of the independent variable x, written:

$$r^2 = b_0 \Sigma y + b \Sigma y - n y^2$$

$$\frac{\Sigma y^2 - n y^2}{n - 1}$$

(6-12)

The level of correlation is deduced from the strength of $R^2$, (the coefficient of determination), and \( \bar{R}^2 \) (adjusted $R^2$) which varies between 0 to ± 1. The closer that the adjusted $R^2$ is to ± 1, the stronger would be the linearity, and the likelihood that the variable could be used as an explanatory variable. Hence, its ability as a predictive variable is increased. The variations between -1 to 1 indicate the percentage variability of Y, as is explained by x, the explanatory variable. It is likely that one would make some errors or residuals in the predictions, and by estimating the bar y, values with y, by subtracting y - bar y, then squaring, and summing the number of errors which can then be measured, written:

$$\Sigma (y - \bar{y})^2$$

(6-13)

The sum of squared residuals shows the total variability of y around its mean. The variance is derived by dividing the sum of squared residuals, by the appropriate degrees of freedom, ie. $n - 1$, hence the total variance is given:

$$S^2_y = \frac{\Sigma (y - \bar{y})^2}{n - 1}$$

(6-14)
The square root of the variance is the standard deviation of Y. However, it is important to check the visual patterns against the time series and the forecast. The forecast should follow the steps mentioned to derive accurate results, finishing by producing a forecast by extrapolating the trend equation.

6.6 AUTOREGRESSION

Periods in forecasting tend to be interrelated, and one period's value might have a strong relationship between the next period's value. The prior period's value may be a good basis under which the next period's value can be forecasted, calculated by autoregressive models. Autoregression is useful when values are correlated between a variable, lagged one or more periods, and itself, and where the coefficients are used to identify data patterns. These data patterns form multicollinearity, and include components such as, trend, seasonality, and irregularity. Autoregression is flexible and usually works well, forming nonlinear trends, and is estimated by the use of regression methods, utilising four or five immediate past values, the minimum set of independent variables that is relevant, by means of a stepwise regression (Witt & Moutinho, 1989, 1994). Stepwise regression can be accomplished by the adding of independent variables one at a time until there is no statistical significance, resulting in autoregression models formed:

\[
y_t = \hat{\beta}_1 + \hat{\beta}_2 x_{2,t-1} + \hat{\beta}_3 x_{3,t-2} + \ldots + \hat{\beta}_n x_{n,t-n} + \epsilon_t \quad (6-15)
\]

where:

- \(x_t\) is the value of a time series in period \(t\).
- \(y_t\) is the autoregressive forecast of \(x_t\).
- \(\hat{\beta}_1\) to \(\hat{\beta}_n\) are the coefficients to be estimated using regression analysis.
\( e_i \) is the error term in \( n \) time periods

A time series using a complete past year of data is important where seasonality of past values \( x_{t+1}, x_{t+2} \) exists, or where the data should be seasonally differenced in the first instance, as is the case of tourism data. One must remember that, one of the accuracy of multicollinearity estimation makes it very difficult to extract the relative influences of the independent variables \( (x) \). The reduction of precision is due to errors that might have been large, highly correlated, and resulting in a large sampling variance of the coefficient (Johnston 1984). Ignoring variables because of their coefficients are near to zero may be incorrect, as this might lead to fewer precise forecasts results.

6.7 DECOMPOSITION METHODS

The methods associated normally with decomposition are Census II and Box-Jenkins, which have been applied in tourism forecasting and are associated with BarOn (1975). The cyclical nature of tourism due to the weather seasons, and the one time effects of natural disasters, and the economic cycles of the generating market, can be used to analyze the cyclical component of tourism data that influences demand. These varied influences, secular trend, irregular or random changes, cyclical fluctuations and seasonality affect the time series. The results are then isolated and measured against the parts of the time series that are attributable to the components. Classical decomposition approach takes a form:

\[
x_t = T_t \times S_t \times I_t
\]

where:

T represents the trend value
S represents the seasonal component
I represents the irregular (unpredicted) component
t represent the time period.
If the cyclical component is small or of no relevance and the data insufficient, the longer term cyclical component is omitted, as has been done in equation (6-16). Cyclical components are difficult to identify and forecast in economic and business, but it is particularly difficult in tourism forecasting, as tourism is especially cyclical and the causes are not often well understood. Classical decomposition is suited to data that contain trend or seasonality, where seasonality is removed from the data by taking the moving average of one year. A linear trend is fitted to the deseasonalised data using regression against time, which provides a value \( T_t \) for the trend at each time period. By dividing the time series value \( X_t \) by the computed trend value to give a seasonal index for the period, the seasonal component can be estimated. The seasonal component \( S_t \) is derived by averaging the values for corresponding periods in the year, and finally the irregular \( I_t \) is done by transformation of equation (6-16).

Census X-II model originally devised by the US Bureau of Census also extends the basic composition model of equation (6-16), by allowing the trend term \( T_t \) to be non-linear. It involves considerable computations, and is relatively more sophisticated than the classical decomposition. It consists of four stages:

1) To construct the monthly, quarterly or yearly time series data for the operational period, the number of operational days for tourism related business must be obtained. Operational days might be five to six days (except hotels which never close), excluding public holidays. Data must be collected for each day, and computed as monthly, quarterly or yearly sales.

2) The initial estimates of seasonal factors and the adjustment of the seasonality, separate the seasonality from the trend/cycle in the first instance. The randomness of the seasonality can then be isolated.
(3) To obtain more accurate seasonal factors, the adjustments are refined, including the estimation of the trend cycle, and random components.

(4) The fourth stage generates summary statistics, which can be used to determine the success of the method in isolating the seasonal factors.

The statistics are used to develop the future estimate of the trend/cycle in the data to be forecast. The limitation of the method rest in its reliance on intuition, and not statistics in a rigorous mathematical sense (Hanke & Reitsch 1994).

Box-Jenkins univariate method (1970) is a highly sophisticated technique and is more difficult, as it’s model makes use of autoregression and moving average terms, by which accurate forecasts can be attained. It utilises complex statistical and mathematical algorithms and the subjective judgment of the modeller, where experience is required for the analysis and application of a time series. This method is different from the previous methods discussed, and does not assume any particular pattern in the historical data. The model computes the forecast, and checks against the historical data to detect its accuracy in describing the series. If the residuals between the forecasting model and the data points are small, randomly distributed, and independent, then the model is said to be a good fit. The process can be repeated to improve the results. One can compare the distributions of the autocorrelation coefficients of the time series, with the theoretical distributions of the model. However, it is quite unlikely that the autocorrelations of the actual data would be identical to the theoretical distributions.

6.8 IMPLEMENTATION AND ASSESSMENT

The implementation and assessment of the demand forecast are, as mentioned before, quite critical where accuracy will determine its success. The forecasts must be done methodologically to obtain the best results, and can be best summarised by:
a) Select those variables that are expected to influence the demand forecast variables, and specify the relationships in mathematical format.

b) Assemble the data for the relevant model.

c) Use the data to estimate the quantitative effects of the influencing variables on the forecast variable in the past.

d) Test the estimated model to see if it is sufficiently realistic.

e) If the test shows that the model is satisfactory, then use it for forecasting.

Most of the common mathematical formulae are log linear, where the estimated coefficients (which shows effects of the explanatory variable), may be interpreted directly as elasticities. Assessment is done by evaluating the parameter estimates obtained in a regression model, in terms of both significance and magnitude, to detect the theoretic are accuracy. Economic theory imposes restrictions on the significance and values of the parameters in demand functions. The estimates must be examined to see if these constraints are met, for example, as foreign holidays are a superior good, a positive income elasticity is expected, *ipso facto* the magnitude of the income elasticity is expected to exceed unity. Price elasticity of demand should be negative and cross price elasticity for substitutes should be positive, since price is an important variable in determining destination choice. Tastes correlate to changes in holiday destinations choices, and changes in trends may be a positive or negative coefficient depending on the destination. Promotion expenditure and lagged independent variable coefficient are expected to be positive. Therefore, estimated parameters with incorrect significance should be rejected as it is theoretically impossible, and would result from deficiencies of sorts within the model.
Empirical results may also be evaluated in terms of statistical measures of accuracy and significance of the forecasting equations, using T-tests to examine the hypothesis. The statistical evaluation determines if a particular explanatory variable coefficient is significantly different from zero, or whether the estimated values were generated by chance (Witt & Moutinho, 1989). If the hypothesis proves that a coefficient that is equal to zero is true, then the corresponding explanatory variable does not therefore influence the dependent variable, and should be excluded from the demand function. When a parameter is not statistically significant, e.g. at 5% level, it does not prove non-relationship between the explanatory and dependent variables, but might result from a statistical problem. Nevertheless a priori beliefs will influence the chosen explanatory variables, but the choices should be theoretically sound.

6.9 CARIBBEAN TOURISM GROWTH TRENDS

Caribbean arrivals have increased sui generis over the last 40 or more years, from a few hundred passengers in the 1950s, to hundreds of thousands by the 1980s. The mature destinations of Barbados and Bermuda are not expected to have an upward trend over the next five years, whereas destinations at the intermediate stage of the tourism life cycle, such as Antigua and Barbuda, and St. Lucia (McElroy and de Albuquerque 1992) are expected to have increases in demand. The additional growth is expected to be generated from Western Europe, partially due to increased promotion in the EU area, during the 1990s (Travel Weekly 1992), and the peak in tourist arrivals from the United States (CTO 1990). This assumption led to an analysis of the islands to determine those that were likely to receive additional tourists from the EU, based on the past trend. Countries were chosen to be subjected to forecasts, if the EU market share was approximately 20% of total arrivals, in 1990 to 1992. This is not to deny that, increases in market share could become evident on those islands that received the majority of its tourism from the US mainland. The trend of the last 15 years however, should yield favourable forecasting results for
those islands with 20% present demand from the EU. Additionally, CTO (1990) noted that 20% of Caribbean arrivals originate in the EU.

The moving average technique can be applied to an array of varied databases. In the case of tourism arrivals for any destination, the use of the method will enable the projection of future demand. The projection of tourism demand in the Caribbean is a good example, as the region’s economy relies heavily on the tourism sector. Grenada and Carica were forecasted with the use of the exponential smoothing method, as it provided the ‘best fit’, whereas Antigua and Barbuda’s and Martinique’s forecasts were computed using the Box-Jenkins method. Forecasts were computed with an upper confidence limit (c.f.) of 97.5%, and the lower c.f. of 2.5%, based on a two-tail test.

When Grenada’s arrivals were forecasted, the Box-Jenkins method was used with the multiplicative classical decomposition. Historical quarterly arrivals time series, from 1978 to 1993, were computed for Grenada, and resulted in an adjusted R-square of 0.90, with a Mean Average Deviation (a measure of the goodness of fit, which is an average of the values of the errors) (MAD) of 1.35. In an attempt to obtain the ‘best fit’, Exponential Smoothing using a linear trend, and addictive classical decomposition was calculated. The results showed an improved adjusted R-square of 0.90, and a MAD of 1.13. When forecasting Carica future tourism demand, similar forecast tools were applied, as were utilised on Grenada’s, first using the Box-Jenkins method, then multiplicative classical decomposition was added to the calculations. The adjusted R-square was 0.64, and the MAD was 4, whereas the Exponential Smoothing technique, showed no trend with multiplicative seasonality, which resulted in a slightly improved adjusted R-square of 0.66, and a MAD improved of 3.95. The projections show that in the year 2000, there would be approximately 184,000 arrivals on Grenada, with a lower limit (2.5%) of 94,680 arrivals, and an upper limit (97.5%) of 269,530 arrivals (see Table 6-1). Carica should 227,995 visitors, in the year 2000, with a lower limit of 97,480, and an upper limit of 358,510 arrivals.
Conversely, when forecasting Antigua and Barbuda’s and Martinique’s arrivals, initially, the exponential Smoothing technique was applied. In the first instance, Antigua and Barbuda’s forecast calculations resulted in an adjusted R-square of 0.94, and a MAD of 2.52, when multiplicative classical decomposition was included in the computations. The adjusted R-square improved to 0.93, and the MAD was lowered slightly to 2.45, when the Box-Jenkins method was applied. Martinique projected arrivals, using exponential smoothing (the winter’s model and multiplicative classical decomposition) resulted in an adjusted R-square of 0.88, and a MAD of 16.12. The Box-Jenkins method was used as a comparison, in order to obtain the ‘best fit’, and the forecast calculations resulted in an improved adjusted R-square of 0.83, and an improved MAD of 6.13. In both cases, Box-Jenkins out performed Exponential Smoothing. Antigua and Barbuda’s projected arrivals, in the year 2000, should be 378,200, with a lower limit indicating 277,510 arrivals, and an upper limit indicating 479,020 arrivals. Martinique’s arrivals should be 397,818 in 2000, with an lower limit, indicating 240,420 arrivals, and a upper limit indicating 555,210 arrivals, at 95% confidence (see Table 6-1).

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>LOWER LIMIT (at c.f. 2.5%)</th>
<th>FORECAST LIMIT (at 95% conf)</th>
<th>UPPER LIMIT (at 97.5% conf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTIGUA &amp; BARBUDA</td>
<td>277,510</td>
<td>378,200</td>
<td>479,020</td>
</tr>
<tr>
<td>DOMINICA</td>
<td>70,100</td>
<td>102,000</td>
<td>133,910</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>338,720</td>
<td>488,000</td>
<td>586,440</td>
</tr>
<tr>
<td>GRENADE</td>
<td>94,680</td>
<td>184,000</td>
<td>269,530</td>
</tr>
<tr>
<td>CURACAO</td>
<td>97,480</td>
<td>227,995</td>
<td>358,510</td>
</tr>
<tr>
<td>MARTINIQUE</td>
<td>240,420</td>
<td>397,818</td>
<td>555,210</td>
</tr>
<tr>
<td>TOTAL CARIBBEAN</td>
<td>9,756,200</td>
<td>12,875,900</td>
<td>15,988,970</td>
</tr>
</tbody>
</table>
To carry out multiple regression analyses, it is necessary to ascertain what variables could be used as explanatory (independent) variables. Independent variables were chosen, based on their likelihood of influencing demand. Independent variables, such as per capita income, longhaul airfare, population, and price indices were used on multiple regression analyses of tourism arrivals on the selected islands. The regression equation would then be written as:

\[ Y_t = \alpha + \beta_1 (\text{per capita income}) + \beta_2 (\text{air fare}) + \beta_3 (\text{population}) + \beta_4 (\text{price indices}) \]  

Multiple forecasts on Antigua and Barbuda’s total tourism arrivals resulted in an adjusted R\(^2\) value of 0.94, whereby only price indices of the EU were indicated to be significant (t-value 2.23). Univariate regression with price indices as the only independent variable, whereby the adjusted R\(^2\) value was 0.94, and the observed t-value was 14.24, indicated that price indices was a good explanatory variable of future arrivals. If the observed t values are larger than the critical value of t, based on a 5% confidence limit, and 14 degrees of freedom (d.f.), where d.f. is the number of observations minus 1, (n-1), then the independent variable would therefore be accepted as an influencing variable.

The inference of price indices as influencing variables concurs with economic theory, which states that services (including travel) increases with income, as services are income elastic. As consumer prices rise, the likelihood of EU residents taking a holiday to Antigua and Barbuda would increase. Thus, high demand, which results from increased economic activity, would result in demand pull inflation, *ipso facto*, higher prices in the EU, which would result in higher incomes (GNP).

In contrast to Antigua and Barbuda, although price indices were the only significant dependent variable when univariate regression was computed on Caraica tourism arrivals, the adjusted R\(^2\) was weak at -0.05. In the year 2000, about 360,000 tourists
are projected to arrive on Antigua and Barbuda, with price indices as the dependent variable. This result is more conservative than total projected arrivals, which was calculated to be 378,200 in the same year.

Martinique' tourism arrivals forecasts, unlike Antigua and Barbuda’s, had a fairly low adjusted $R^2$ (0.57), with mostly weak indicators. Moreover, per capita income of the EU was the only significant variable, but univariate regression analysis also resulted in a low adjusted $R^2$ (0.41). Although the observed t-value (3.30) was statistical significance, the correlation is too weak, hence the variable would be a poor predictive measure of future demand. Multiple regression analysis on Grenada’s tourism arrivals indicated that, only per capita income was relevant to explain demand. The adjusted $R^2$ (0.89), and the observed t value (10.62) pointed out that, per capita income would be good explanatory variables of future tourism demand. Grenada is projected to receive 124,348 tourists, in the year 2000. This figure is also more conservative (similar to Antigua and Barbuda) than the total arrivals figure of 184,000; which could suggest either that, per capita income and price indices of the EU may be conservative, which would result in overall conservative results.

Tourism arrivals from the EU to the Caribbean islands are expected to increase, along with total arrivals, and the overall share could surpass 20% of the total, as promotion increases. Total Caribbean arrivals forecast calculations resulted in an adjusted $R^2$ of (0.93) and a MAD of (2.52), hence indicating a good correlation, with a minimum mean average error. Caribbean arrivals, in 2000, are projected to be 12,875,900, with a lower limit of 9,756,200, and an upper limit of 15,988,970. If the current twenty percent of the total demand from the EU remains, then arrivals in the year 2000, from the EU, should therefore be approximately 2,575,180 visitors to the Caribbean.
6.10 CONCLUSION

Criticisms of forecasting are somewhat valid, but it is better to have some indication of the future by forecasting than no idea of trends. Trends give some indication of the future, specifically germane to short and medium term planning, as it reduces relative uncertainty. The challenge remains in the use of the methods whereby errors can be minimised (Brodie and de Kluyver 1987, Martin and Witt 1988, Thury 1985). Since the tourism industry is overwhelmingly comprised of SMEs, planning is even more important. The determination of trends aids strategist, to meet the challenges of the future with confidence and readiness. Computing has revolutionised forecasting, with the advent of microcomputers and the appropriate software, the cost and timing to calculate econometric forecasts have considerably improved. Moreover, the benefits of forecasting must outweigh the costs, in order to justify their use.

A major advantage of econometric forecasting is its ability to allow for the impact, on the forecast variable of changes, in the determining forces. The process involves the estimation of quantitative relationships between the forecast and the explanatory variable, then inserting forecasts of the influencing variables into the estimated relationship. Caribbean tourism and travel enterprises can make use of international tourism demand forecasts for planning of capacity, which is essential to lending efficiency, and profit maximisation.

The following chapter discusses demand forecasting, with projections for the OECS islands, whereby calculations have used tourism expenditure, an other economic variables to show their relevance to the islands economies. The process utilises some of the techniques discussed in this chapter, where the results are used to ascertain future Caribbean growth demands, from an economic viewpoint.
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Chapter 6: Demand Forecasting and Analyses, the Projections for Caribbean Tourism Growth Trends


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Chapter 7: A Medium-Run Forecasting Model of the OECS

7 A MEDIUM-RUN FORECASTING MODEL OF THE OECS

7.1 AN INTRODUCTION

The Eastern Caribbean economies are the smallest of the Anglophone islands, united by an economic union called, the Organisation of Eastern Caribbean States (OECS). The islands within that grouping are, Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and Grenadines. The British Virgin Islands (BVI) is an associated member. A most significant aspect of the organisation is their participation in monetary union, the use of a common currency, the Eastern Caribbean Dollar (EC$). In view of tourism's importance to the region, including the majority of tourists arriving from the United States (US), the EC$ has been pegged to the US$, at EC$2.70 to US$. The use of a common currency in such micro-economies eliminates the administration of many currencies, thus the aggregate economic strength is undoubtedly more forceful than one small economy's currency. The pegging of the EC$ to the US$ should safeguard against exogenous currency shocks, which would otherwise adversely effect demand from the main generating market (US).

The central bank in St. Kitts, controls interest rates and the money supply on advice of the governments, with minimum to no individual government manoeuvring. Therefore, in case of an austerity exercise (Structural Adjustment Programme), there is very little that could be done in the way of currency devaluation. Nonetheless, the advantages of such a union outweigh the disadvantages, given the major benefit of a relatively strong currency. The EC dollar is one of the strongest in the region, which would be more difficult to achieve without this type of organisation. The OECS group of nations are mostly independent, except Anguilla and Montserrat that are dependencies of the United Kingdom. The economies are based either on services (tourism), or on the traditional sector (agriculture), with varying degrees of both.
This is evident from the following results of the econometric model of the economies delineated below.

The Caribbean economies need to be evaluated in order to determine the viability of the sectors, and their relevance to the economy. The economic sectors need assessing, to determine current strength, by which their future growth potential, \textit{ceteris paribus}, can be relied upon. Although a sector exists, it may not necessarily mean that it is a major contributor to the economy’s functioning. This is not to say that the sector is not viable, but it might imply that funds to improve its efficiency should be diverted towards that area. Moreover, the economic sectors that are major contributors and are viable, must not be taken for granted. Successful factors can be analyzed, and then applied to other potentially profitable economic sectors of the economies.

Forecasts on Caribbean future arrivals precipitated the forecasting of future expenditure. As tourism is the main economic sector, tourism key indicators seemed a likely area to be reviewed. It is the only sector, which the region can indubitably compete on the world market. It is the most important economic sector to the region (EIU 1993), by that it seems logical to devise a means under which the economy can be scrutinised. The objective of this scrutiny was to ascertain its relevance to the economies, whereby strategic planning can be carried out, to foster economic development. A macroeconomics model patterned on an adapted version of the World Bank medium-run forecast model was utilised. The model is based on a time series of fourteen years of data, from 1978 to 1992. The variables form equations, and are derivative, by which macroeconomics concerns such as, employment creation, output, foreign exchange generation and debt servicing can be ascertained. The model’s primary role is Gross Domestic Product (GDP) related. GDP is disaggregated by use of a system of equations, with a built in function for expansion, which can incorporate new endogenous and exogenous variables. These variables explain causality only, and are based on a short list of assumptions, relating to past activities.
The major assumption has to do with the structure of the economies as they are now, based on tourism and agriculture, thus if a given island chooses to exploit a new industrial sector and it is successful, the model would not reflect this development. It is indeed the major limitation of the model, as it is static, relating only to past performance. The assumption is that the economies will continue to depend on tourism and agriculture. Nonetheless, the sectors are expected to maintain their economic activities in the medium run of five to 10 years, and the forecasts are projected to reflect such. These assumptions can be justified based on the trend of the last fourteen years, as the Leeward economies have been dominated by tourism, and the Windwards by agriculture. Undoubtedly, tourism is likely to become increasingly more important in the Windward islands. The assumption nonetheless remains, that the economies in the medium run, will continue to depend on the traditional sectors for their economic livelihood. The very limitation of size is one element that has hindered economic diversification (Dommen 1985, Kuznets 1963, Streeten 1993, Svennislin 1963). Hence, the tendency has been to subscribe to one or two areas of economic activities. It is unlikely that any changes to address these dependencies would come about in the immediate future, and as mentioned previously, a concerted effort is needed to effect change through a regional approach.

To accurately determine and interpret future trends, one must be familiar with the economy in question. It is necessary to be aware of the dynamics that pertain to the economy's functioning. It is the familiarity with the economy that would enable the use of the appropriate variables in the equations. The model is concerned with both demand and supply. Demand must be understood entirely, and its effect on supply and price. Any excess demand is expected to pull prices up initially, even if the economies are open. Extra demand would be filled by increases in imports, and will temporarily affect domestic prices adversely. In addition, as most commodities are imported, the elimination of excess demand by intentional price rises is unlikely in such small open economies. Thus, in these microstates, there is virtually no market-clearing price. Any excess demand that is of a local nature, for example poultry
Chapter 7: A Medium-Run Forecasting Model of the OECS

demand, would afford only a temporary rise in price. The excess demand for poultry
would be filled by increasing imports. The price rise although temporary, could be
permanent. This would allow for the difference of the demand-supply imbalance to
be evaluated at the new prices, to estimate the price of the imports that resulted from
this imbalance.

Domestic demand and supply at historic prices can be estimated by combining the
price and quantity adjustment dynamics in the goods market. In the tourism based
economies, the domestic demand and supply are affected by the tourists’ demand for
goods produced locally, and have to be imported. Tourists increases in demand for
goods, would result in the increase in prices of domestic goods. The initial
introduction of tourism should typically be followed by higher rates of inflation,
which are usually quite rapid in the beginning.

The model first calculates the supply side of the economy and then proceeds to
demand. The initial calculations were done by determining the aggregate production
function with the labour force, capital stock, real agriculture output and tourism
expenditure. The production function is computed in constant prices, and is
cconcerned with the supply side of the economy. It is assumed that, excess demand
for goods and services resulting from the tourism industry would result in an increase
in demand for the factors of production. Savings, both foreign and domestic are used
to determine the rate of capital formation.

Similarly, the demand side is concerned with another set of relevant variables,
primarily consumption, investment and exports. Another equation concerned with the
price sub-model calculates the current price-level and output at constant prices into
GDP (millions of EC$). A set of equations utilise the consumption function to decide
investment and exports at current prices, and demand, and definitive equations based
on national accounting.
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7.2 THE VARIABLES

The following variables indicate the meanings of the acronyms used in the equations:

7.2.1 Supply-side of the Economy

RGDP: Gross Domestic Product at constant 1992 prices, expressed in millions of EC dollars (taken from the OECS data).
Agr: Agriculture
Cumrinv: Cumulative rate of investment
Tourexp: Tourism expenditure

7.2.2 Demand-side of the Economy

MGDP: Gross Domestic Product at market prices, expressed in millions of EC dollars
Consp: Aggregate Consumption
Govcons: Public Consumption
Pricons: Private Consumption
Exp: Exports
Imp: Imports
BOP: Balance of Payments
INV: Investment
FINV: Foreign Investment
SAV: Savings
Visex: Visible exports
7.3 THE PROCESS

This type of forecasting model is based on a set of equations that form a recursive model, by which solutions can be derived simultaneously. Simultaneous equations are used where one solves first for an x variable, then y can be detected to solve the equation. Here one has a disintegrate equation, whereas if the equation is incapable of a solution for either x or y variables the equation is insolvable or integrate. Additionally, some models might consist of equations that are a mixture of both disintegrate and integrate, which allows for partial solutions. The model is based entirely on disintegrate equations, where the solutions of one equation can be used to solve subsequent equations in the set. The use of a simultaneous recursive system of computing, delineates a causal relationship between not only x and y variables, but between x, y and z variables. In a triate relationship, the solution derived for x, can solve for y and then proceed to solve for z, therefore affording a sequential explanation.

Equations of this nature may ignore some influences such as time lags. To overcome this, time lags were use for both endogenous and exogenous independent variables that might have affected output. The equations are behavioural and technical in nature. Consumption as a function of income is behavioural for example, whereas equations that explain value-added are technical. It must be noted that estimations in economic models are never exact. A margin of error is always employed in the derivation of equations, which leaves partially unexplained factors. The square error (SE) indicates the level of residuals that occurred during the calculations. A high coefficient of determination ($\rho^2$) measures the goodness of fit of the regression equation to the data in question. The better the fit to the data, the higher would be results of $\rho^2$, and the nearer would $R^2$ be to one. This only suggests however, a close positive collinearity between the independent variables as a whole and the dependent variable. Conversely, an $R^2$ of -1, would imply a perfectly negative collinearity. An $R^2$ of 0.950 implies that 95% of the variance in $Y_t$ is explained by the model, thus leaving
5% unexplained. $R^2$ denotes the estimation of the parameter $\rho^2$, where $R^2$ is equated as:

$$
R^2 = \frac{\sum (\hat{Y}_t - Y)^2}{\sum (Y_t - \bar{Y})^2}
$$

or

$$
R^2 = 1 - \frac{\sum (\hat{Y}_t - Y)^2}{\sum (Y_t - \bar{Y})^2}
$$

(7-1)

or

$$
\frac{SSR}{SST} \quad \text{and} \quad \frac{SSR}{SST}
$$

Where:

SSR is the regression (explained) sum of squares
SST is the total sum of squares
In order to test the goodness of fit of the model, one must test to determine if $\rho^2$ equals zero, by using the F-test, equated from equation one. The F-test is the ratio of the mean square regression ($\text{SSR}/(k-1)$) to the mean square error ($\text{SE}/(n-k)$):

$$F = \frac{\sum (Y_t - \hat{Y})^2 / (k-1)}{\sum (Y_t - \bar{Y})^2 / (n-1)} \quad (7-2)$$

where:

- $k$ is the number of estimated coefficients plus the intercept estimated in the regression (for bivariate regression, $k$ would be 2).
- $n$ is the number of time periods.

If the computed value of $F$ is greater than the critical table values, then the null hypothesis ($H_0$) of no linearity must therefore, be rejected. The research hypothesis ($H_1$) of linearity is accepted, showing a goodness of fit that meets the criterium for linear relationships. The acceptance of the null hypothesis would imply that the relationship is nonlinear, an indication of another relationship such as curvilinearity, or no relationship.

Values of the F-test and the $R^2$ are not adequate in themselves to determine causality. These values cannot be used for predictive purposes, if other statistical tests prove false. Additionally, the independent variables explain the relationship between themselves, and the dependent variable. The independent variables are explanatory or causal variables, by which the partial correlation matrices show the degree of correlation between the independent variables. Independent variables should be independent to be explanatory, there should be very little correlation among the
independent variables (Fletcher 1992). If there is indeed a strong correlation, i.e. $\rho$ closer to one, between the independent variables, then the variables are not independent and multicollinearity maybe deemed to be relatively high.

This is not to say that the general model cannot be used for prediction purposes, but the interdependent relationship between the independent variables hinders the explanatory power of the independent variables in question. Nonetheless, multicollinearity is 'most likely to be present and its influence on the regression results is a matter of degree' (Gaynor and Kirpatrick 1994:241). It is more often associated with time series data, as the independent variables tend to be highly correlated, and the trend in the data reinforces the correlations. In addition, independent variables maybe negatively correlated with other variables, which may be anathema to logic and theory, thus the credibility of the variables must be questioned.

The OECD model is mainly concerned with multivariate regression, although bivariate regressive models were most common, due to the statistical insignificance of some independent variables. Multivariate regression analysis can be written in equation format as:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \ldots + \beta_j X_{jt} + \epsilon_t$$  \hspace{1cm} (7-3)

where:

- $t = 1, \ldots, n$ is the number of observation
- $\beta_i$'s are the regression coefficients
- $X_i$'s are the independent variables
- $i = 1, \ldots, j$
- $\epsilon_t$ is the residual or error term
The stochastic error term is an independent random variable ($\epsilon_t$), and could represent all the other variables that affect the regression model (Yamane 1970). The coefficients of $\beta_1$, $\beta_2$, and $\beta_3$ are known for the OECS, whereby GDP ($Y$) can be written as:

\[
RY_t = \beta_0 + \beta_1 \text{time} + \beta_2 \text{agriculture} + \\
\beta_3 \text{tourism expenditure} + \beta_4 \text{cumrinv} + \\
\beta\left(\text{Y}_{t-1} - \{ \beta_0 + \beta_1 \text{time}_{t-1} + \beta_2 \text{agriculture}_{t-1} + \\
\beta_3 \text{tourism expenditure}_{t-1} + \beta_4 \text{cumrinv}_{t-1}\}\right) + \epsilon_t
\]  

(7-4)

where:

- $RY_t$ is constant or real GDP
- time is the year
- cumrinv is the cumulative rate of investment
- t-1 refers to the variable lagged one year

There are at least five assumptions that must be used to support these multivariate regression: (1) the error term or residuals ($\epsilon_t$) are normally distributed; (2) the mean of the error term equals zero, ie. $E[\epsilon_t] = 0$; (3) the variance of the error terms is constant for all observations, thus homoscedasticity is denoted as:

\[
Var[\epsilon_t] = E[\epsilon_t^2] = \sigma^2
\]

for all $t$;

(4) The random error terms are statically independent of each other, written as:

\[
E[\epsilon_t \epsilon_r] = Cov(\epsilon_t, \epsilon_r) = 0
\]
for $t \neq t'$, an assumption of no autocorrelation or non autoregression; (5) the $X_i$'s are nonstochastic or not random, and are predetermined values, whereby the conditional mean of $Y_t$ given values of the $X_{ij}$'s are denoted as:

$$E [ Y_t | X_{1t}, X_{2t}, \ldots, X_{nt} ]$$

(7-5)

which give rise to the expected values of the forecasts.

The empirical estimation of the coefficients $\beta_1, \beta_2, \ldots, \beta_j$, measures the change in $Y_t$ for a unit change in $X_i$. This is done while the $X_j$'s are held constant, determined by the signage and amplitude, independent of the other coefficients. The statistical significant of the independent variables must be tested independently of each of the other slope coefficients, by a t-test statistic, computed as:

$$t = \frac{b_i \cdot \beta}{S_{b_i}}$$

(7-6)

where:

- $b_i$ is a sample slope
- $\beta_i$ is the population slope (usually hypothesized to be zero)
- $S_{b_i}$ is the estimated standard error of the regression coefficient, $b_i$

where $S_{b_i}$ is estimated as follows:
The t-test is compared with a critical value t, with the number of observations minus one (n-1) calculation, to give the degrees of freedom (df), at $\alpha = 0.05$ based on a two-tailed test. The OECS model is concerned with the aforementioned, where the result of the computed t is greater than the critical value, then statistical significance is determined. The OECS model is concerned with 14 years of data, hence the df would be 13, and at $\alpha = 0.05$ the critical value is 2.160. The computed t-values are based on the null hypothesis ($H_0$) of no linear relationship, and the research hypothesis ($H_1$) of linearity.

The assumption of the stochastic error term ($\epsilon$), (regression disturbance), as an independent random variable can be tested by the Durbin-Watson test. When data is employed 'in business and economic data, there is a possibility the $\epsilon$ may not be independent, especially when dealing with time series data' (Yamane 1970:809). The veracity of the t and F distribution would be in question as a test of the hypothesis, or their ability to forge confidence intervals. Durbin-Watson (D-W) test can be used to decide serial correlation, by calculation of $d$, and then checked against critical values found in D-W tables. In general, a low $d$ would suggest that positive serial correlation exist, and a larger $d$ would imply no positive correlation. Therefore, if $d < d_r$ one would accept the hypothesis that, there is positive correlation; and if the
$d > d_u$, then there would be no positive correlation; if $d_i < d < d_u$ then the test is inconclusive. This test is only concerned with multivariate regression analyses, therefore it is irrelevant for bivariate equations. The D-W test is written as:

$$d = \frac{n}{\sum_{i=2}^{n} (e_i - e_{i-1})^2}$$

(7-8)

$$\sum_{i=1}^{n} e_i^2$$

In this formula the error term is squared ($e_i^2$), and the first difference of the error term squared ($e_i - e_{i-1})^2$ is calculated and summed. The sum of the error term is given priority, and the sum of the first squared difference. The D-W test calculation gives a lower and upper limit calculation, based on the number of cases. Included is the number of explanatory (independent) variables, denoted by the letter k, at a confidence limit, in the OECS model, of 5%. If the D-W test results fall below the lower limit, positive serial correlation is said to exist. Independent variables must be statistically significant in a regression model in order for the equation to be tenable. If in the event that only one variable is statistically significant, then the D-W test becomes unimportant as a measure of predictive strength.

The computation of linear equations, and the authenticity of independent variables to explain linear relationships, must be viewed in its statistical entirety. Regression results must be based on a series of statistical tests, juxtaposed to the adjusted $R^2$, F-tests, t-tests and D-W tests. No single test is enough to be used as an indicator of predictive abilities of the independent variables. The statistical results must be assessed and interpreted, to effectively predict the future.
7.4 THE MODEL
7.4.1 Constant Gross Domestic Product (RGDP)

The econometric forecasting model is based on a series of linear equations, concerning the core of the economies. GDP and its main generating components in the goods and capital markets are analyzed. The remaining equations concerning the derivation of growth rates; and the value added in the different economic sectors of the product market will be left out. This is due to their secondary importance, and the limitation of time. The following equations are concerned with the major national accounting variables of the economy.

The first equation is computed with the intention of discovering what 'drives' the economy. Coefficients of $\beta_1$, $\beta_2$, and $\beta_3$ are known for the OECS islands and can be written as follows:

$$RGDP = \beta_0 + \beta_t \text{ time} + \beta_a \text{ agriculture} + \beta_t \text{ tourism expenditure} + \beta \text{ cumrinv} + \beta Y_{t+1} - \{ \beta_0 + \beta \text{ time}_{t+1} + \beta \text{ agriculture}_{t+1} + \beta \text{ tourism expenditure}_{t+1} + \beta \text{ cumrinv}_{t+1} \} + \epsilon_t$$  \hspace{1cm} (7-9)

where:

- $Y_t$ is constant GDP or national income at 1992 prices
- time is the year
- cumrinv is the cumulative rate of investment

The results were computed (see Table 7-1) and analyzed, where statistical significance of the independent variables pointed to their predictive power, based on the adjusted R$^2$, F-test, T-tests, and Durbin-Watson results.
Chapter 7: A Medium-Run Forecasting Model of the OECS

### TABLE 7-1
OECS REGRESSION SUMMARY
RGDP

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>ADJUSTED R-SQUARE</th>
<th>F-TEST</th>
<th>T-TEST (1)</th>
<th>T-TEST (2)</th>
<th>D-W TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANGUILLA</td>
<td>0.8842</td>
<td>100.34</td>
<td>10.02</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>ANTIGUA AND BARBUDA</td>
<td>0.9765</td>
<td>540.72</td>
<td>23.25</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>DOMINICA *</td>
<td>0.9385</td>
<td>199.34</td>
<td>14.12</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>GRENADA **</td>
<td>0.9957</td>
<td>1376.05</td>
<td>7.09</td>
<td>28.56</td>
<td>2.187</td>
</tr>
<tr>
<td>MONSTERRAT ***</td>
<td>0.9362</td>
<td>192.14</td>
<td>13.86</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>ST. KITTS AND NEVIS ****</td>
<td>0.9787</td>
<td>276.94</td>
<td>5.26</td>
<td>2.74</td>
<td>1.65</td>
</tr>
<tr>
<td>ST. LUCIA ****</td>
<td>0.9842</td>
<td>405.33</td>
<td>4.59</td>
<td>9.46</td>
<td>1.67</td>
</tr>
<tr>
<td>ST. VINCENT AND THE GRENADINES</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

* t-test for agriculture only
** 1st t-test relates to agriculture, and the 2nd to the cummulative rate of investment
*** cummulative rate of investment only
**** 1st t-test relates to cummulative rate of investment, and the 2nd to tourism expenditure
The remainder are tourism expenditure only

Anguilla regression analyses showed that tourism expenditure was the main determinant of the growth of GDP at constant prices, but the cumulative rate of investment was marginally a factor. Regression analysis with the cumulative rate of investment as the independent variable, resulted in a weak positive correlation. Tourism expenditure as the independent variable regressed on RGDP in a bivariate equation, pointed to a stronger correlation. The equation with tourism expenditure as the independent variable can be written as:

\[
RGDP = 6.68 + 1.832 \times \text{tourexp} \tag{7-10}
\]

Forecast values of tourism expenditure were done, by compiling a time series data on tourism expenditure for Anguilla from 1978 to 1992. A forecast value could be incorporated into the equation, to derive RGDP for any given year in the future, written as:

\[
RGDP_{2000} = 6.68 + 1.832(151.67) \tag{7-11}
\]

= EC$293.02 million
The forecast figure for RGDP in the year 2000, has a good fit, as is indicated by the adjusted $R^2$ of 0.8932. RGDP was EC$164.13 million in 1992, and given the trend of tourism expenditure, RGDP could increase to the projected EC$293.02 million. It is apparent therefore, that tourism expenditure is the main economic contributor to GDP and economic growth in Anguilla.

Similarly, regression analyses on Antigua and Barbuda resulted in a good adjusted $R^2$ (0.9765). This indicates an overall strong linearity between the independent variable (tourexp) and the dependent variable (RGDP). The equation can be written as:

$$\text{RGDP} = 199.95 + 0.293469 \times \text{(tourexp)} \quad (7-12)$$

To test the accuracy of the forecasts, recalculations were done, by using historical RGDP form 1979 to 1992. The results were successful with 1981 and 1989 predicted perfectly, and the remaining years predicted with some deviations. As the forecasts were mapped against the actual only for testing purposes, this exercise was not repeated. It is virtually impossible to obtain a perfect prediction for all the years nonetheless, but one can determine the indication of future trends from forecasts. Moreover, predictions are made with approximately 95% confidence, hence 5% remains that can not be explained. The forecasting of future tourism expenditure gives one the data of $x$ in equation 7-12, to predict RGDP in subsequent years, for example, the year 2000. A forecast of future tourism expenditure shows that in the year 2000, the amount is likely to increase to about EC$1377.12 million. RGDP should therefore be:

$$\text{RGDP}_{2000} = 199.95 + 0.293469 \times (1377.12) \quad (7-13)$$

$$= \text{EC$617.98 million.}$$

One can project therefore that, in the year 2000, RGDP will be about EC$617.98 million, a significant increase from 1992 when RGDP was EC$450.94 million. There
needs to be constant monitoring and reformulation, to improve the accuracy of the model and the predictions (forecasts).

In Antigua and Barbuda, tourism has been proven to dominate the economy (accounting for about 82% of GDP, in 1992). Yet, the coefficient (1.832) for Anguilla implies that the economy relies heavily on tourism expenditure, and when compared with Antigua and Barbuda’s results, the dependency is amplified. Antigua and Barbuda’s RGDP results have a coefficient (0.293), which indicates less reliance on tourism expenditure than Anguilla. This suggests that there may be other economic sectors that are quite important to RGDP growth in Antigua and Barbuda.

Dominica is agricultural based, and the forecast reflects the reliance in the same way as it did for tourism expenditure in Antigua and Barbuda. Regression analysis of RGDP showed a highly linear relationship between agriculture and RGDP. The equation can be written as follows:

$$\text{RGDP} = 155.265 + 3.620 (\text{agr})$$  \hspace{1cm} (7-14)

Forecasting of future agriculture value added in the medium term can be inserted into the regression equation to prediction RGDP. Thus in the year 2000, RGDP can be written as:

$$\text{RGDP}_{2000} = 155.265 + 3.620 (107.363)$$  \hspace{1cm} (7-15)

$$= \text{EC$550.88 million}$$

The strength of agriculture in the Dominican economy is not at all surprising, as the economy is mostly dominated by banana exports. The likely event that bananas will lose its place as the dominant export sector, raises the critical question of what would be its replacement. The tourism sector needs to be defined, to ascertain the area that
needs to be exploited. Although a speciality in ‘ecotourism’ is emerging (Weaver 1991), the high debt/GNP (0.60) is a deterrent to the development of the tourism superstructure that Dominica desperately needs. The projected GNP in the year 2000 (EC$550.88 million), could be much lower if Lomé discussions in 1997 result in bananas losing their position, as an item considered for preferential access to the EU. Moreover, if tourism expenditures or any other industry earnings for that matter, fail to increase to fill the void left by bananas, the economy would stagnate.

Grenada is also agriculturally based, and regression analysis showed that relationship, where the independent variables, agriculture and the cumulative rate of investment were also statistically significant. Regression analyses with RGDP as the dependent variable pointed to a strong linear relationship. There was no positive serial correlation, thus the independent variables were reliable to predict future trends. One factor concerning Grenada data is the likely effect of the political problems of the 1980s. In 1984, there was a coup d’état followed by a military US invasion, which may have some effect on the data. A review of GDP growth rates implies that the effect on the growth rate of GDP for the following years from 1986 to 1989, was significantly higher than previous years. Computations with the use of dummy variables, to explain the dramatic rise in GDP for the six years, could result in better predictive abilities of the independent variables. In addition, it might aid in explaining the role of the cumulative rate of investment as a statistical significant indicator of CGDP.

A dummy variable was introduced for the year of the coup d’état and invasion (1984). Additionally, there were evidences of higher rates of investment from 1982 to 1989, probably due to, the increase in construction activity of the international airport (O’Neill 1991). Furthermore, the cumulative rate of investment is due to the increase in activity resulting from the presence of the US troops, and the increase in AID. The dummy variable was used in the regression model, and agriculture and the
cumulative rate of investment were significant independent variables. The equation can be written as:

\[ \text{RGDP} = 83.45 + 2.87 \text{ (agr)} + 0.23 \text{ (cumrinv)} \quad (7-16) \]

The concentration in exports is not surprising given that, Grenada exports large quantities of bananas, and shares the world’s spice trade with Indonesia.

Montserrat regression model showed that only the cumulative rate of investment can be used to predict future RGDP, written as:

\[ \text{RGDP} = 32.625 + 0.127 \text{ (cumrinv)} \quad (7-17) \]

St. Kitts and Nevis regression analysis using a multivariate regressive model, shows tourism expenditure and the cumulative rate of investment to be statistically significant. These independent variables were the only good predictors of RGDP. The multivariate equation for RGDP can then be written as:

\[ \text{RGDP} = 84.665 + 0.348 \text{ (tourexp)} \\
+ 0.115 \text{ (cumrinv)} \quad (7-18) \]

Tourism development is likely to increase in St. Kitts and Nevis, specifically as the sugar industry continues to face difficulties. The opening of the Four Seasons hotel in Nevis is expected to become a major contributor to economic growth and development, as the resort company has created linkages with other sectors within the local economy.

St. Lucia’s regression analysis resulted in tourism expenditure and the cumulative rate of investment, as strong regressors to explain RGDP. The equation can be written as follows:
\[ \text{RGDP} = 416.02 + 1.56(\text{cumrinv}) + 0.97(\text{touexp}) \quad (7-19) \]

The equation shows that the economy is responsive to changes in the cumulative rate of investment and tourism expenditure, which is similar to the Kitts and Nevis' economy.

Regression analysis of RGDP for St. Vincent and the Grenadines showed no strong regressors. St. Vincent and the Grenadines are one of the poorer islands in the OECS, judged by their lower RGDP. It seems that, no sector is a strong indicator of RGDP.

Analyses of RGDP on the OECS model suggested in general that, forecasts for Anguilla’s, Antigua and Barbuda’s economies showed a strong dependence on tourism expenditure. St. Kitts and Nevis, and St. Lucia’s economies were dependent on tourism expenditure and the cumulative rate of investment. Dominica’s economy depends on agriculture, Grenada’s on agriculture and the cumulative rate of investment, and Montserrat’s economy depends on the cumulative rate of investment only. It is somewhat surprising that, tourism did not play a significant role in more islands. Nonetheless, the islands that are dependent on tourism expenditure were to be expected, given the rising share of tourism to their GDPs. Agriculture’s role, as a predictor of Dominica’s and Grenada’s RGDPs, reinforces the importance of that sector to the islands economies. The failure of its importance in St. Vincent and the Grenadines points to weakness in that sector, as it is a major part of the economy. In addition, tourism is a significant economic activity on the Grenadines, but its productivity does not seem to be adequate in being a major determinant of RGDP. The findings concur with the literature on microstates, which are dependent on one or two export sectors for their economic livelihood, here, agriculture (bananas), and services (tourism).
7.5 DEMAND SIDE OF ECONOMY

The previous equations are estimates of domestic supply at constant prices. Equations concerning demand in the economy must be detected, first by separating, and then by estimating the key components. The areas that directly relate to the demand side of the equation are aggregate consumption, investment (both domestic and foreign), exports, and imports. Consumption can then be further separated into private and government consumption.

7.6 AGGREGATE CONSUMPTION

Aggregate Consumption is estimated using time series and regression analyses. These analyses incorporate independent variables such as current GDP (MGDP), consumption lagged one year, consumption lagged two years, MGDP lagged one year, and time. The equation can therefore be written as:

\[
Consp = \beta_0 + \beta_1 Consp_{t-1} + \beta_2 MGDP + \beta_3 MGDP_{t-1} + \\
\beta_4 Consp_{t-2} + \text{time}
\]

(7-20)

where:

- Consp is aggregate consumption
- \(\beta_0\) is the constant
- \(\beta_1 \ldots \beta_4\) are coefficients of the independent variables
- Consp\(_{t-1}\) is aggregate consumption lagged one year
- Consp\(_{t-2}\) is aggregate consumption lagged two years
- MGDP is Gross Domestic Product at market prices
- MGDP\(_{t-1}\) is Gross Domestic Product at market prices lagged one year
- time is the time period in question
### TABLE 7-2
OECS REGRESSION SUMMARY
CONSUMPTION
EXPLANATORY VARIABLE, MGDP

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>ADJUSTED R-SQUARE</th>
<th>F-TEST</th>
<th>T-TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANGUILLA</td>
<td>0.937</td>
<td>194.45</td>
<td>13.94</td>
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<tr>
<td>ANTIGUA AND BARBUDA</td>
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<td>664.81</td>
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<td>DOMINICA</td>
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<tr>
<td>GRENADA</td>
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<td>ST. LUCIA</td>
<td>0.951</td>
<td>252.64</td>
<td>15.9</td>
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<td></td>
<td></td>
</tr>
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### TABLE 7-3
OECS REGRESSION SUMMARY
PRIVATE CONSUMPTION
EXPLANATORY VARIABLE, MGDP

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>R-SQ</th>
<th>F-TEST</th>
<th>T-TEST</th>
</tr>
</thead>
<tbody>
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<td>ANGUILLA</td>
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<td>GRENADA</td>
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<td>MONSTERRAT</td>
<td>0.8749</td>
<td>91.92</td>
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<td>ST. KITTS AND NEVIS</td>
<td>0.8392</td>
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<td>8.3</td>
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<tr>
<td>ST. LUCIA</td>
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<td>na</td>
<td>na</td>
</tr>
<tr>
<td>ST. VINCENT AND THE GRENADINES</td>
<td>0.9385</td>
<td>199.27</td>
<td>14.12</td>
</tr>
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</table>

### TABLE 7-4
OECS REGRESSION SUMMARY
INVESTMENT
EXPLANATORY VARIABLE, PRIVATE INVESTMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>R-SQ</th>
<th>F-TEST</th>
<th>T-TEST</th>
<th>D-W TEST</th>
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<tr>
<td>ST. KITTS AND NEVIS</td>
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<td>95.11</td>
<td>9.75</td>
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<tr>
<td>ST. LUCIA</td>
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<td>5.7</td>
<td>na</td>
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<tr>
<td>ST. VINCENT AND THE GRENADINES</td>
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</table>
Aggregate consumption forecasting proved to be as problematic as RGDP, with some success for the OECS model. The independent variable GDP at market prices (MGDP) proved to be a good indicator of future aggregate consumption (see Table 7-2), and private consumption (see Table 7-3).

In Anguilla, initial regression analysis pointed to a weak correlation between the independent and dependent variables. Private consumption regression analysis, with MGDP as the independent variable showed also a weak positive correlation. Anguilla was the only island with no clear independent variable to indicate causality of aggregate consumption.

Anguilla is the least populous (9,200 in 1992) in the OECS model, with one of the lowest MGDP. The level of aggregate and private consumption were difficult to explain, probably due to low populations, as smaller nations would have less demand, (as mentioned earlier in this chapter) and thus, weaker consumption indicators. The discussion follows that this could be true for all of the smaller islands in the model, but this was not the case for the larger and relatively more prosperous countries. Regression results were computed for Antigua and Barbuda, and Dominica, as the two economies are diagonally opposed. Antigua and Barbuda are the most developed of the OECS islands, and Dominica has the least evidence of economic development, but these economies may not be representative. Nonetheless, forecasts of the two economies could point out aspects of demand, of one economy based on tourism, and another based on bananas.

Antigua and Barbuda proved the research hypothesis correct, as regression analysis with MGDP as the independent variable resulted in an equation written as:

\[ \text{Conspr} = 114.31 + 0.598 \times (\text{MGDP}) \]  (7-21)
Forecasts of MGDP in the future, incorporated into the equation can be used to deduce aggregated consumption at a period in time. The equation would be written as:

\[
\text{Consp}_{2000} = 114.31 + 0.598 \times (1527.15) = \text{EC$1027.55 million}
\]

The variable to predict future consumption levels can be accomplished by forecasting MGDP, and then it can be incorporated into the equation to predict private consumption. Private consumption regression proved also to be dependent on MGDP, as it had for aggregate consumption, where the equation is written as:

\[
\begin{align*}
\text{Pricons} &= 106.91 + 0.429 \times \text{MGDP} \\
\text{Pricons}_{2000} &= 106.91 + 0.429 \times (1527.15) = \text{EC$762.06 million}
\end{align*}
\]

As with aggregate consumption, one expected that GDP at market prices to be a strong indicator of private consumption. The current level of economic activity at the domestic level is likely to pertain to the level of private consumption. GDP at market prices is directly affected by the level of domestic injections into the economy, one of which is private consumption.

In order to derive government spending in the future, one has only to subtract private consumption from aggregate consumption, given:

\[
\text{Govcons} = \text{Consp} - \text{Pricons}
\]

In Antigua and Barbuda, government consumption would be written as:

\[
\begin{align*}
\text{Govcons} &= 1027.55 - 762.05 = \text{EC$265.50 million}
\end{align*}
\]
Dominica consumption function successfully showed that MGDP was also the determinant of future consumption levels, with the equation written as:

\[ \text{Cons}_p = 48.57 + 0.770 \times \text{MGDP} \]  

(7-27)

Consumption in the future can then be computed, if the MGDP in any given year is known. Therefore, forecast values of MGDP can be added to the equation to give:

\[ \text{Cons}_{p2000} = 48.57 + 0.770 \times 219.55 \]
\[ = \text{EC$217.62 million} \]  

(7-28)

The model relating to private consumption (pricons) as the dependent variable and MGDP as the independent variable, resulted in an equation written as:

\[ \text{Pricons} = 32.25 + 0.604 \times \text{MGDP} \]  

(7-29)

Private consumption can then be calculated to be:

\[ \text{Pricons}_{2000} = 32.25 + 0.604 \times 219.55 \]
\[ = \text{EC$164.86 million} \]  

(7-30)

in the year 2000 for Dominica. Government Consumption can then be written as:

\[ \text{Govcons}_{2000} = 217.62 - 164.84 \]
\[ = \text{EC$52.78 million} \]  

(7-31)

Grenada consumption (consp) function regression analysis resulted in MGDP as the independent variable, written as:
Private consumption as a dependent variable of MGDP can be written as:

\[
\text{Pricons} = 59.313 + 0.638 \text{ (MGDP)} \quad (7-33)
\]
\[
\text{Pricons}_{2000} = 59.313 + 0.638 \text{ (687.97)}
= \text{EC$498.24 million}
\]

Government consumption can be calculated as:

\[
\text{Govcons}_{2000} = 656.35 - 498.2
= \text{EC$158.11 million}
\]

Montserrat aggregate consumption with the independent variable MGDP can be written as:

\[
\text{Consp} = 46.62 + 0.561 \text{ (MGDP)} \quad (7-35)
\]
\[
\text{Consp}_{2000} = 46.62 + 0.561 \text{ (256.20)}
= \text{EC$190.35 million}
\]

and private consumption, written as:

\[
\text{Pricons} = 44.965 + 0.378 \text{ (MGDP)} \quad (7-36)
\]
\[
\text{Pricons}_{2000} = 44.965 + 0.378 \text{ (256.2)}
= \text{EC$141.81 million}
\]
Government consumption, written as:

\[
\text{Govcons}_{2000} = 190.35 - 141.81 \quad (7-37)
\]
\[
= \text{EC$48.54 million}
\]

St. Kitts and Nevis also proved to have a strong indicator of consumption, with MGDP as the independent variable. The equation can therefore be written as:

\[
\text{Consp} = 50.64 + 0.642 \text{ (MGDP)} \quad (7-38)
\]
\[
\text{Consp}_{2000} = 50.64 + 0.642 (723.42) \quad (7-39)
\]
\[
= \text{EC$515.08 million}
\]

Private consumption regression analysis with MGDP as the independent variable, written as:

\[
\text{Pricons} = 82.72 + 0.382 \text{ (MGDP)} \quad (7-40)
\]
\[
\text{Pricons}_{2000} = 82.72 + 0.382 (723.42) \quad (7-41)
\]
\[
= \text{EC$352.07 million}
\]

Government consumption would then be written as:

\[
\text{Govcons}_{2000} = 515.08 - 352.07 \quad (7-42)
\]
\[
= \text{EC$163.01}
\]

St. Vincent and the Grenadines’ regression analyses with MGDP as the independent variable, and consumption and private consumption individually, as the dependent variable were successful. The linear equation can then be written as follows:
Government consumption is calculated as:

\[
\text{Govcons}_{2000} = 843.17 - 652.65 = \text{EC$ 190.52}
\] (7-46)

The success of MGDP as an explanatory variable, and a predictor of total consumption and private consumption is plausible, given that consumption is demand derived. The ability to consume is directly related to the amount of economic activity in the economy.

The relationship between GDP at market prices and consumption correlates to economic theory. MGDP is the result of aggregate supply within the local economy, and aggregate demand within the local economy translates into consumption. Consumption would be determined by current prices, and not prices pertaining to a period in time, as consumers purchasing power parity is related to present prices. It follows therefore, that consumption could be predicted by MGDP as an independent variable.

Aggregate Consumption is twofold, considering both private and government consumption, where regression analysis first using a multivariate approach can be done. The outcome indicates that, as with aggregate consumption, MGDP proved to be a fairly good predictor of private consumption (Pricons). The two dependent

Consp = 31.39 + 0.7934 (MGDP) \quad (7-43)

Consp\textsubscript{2000} = 31.39 + 0.7934 (1023.16) \quad (7-44)

= \text{EC$843.17 million}

Pricons = 21.36 + 0.617 (MGDP) \quad (7-45)

Pricons\textsubscript{2000} = 21.36 + 0.617 (1023.16)

= \text{EC$652.65 million}

Govcons \textsubscript{2000} = 843.17 - 652.65

= \text{EC$ 190.52}
variables, private and government consumption are both good determinants of future demand.

Macroeconomic theory dictates that people's level of spending (pricons) indicates the performance of MGDP, and during expansionary periods, the level of consumption would rise. The converse is true, because during recessionary times the economy contracts, and the level of consumption tend to fall. Government consumption greatly affects the economies of small countries, especially as it is usually the largest employer and investor in the economy. Nonetheless, as economies advance and diversify, the proportion of government spending to GDP falls. Small economies however, are dependent and are affected by changes in government policies, and they are usually at the mercy of the economic performance of the main trading partners, which in the OECS case, would be the USA and the EU.

7.7 INVESTMENT

Investment relates to the rates of investment, both public and private, at current prices. Investment is expressed as a definitional equation, where the rate of investment at current prices is assumed to be a determinant of the rate of savings. This is not fixed, as foreign investment can be injected in any given year by a change in government policy, or by a development project. One factor in developing countries, and especially those that are developing their tourism sectors, is the realism that investment projects tend to be continual. In addition, a development project that occurred during the 1980s cannot be used alone as an indicator of massive increases to the capital stock during the 1990s. Indeed, it is one limitation of the model.

The OECS model is concerned with the medium term, including the fact that econometric models are rarely done in abstract terms. The knowledge of government policy can be used to obtain other independent variables (dummy), to obtain a better fit. For this treatise however, the assumption will be made that investment is
dependent on savings and foreign investment, (given the small size of the economies), express in current prices. The equation can be written as:

\[ \text{INV} = f (\text{SAV}, \text{FINV}) \]  

(7-47)

Forecasting with investment as a dependent variable, and the rate of saving and foreign investment as independent variables had a weak positive correlation on all the tests for the OECS model (see Table 7-4). It seems likely that investment in the Caribbean is driven from outside the region, based on sporadic investment projects. The ability of a small nation to use its savings to fund significant investment projects is limited. Limitations exist due largely to size, as the islands contain small populations on the one hand, and relatively low levels of economic activity in the OECS area on the other. Small populations even if thrifty, would be unable to add large quantities to the capital stock. The inability of the model to predict future investment is restricted therefore, by the lack of knowledge of the likelihood of future investment projects.

St. Lucia, and St. Kitts and Nevis were the only islands to have a relatively strong correlation between the independent variable private (prinvest) investment (includes foreign investments, and the dependent variable investment (invest). These islands' RGDP appear to be 'driven' by the cumulative rate of investment. The type of investment is private, as opposed to public investment, which is largely due to the increase in tourism development during the 1980s. Montserrat's RGDP is "driven" solely by the cumulative rate of investment, but consequently private investment was a weak indicator of investment. Grenada and St. Vincent and the Grenadines also pointed to the cumulative rate of investment as strong predictors of future RGDP. Yet private investment showed a weak correlation to investment, which suggests that public investment may be the main determinant for these islands.
Chapter 7: A Medium-Run Forecasting Model of the OECS

The equation to show private investment as an independent variable of St. Lucia's total investment, can be written as:

\[ INV = 92.88 + 1.082 \text{ (prinvest)} \]  \hspace{1cm} (7-48)

where the ratio of savings to investment is calculated to be 0.3095, and the change in the saving to investment ratio is -0.002, which implies that investment is not derived from local savings, but from foreign investment.

St. Kitts and Nevis investment equation with private investment as the independent variable, can also be written as follows:

\[ INV = 14.30 + 2.09 \text{ (prinvest)} \]  \hspace{1cm} (7-49)

Similar to St. Lucia, the ratio of savings to investment in St. Kitts and Nevis (0.547), and the change in the savings to investment ration (0.011) indicates that, investment is largely foreign investment.

If private investment occurred through national rates of capital formation, then projects for future private investment would enable the forecaster to predict future investment. The major reliance on foreign sources of investment, allows for forecasting unreliability.

7.8 TOTAL EXPORTS

Total exports are demand derived, typically from outside the region for the OECS model, although some regional demand exists. Total exports embody goods and services, and in the OECS countries, goods are largely bananas. Indivisibles are mainly tourism expenditure. Visual exports and tourism expenditure forecasts were
computer generated, and then incorporated into equations to give approximations of future total exports.

Antigua's economy is dominated by services, and Dominica's economy is based on agriculture, hence, these islands were used as case studies to show the efforts of exports, imports and the effects on the balance of payments. Total export can be defined as:

\[
\text{Exports} = f(\text{Visex, Tourexp})
\]

where:

- Visex is visual export (agriculture and manufacturing goods)
- Tourexp is tourism expenditure

for most of the countries in the OECS model.

In the case of Antigua and Barbuda, tourism expenditure, in the year 2000, is forecasted to be EC$1377.12 million, and visible export forecast result for the same period were EC$147.09 million. Total exports would be written as:

\[
\text{Exp}_{2000} = 147.09 + 1377.12 = \text{EC$1524.21 million}
\]

Total exports for Dominica can be calculation using the same formula, by which:

\[
\text{Exp}_{2000} = 219.54 + 135.53 = \text{EC$355.07 million}
\]

Another format to project total export would be, the forecasting of the 14 year time series data that would give future totals. This is a simpler approach as, the
determinants of total exports would not have been detected before the forecast can be done.

7.9 IMPORTS

Total imports can be derived by a definitional equation at this stage. The comparison of domestic supply of goods and services (MGDP), with aggregate demand would determine excess demand. Excess demand would take the form of importation, thus the equation would be written:

\[
\text{Imports} = \text{Exports} + \text{Consp} + \text{Inv} - \text{MGDP} \quad (7-53)
\]

The calculation of the various components of the equation would result in the derivation of total imports. One example would be the use of the data on Antigua and Barbuda, one of the worst culprits of high importation. The equation can be written as:

\[
\text{Imports}_{2000} = 1524.21 + 1027.55 + 579.53 - 1527.15 \quad (7-54)
\]

\[
= \text{EC$1604.14 million}
\]

A comparison can be drawn with Dominica, as it is among the islands with the lowest imports. To decide its total imports in 2000 AD. The equation can be written:

\[
\text{Imports}_{2000} = 355.07 + 217.62 + 209.63 - 219.54 \quad (7-55)
\]

\[
= \text{EC$562.78 million}
\]

The assumption in both equations, for Antigua and Barbuda and Dominica is that the level of investment, consumption, exports and MGDP growth rates would remain as it had over the last 14 years. The likelihood of major changes on Antigua and Barbuda from the years 1992 to 2000 is lessened, as the islands' scope for further
development is limited by the lack of natural resources. In the event that economic sectors advance, such as offshore finances, exports would increase. One can assume that only gradual changes would occur in the medium-run. The similar discussion can be addressed to Dominica. Nonetheless, imminent plans to introduce mass tourism, ipso facto the subsequent development of Dominica's tourist sector are likely to result in rapid increases in imports. Evidently, this would not occur in the medium-run, but the probably exists that the assumption would be proven false.

7.10 BALANCE OF PAYMENTS

An estimate of the balance of payment (BOP), in the year 200, can be ascertained as total exports and imports are known, hence in the case of the Antigua and Barbuda's economy, the equation can be written to give:

\[
\text{BOP}_{2000} = 1524.21 - 1604.14 = \text{EC$ 79.90 million}
\]

Balance of payments deficits are endemic to the Caribbean, due to the low levels of agricultural and manufacturing output, which results in high imports. Additionally, there are very few export goods, and although the present export sectors are expected to grow, unless exports increase faster than imports, balance of payments deficits will remain. Dominica has one of the lowest rate of imports, and its main export is a "visible" crop, hence a comparison can be drawn, and an equation can be written to give:

\[
\text{BOP}_{2000} = 562.78 - 355.07 = \text{EC$ 207.7 million}
\]

It is surprising that, given that imports are low in Dominica, the balance of payment is a deficits. As the projected export earnings are low hence, the balance of payment
deficit in Dominica is predicted to be higher than in Antigua and Barbuda. Antigua and Barbuda have higher export earnings than Dominica, but given the high level of imports, a balance of payments deficit will nonetheless, remain.

7.11 CONCLUSION

The foregone analyses show the methods, results of aggregate supply and demand components of the OECS models, and the role of the economic sector's contribution to RGDP. Future GDP trends must first be studied to determine their major components, which would allow researchers to project the disaggregated variables of GDP. Tourism expenditure proved to be the major "driving" force behind the economies of the OECS, followed by the cumulative rate of investment in Montserrat. St. Kitts and Nevis' economy is "driven" by tourism and the cumulative rate of investment. Agriculture is an important component of RGDP in Dominica and Grenada.

Consumption in almost all the islands (except St. Lucia), was a function of MGDP at market prices. MGDP was the main predictor of future aggregate consumption and private consumption. Investment in the OECS group of islands is derived from exogenous sources, as the local capital formation is retarded by size. The rate of investment regression model showed no significant regressors. Exports can be projected by forecasting total exports in the future, which is the method that is most reliable. The accomplishment of the foregone would allow for the projection of future imports, by employing the relevant component of aggregate demand and supply.

The successful completion of the model, using the disaggregated components of GDP is germane to any study of an economic area. It is essential that the sectors that are pertinent to the economy's functioning be known. This knowledge would aid policymakers to devise strategies to effect the most benefit from the successful areas, through planning and development. The weak economic sectors could be detected
from the model, judging that they were not significant determinants of RGDP. Hence, methods to improve their viability can be devised by policy makers, which would aid in a diverse economy.

The model is limited as it cannot predict the feasibility of an activity that never existed in the economy. Therefore, if an activity is introduced, only over time, preferably a ten year period, could its future impact on the economy can be assessed. The model is concerned with current variables that can be used for predictive purposes only.

The previous chapters were based on the secondary research, whereby the economies were analysed, as well as the outline of the EU and the Caribbean's relationship. The following chapters are based on the primary research, and the relationship between the primary and secondary research findings. These chapters conclude the overall deliberations regarding the research question's of the economic development of the Caribbean, and the role of tourism development from an EU perspective.
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8  EMPIRICAL ANALYSES OF ECONOMIC DEVELOPMENT PROBLEMS

8.1 ECONOMIC DEVELOPMENT CONSTRAINTS OF ISLANDS

The primary research findings, similar to the secondary research of this treatise on the Caribbean are concerned with economic development issues, and indeed, economic development is an issue of all countries. Development has been a focus of study of classical economists, 'from Adam Smith to John Stuart Mills, from 1760 to 1870' (McCormick 1977:679), where 'visual evidence - poverty, starvation and disease - are reliable indicators' (McCormick 1977:678). Today, development as a concept however, should imply sustainability, and the ability of a country to provide economic well-being to its citizens by raising the standard of living, what Goulet (1971) has defined as, life-sustenance, self-esteem and freedom. Economic well-being, and standards of living can be judged by per capita incomes. Moreover, development should be multidimensional, encompassing financial, social and environmental factors. Industrialised countries' developmental concerns are usually regional; rural development stemming from causation, such as loss industry. Conversely, developing countries in general (Demas 1965), and islands in specific (Dommen and Hein 1985, Commonwealth Consultative Group 1985, Diggines 1985), have disadvantages that retard their developmental process (Kuznets 1963).

Although not all islands are economically marginalised, economic historical factors (Nafziger 1990), and limitations of natural endowments on one hand (Stree ten 1993), and human and physical capital on the other (Milnê 1992), to varying degrees, have characterised the Caribbean islands. Economic development constraints discussed in relation to the Pacific islands (Kakazu 1994) are in many ways similar to those in the Caribbean region. Although, additional problems that are indigenous to the Pacific region, epitomised by remoteness, insularity, and isolation may not be germane to the
Caribbean; it is perhaps the only area in the world that can be fairly compared with the Caribbean. This is largely due to the physical, and economic similarities, but the present jet age and the proximity to metropolitan centres, particularly the United States and Canada, have reduced the Caribbean’s isolation. It is because of this proximity that tourism has been developed so effectively in the region, nonetheless, the Caribbean islands are just as small and insular as the Pacific islands, thus problems of size pertain to both. The major limitation of investment funds to develop the framework to facilitate industry, namely tourism development, which would effect economic development, is germane to both regions.

Small islands constitute the vast majority of the Caribbean region, but smallness here is defined by specific variables. Smallness refers to economies that are less diversified, due in part to size - population and physical land mass, and lack of technology. Islands suffer from diseconomies of scale with all the factors of production, land size, labour market, and capital for investment (Dommen and Hein 1985, Williams and Shaw 1990, Wilkinson 1989). The economies continue to suffer from economic constraints, _inter alia_, rising prices of imports, foreign exchanges problems, (CDB 1980), and the 'boom-bust' cycles of international markets. Indeed, this is one criticism that Karl Marx (1971) had made pertaining to the capitalist system, by which economies are based on a consumption thesis. Consumption, he postulated, expanded slower than production capacity, which creates underutilisation of resources. Evidently, he ignored technological advances (Hagen 1980), and the advantages to the production process. The Keynesian model aimed to address the underutilisation of resources, where the elasticity of supply exists; but the Caribbean typically has inelastic supply of the factors of production, and in many cases there exist the underutilisation of human resources.

Island economies, due to indivisibilities and specialisation, have high unit cost of production (Vakil and Brahmananda 1963, Doumengé 1985), which is difficult to
rectify given the small size. Additionally, high per unit costs exist for transportation, investment, administrative services, and consumption (Lewis, 1964, Robinson 1963). The foregone results in island economies being dependent nations (Briguglio 1993), depending on the developed countries for aid, development funds, and technology. Infrastructure development and training of specialised manpower are major investments that small economies are ill-afford to provide. Yet, these investments are needed, if development is to occur, and to provide for industrial organisations, such as tourism. The level of attainable sustainable development is therefore circumscribed by 'foreign' sources (Harrigan 1974, Sutton 1991). It is a fact that, 'small countries also tend to get more private capital from abroad, as a ratio of total capital formation' (Streeten 1993:200). The challenge of the policy makers remains in the choices that are employed in the most efficient use of these resources. Included, the ability to overcome the retardation of smallness can be addressed. Attempts can be made by *inter alia*, the effectiveness of closer societal cohesion, fostering positive attitudes towards work and commerce, and institutional organisations.

Typically, as the Ricardian and Hecksher-ohlin trade models have explained, islands tend to specialise in a few activities for exports (Svennilson 1963, Södersten 1972, Streeten 1993), based on the theory of comparative advantage. As economies advance from the subsistence stage to the secondary and tertiary stages (Todaro 1994), imports of consumer goods and services increase dramatically (Kuznets 1963). More land is diverted from subsistence farming to export production, what Kakazu (1994) terms as 'import replacement'. Land in the Caribbean was displaced for export cultivation, almost from their inception, but the Pacific islands have had more recent land displacement, given that their tourism development is more recent. American Samoa, Guam, French Polynesia, New Caledonia, and Indonesia are the more developed economies in the Pacific; with Indonesia being the most developed (The World Bank 1994). Western Samoa, Papua New Guinea, and the Solomon Islands' economies are very much at the subsistence stage of development. Conversely, no Caribbean island
is at subsistence levels, all have undertaken some form of 'plantation' cultivation for export. Plantation cultivation means that very little room is left for local food production, which results in a vast majority of food being imported. Imports exacerbate the balance of payments deficits, although improvements are made by tourism expenditure (Baretje 1987), as it is an 'invisible' export.

According to the structural-change models, as economies advance from the subsistence stage, imports tend to increase. Additionally, as the Lewis theory of development explains, urbanisation increases, as more land is converted to the export crop, people become marginal to the land (Lewis 1954). Surplus labour immigrates to the central business districts, with increases in job creation in the manufacturing and service sectors. Where this process proves to be unsuccessful as a means of procuring adequate livelihood, out migration occurs (Betram and Watters 1986). To a large extent this has happened in the relatively more developed islands, and the process continues in the agricultural based Caribbean.

In general, when islands produce primary products for export, they are largely not in a position to influence world prices, and experience non participation on international trade. Small nations as they 'cannot influence their price, are a price taker and its terms of trade are outside its control' (Dommen 1985:120). Prices are only given in the case of a cartel situation of an important crop, for example coffee or cocoa, where influences are made collectively. The reliance therefore on agriculture as an activity to effect economic development is limited. Islands that are agrarian based have undoubtedly, the lowest GDP in the Caribbean. Economic diversification is therefore needed, and should be possible in services, other than government services.

Generally, small economies have to be 'open' (Streeten 1993), and usually tend to be 'very open' even in the long-run. In the longrun, for example 20 to 40 years, regional or local consortia management could replace some industries' management,
such as hotels, which have previously been held by foreign establishments. It cannot be stressed enough that increased efficiency, coupled with a higher degree of entrepreneurism, can only be accomplished with improved education and training. Advancement in education that is applicable to island economies, will be vital to islands’ long term ability to control and run industries (Shaw and Williams 1990).

The diversification away from agriculture has become a factor in the Windward islands, by which tourism development is being embraced to effect economic development. Diversification into tourism, manufacturing and other services, other than government services, can only become a reality if islands can attract foreign capital. The dependency theorists would disagree with this approach, stating it as dependant and neo-colonial. Frank (1967) goes as far as to say that the developing countries should withdraw from the capitalist system, due to their continual exploitation by the metropole (Testers 1990). The problem remains that nations cannot survive in autarky, as the world is an interlocking economic and political system. The Caribbean is intrinsically linked to the metropole for gains and losses.

Conversely, at the heart of classical and neoclassical theories of development, as was outlined by the Harrod-Domar Growth Model, is the issue of the level of capital formation. The accumulation of capital was seen to be pivotal to increases of national income. The model assumes a direct relationship between the level of capital (K) and the level of income (Y). Let us assume that it takes $5 of capital to produce $1 increase in Gross national income (GNP), then any increase in capital should result in the increase of income, ie. the capital-output ratio would be 5 to 1. The equation points out the changes in capital to effect investment, given:

\[ I = \Delta K \]  
\[ \Delta K / \Delta Y = \alpha \]  

or,
\[ \Delta K = \alpha \Delta Y \]  
(8-3)

where:

\( I \) is investment  
\( K \) is capital  
\( Y \) is national income (GDP)  
\( \alpha \) is the capital-output ratio

If savings \((S)\) were substituted for capital \((K)\), and incorporated into equation (8-1), the equation would be:

\[ I = \Delta S \]  
(8-4)

If,

\[ S = S(y) \]  
(8-5)

then incorporating equations (8-3, 8-4, 8-5) to give:

\[ S = \Delta S(y) = \alpha \Delta Y \]  
(8-6)

Capital formation was seen originally to be fixed in a particular nation, but there has been no conclusive evidence put forward to suggest that, local capital formation is necessary to increase the investment in a particular country (Thirwall 1992). Indeed in a global financial arena, investment can be procured from abroad, without the need for capital formation in the receiving country. The level of local savings is inadequate to foster investment, as characterised by the low income levels, in developing countries, and the Caribbean is not exceptional. The propensity to save may be relatively high, but because population and national incomes are relatively low, capital formation is also low. Moreover, consumer goods and services may not be abundant, as they are available in industrialised economies, and the way of life might remain more traditional, hence saving rates are higher. Nonetheless, the low economic
growth can be attributed to the lower levels of growth of output, output per labour or labour productivity, and output per investment. The growth rates of national income depend on the increases in labour productivity, capital accumulation and technological use. Low labour productivity can be characterised by low human investment, thus the advances of knowledge through training and development, and technological advancement are the main precipitator of high productivity levels. Capital investment where it is needed in the Caribbean, where local capital formation is low, should be procured from foreign sources.

Figure 8-1

- Capital (K)
- Labour (L)
- $x > y$ or $k > 1$
Invariably in the past, the Caribbean region has suffered from low economic growth, resulting from low investment ratios and low productivity. Moreover, the industrial activities were such that heavy capital investment was deemed unnecessary, with export farming, small-scale light manufacturing, and commercial banking as the only economic occupations. Tourism development requires large quantities of capital and labour, where in the Caribbean, capital is imported and labour is provided locally. Hotels, for example, require massive amounts of capital, and the public facilities to accommodate the visitors industries are major investment projects. To the extent that these inputs are scarce, (largely because of low capital formation in the region), the shortfall must therefore be procured from abroad to aid in the development process (Reime and Hawkins 1979).

The Caribbean due to size and its disproportionate position in the world's economic sphere (Clarke 1987, Diggines 1985, Handel 1981, Lipton 1977, Vital 1967, 1971), has no choice but to specialise in the areas that it has the comparative advantage. The Caribbean has a relatively large pool of unskilled labour (L) (see figure 8-1), and little capital (K), hence L > K, in the Caribbean, where the capital to labour ratio is lower than in the EU. In the majority of cases, 'if microstates want to increase their export earnings in order to maintain and improve their standard of living, there may indeed be no economic alternative to tourism for some of them if they lack other resources' (Wilkinson 1989:161). Wilkinson continues to postulate that, 'the task should be to lessen the negative impacts and to increase the positive impacts of tourism'. This is indeed the challenge of the Caribbean islands.

Neoclassical theorists stress the function of the free market system and open economies, as a path to development. The Caribbean economies had for the most part, categorically embraced this 'openness'. However, the improvements of the functions of factor inputs, i.e. the factors of production and technology, must be continual, in order to sustain growth, given by:
Q = f (L, H, K, T) \hspace{1cm} (8-7)

where Q is output, L is land, H is labour, K is capital and T is technology.

Land for tourism development is available at the moment in most islands, and labour for most levels of operation in tourism is present. The question of effective underutilisation, as expressed in the Keynesian model, pertains to the region, as capital and technology must be imported to facilitate growth levels. Todaro (1994) pointed out the need for major investment to facilitate economic development, a fact that has been accepted and adopted in the Caribbean.

Foreign investment in the Caribbean however, is associated with high leakages, whereby profits are freely repatriated, and high expatriate labour are less likely to save locally. Thus, national Income (GDP) is adversely affected by the lack of reinvestment of retained earnings. Hirschmann (1958) postulated the need for retained earnings to be mobilised and invested in the national economy, a factor that largely may not occur in the Caribbean, as the freedom to repatriate profits is granted. Notwithstanding, investment is integral to growth (Thirwall 1992), and the ability of the islands to obtain funds to increase investment ensures economic viability. Massive quantities of investment funds, and technological transfers (Brandt 1980) are needed therefore, particularly inward foreign investment to effect the economic process.

GDP is currently the major measurement of development, but important variables such as literary rates, access to comprehensive health care, automobiles per household, and doctors per capita are factors that are also used by international bodies such as the United Nations. GDP is the main source of measurement in this treatise, defined as:

\[ \text{GDP} = C + G + I + E - M \hspace{1cm} (8-8) \]

where:
Chapter 8: Empirical Analyses of Economic Development Problems

GDP - National Income
C - private Consumption
G - government spending
I - investment
E - exports
M - imports

Consumption, investment and imports are a linear function of income, as expressed:

\[ C = C_0 + C_1Y \]  \hspace{1cm} (8-9)
\[ M = M_0 + C_1Y \]  \hspace{1cm} (8-10)

And, government expenditure may also be related to income, as taxes are derived from income. Imports are derived from income, and taxes are also derived from imports (excise duties). The demand for government services is somewhat, but not wholly, a function of income, as governments can obtain funds from abroad (Aid), but in the domestic economy, as is given:

\[ G = G_0 + G_1Y \]  \hspace{1cm} (8-11)

Repatriation of profits and expatriate remunerations, including high imports, lower national income by decreasing net exports (E-M). High imports without a comparable increase in exports, would result in current account deficits, where:

\[ CA = E - M \]  \hspace{1cm} (8-12)

where:

CA - current account/trade balance
E - export
M - imports
S - savings

ie. E < M

where current account deficits weaken economic growth, as:

\[ M = \Pi + R + m \] (8-13)

where \( \Pi \) is profit, R is expatriate remuneration and m is import of goods.

If equation 8-2 is included in equation 8-16, then:

\[ M = -Y(1 + \Delta Y) + \Delta Y/Y = -S/K \] (8-14)

Therefore, as economic growth weakens, the overall aggregate level of investment decreases, as the ratio of saving to capital investment decreases, assuming the level of foreign investment remains the same. As a result, the level of growth and the size of national income decreases, due to current account deficits.

Economic development with relation to specific social factors can be supported by hosts of theories, with the view that, rapid population growth and high out migration are positively correlated to poorer countries, and in specific, islands (Milne 1992, Kakazu 1994). High population growth rates place considerable pressures on the social systems which the economy would be unable to provide. Thus, low economic activity, low economic growth, and high imports, compounded with high population growth, would result in the deterioration of living standards, and real per capita incomes. The high levels of out migration aid in alleviating some pressure on the socio-economy (Hudson 1989). But as immigration policies of the metropolis have
continued to restrict immigration, social pressures resulting from related problems have become evident, in view of the world’s division of labour.

Economic development concerning environmental issues can be discussed in relation to the Caribbean oceans, whereas the islands, although rich in fish, especially deep-sea fishing, have being experiencing lower yields, particularly low for inshore fishing. The main deterrents to marine survival are environmental hazards such as; untreated sewage disposable in the sea by hotels; boats and yatches’ waste disposal and careless anchorage in the sea; dredging of sand for construction; and development in general. These problems have been highlighted by environmental awareness groups (Caribbean Conservation Group 1991). Moreover, in view of Barbados being the host of the World Summit on the Environment in 1993, the problems of small islands fragile ecosystems have been given international exposure. The foregone reinforce the need for tourism and other services to be managed well, if they are to remain a tenable and sustainable option to economic survival. Coast and land management nonetheless, need urgent long-term planning and implementation (McElroy, de Albuquerque and Towle 1990), if development is to be sustainable (Mikesell 1992, Sinclair 1991).

Tourism was established fairly early on in Antigua and Barbuda, Barbados, Bermuda, the Bahamas, Jamaica, and on a smaller scale on most of the Leeward islands. Cuba had an established tourism sector before the revolution, but it has suffered from a host of problems that are inherent in socialist based economies. It is within the context of tourism development, that the advances made to achieve economic development has been explored. Tourism development, if managed well can serve as a catalyst to economic development (Demas 1965). Indeed, it was tourism development that afforded Bermuda and the Caymans to become the recipients of high standards of living. This is true, to a lesser extent of Antigua, Barbados, and the British Virgin Islands (BVI), as indicated by both their per capita incomes (GDP), and overall levels of development.
The expansion of international trade, expounded by classical economists - Adam Smith and later David Ricardo, whereby export-led industries dominate the economic base was seen as the basis for economic development. Likewise, neoclassical development economists emphasized that trade is not only essential to economic growth, but largely economic growth depends on trade (Greenaway and Milner 1993). Tourism in the Caribbean is an export, where attempts at international trade expansion seem only possible through this economic sector.

Presently, Western European (European Union) tourists are marketed to more aggressively by the Caribbean, as a means of broadening demand. Demand, a priori, had concentrated largely on the North American market. Undoubtedly the reliance on one market, in view of tourism's high income elasticity, increases vulnerability and dependency (Bruguglio 1993, Commonwealth Consultative Group 1985, Handel 1981).

The service industries have become the main economic activity in the Caribbean, with services representing between 50 to 85 percent of GDP (Charles 1993). The tourism sector is the most important, whereby its role as the major foreign exchange earner (Wilkinson 1989) is unrivalled, hence its absence would result in economic retardation. Tourism dependency, although risky, (Richard 1982, Wilkinson 1987) has managed to be viable up to present. It has a long history in the region, organised from 1907 (Aspinall 1935), hence, the trend is likely to continue in the distance future.

The consumption of the products occurs at the origin of production, and the consumers are largely from northern countries. The receiving countries' adverse political climate, natural disasters, and socio-economic problems can therefore have detrimental effects on the industry. Moreover economic downturn in the generating countries usually results in an adverse change in demand, and consequently the
economy. Although the oil crisis in the latter part of the 1970s, and the recessions of the 1980s have seen a downturn in arrivals, arrivals have nonetheless increased. Political disruptions in Jamaica during the 1970s, and Grenada during the early 1980s, have had negative effects on their tourism sectors. But the negative effects have been short-lived, although constant criminality can tarnish a country's image indelibly. Caribbean economies should nevertheless, attempt to broaden their economic bases, as well as making committed efforts to circumvent problems that might adversely affect the industry, and by extension, the economy. The challenge of smallness nonetheless remains, and the reduction on dependence is germane if long-term economic development is to be sustained.

The negative changes in the generating countries' economic situation, either due to policy or economics directly affect tourism economies. The negative affects are not overstated, given that:

\[ Y = \alpha + \beta x + \mu \]  \hspace{1cm} (8-15)

where:

- \( Y \) - Caribbean GDP
- \( x \) - real growth of EU GDP
- \( \alpha \) - constant growth
- \( \beta \) - coefficient of \( x \)
- \( \mu \) - error term

To expand model (8-18) by accounting for time, given:

\[ Y_t = \alpha + \beta_1 x_t + \beta_{t-1} x_t + \beta_{t-2} x_t + \beta_{t-3} x_t + \mu_t \]  \hspace{1cm} (8-16)

where:

- \( Y_t \) - dependent variable (Caribbean GDPs)
\[ \alpha \] - growth without international trade
\[ \beta_1 \] - coefficient of EU GDP growth rate
\[ \beta_{t-1} \] - coefficient of EU GDP growth rate lagged one year
\[ \beta_{t-2} \] - coefficient of EU GDP growth rate lagged two years
\[ \beta_{t-n} \] - coefficient of EU GDP growth rate lagged \( n \) year
\[ \mu \] - Error term

and:
\[ \beta = \frac{\sum x_i y_i - n \bar{x} \bar{y}}{\sum x^2 - n \bar{x}^2} \tag{8-20} \]

\[ \alpha = \bar{y} - \beta \bar{x} \] (a constant) \tag{8-21}

where:
\[ i = 1, 2, \ldots n \]
\[ E(\mu) = 0 \text{ for all } i \]
\[ E(\mu_i \mu_j) = \text{ integral } 0 \sigma^2 \mu \text{ for all } i \text{ not equal to } j, \]
\[ j + 1, 2, \ldots, n \text{ for } i = j, ij=1,2,\ldots,n \]

The foregone equations show the dependent nature of the economies on the generating countries GDP growth rates, in this case, that of the Europe Union. Expansionary economies (increases in \( x \)) foster job creation that increases the margins of disposable income, assuming taxes and inflation remain stable. Higher levels of disposable income lead invariably to more income being spent on travel (Devas 1991). Given the Caribbean’s comparative advantage in ‘resort tourism’, and with the present
positive trend, holidays to the region should increase. Increases in tourism arrivals should directly, indirectly and inductively favourably impact the regions' economies, through increases in tourism expenditure, *ipso facto* increasing National Income (Y).

8.2 THE ECONOMIC IMPACT

The income multiplier measures the impact of tourism expenditure on the economy. Detailed analysis should be carried out by the use input/output models. In general, increased trade result in high leakages through high imports, and as small economies concentrate on production chiefly for exportation, imports increase for most consumer goods and to a lesser extent for services. Tourism in particular, correlates to high imports, hence leakages are high, existing at all levels of the industry (Bryden 1973, Archer 1989, Archer and Fletcher 1991). As a holiday is purchased, the airline ticket and accommodation, perhaps in London, Paris or Frankfurt, part of the revenue goes to the airline carrier. Often, it would not be a Caribbean owned/operated airline.

Most of the top resort hotels are owned/operated by Multi-National Corporations (MNCs), international management companies, millionaires or consortia (Butler 1993, Weaver 1988). Thus, significant portions of the profits are repatriated to the metropolis (FT 1993). To the extent that the holiday is 'all-inclusive', or where little interface exist with local establishments - restaurants, sports, shopping and tourist facilities, more money will leak out (CTO 1994). Most of the direct impact is therefore minimal. Hotel furnishings, fixtures, appliances, and food, may be all imported (or a large majority would be), thus more money leaks out.

The top and most often middle managers are expatriates, non nationals/non residents, whose savings are withdrawn from the economy. The remaining jobs are performed by the local peoples, but for the most part, the jobs are low skilled and relatively low
paid. Where locals are the recipients of middle, upper management, or other jobs, their relatively higher incomes do impact the economy more forcefully through the second round of spending.

Leakages are due to many factors, but the overriding explanatory factor is the narrow economic base of the domestic economies. As international trade increases (in tourism), the need for banking and insurance services increases. In the short run, these services are met by foreign companies, and to the extent that the economies develop, these services can become localised. Tourism development embodies services that must be met by international companies, such as the issuance of credit, charge cards; MasterCard, Visa and American Express; and insurance. Destinations must offer the ability to purchase with credit cards, therefore local representatives must be installed. The 'spinoffs' of other jobs due to tourism activity is given almost no review in the Caribbean, yet it is the major contributor to the private sector services growth.

Spending within the economy provides employment, due to the increased demand for goods and services, which are purchased in the local economy. The increases in income serve to boost all economic sectors, by which employment and income are generated, result in third and fourth rounds of spending, through the induced effects (Archer and Fletcher 1991). Local governments receive a fair amount of tourism tax, on hotel accommodation, embarkation fees, and communication costs, as much as 31% in Antigua and Barbuda, 23.2% in S. Lucia and 20.2% in the BVI, in 1990. Moreover, small amounts of tourism spending might be in the local communities, for souvenirs and drinks at sightseeing places. The 'trickle-down effect to the local retailers however, may be minimal.

If the economies expand as a result of this new activity, and it has in the Caribbean, pari passu the marginal propensity to import (MPM) in general, will increase (Hills
and Lundgren 1977, Seward and Spinrad 1982). As all members of the community benefit, and redistribution of income continues, the average propensity to import will rise, as the import function shifts to the right (Bryden 1973).

In view of the stable exchange rates *sui generis*, domestic prices over the years have increased and greater substitution by imports continues. Domestic goods have being substituted with imported goods. One example would be the price of fresh fish in the Caribbean, that has increased significantly, such that imported poultry is often substituted. Input/output models will as a result of the high import, indicate a dependent change in the inter-industry coefficient, so that the income multiplier (derived from Keynesian theory) will be lessened as a result of the high import coefficient.

8.3 THE IDENTIFYING VARIABLES RETARDING DEVELOPMENT

Caribbean economic development *sui generis*, within the developing world’s context is good, but problems are apparent, which are specific to a few islands, or regional. The problems relate to economic issues that are both macro and micro, as well as, socioeconomic, political and environmental factors.

Agriculture based societies typically have less evidence of economic development, due to low national income and the lack of progression to the industrial stage (Thirwall, 1992). Tourism based economies due to the high leakage problems, consequently obtain less economic benefit (Archer 1978, Seward and Spinrad 1982), thus, national income growth rates, and by extension, per capita incomes are lessened. These major deficiencies are causative factors of inadequate investment spending, both for physical, human, and environmental development. There appears to be a lack of concomitant leadership in the Caribbean, as there are ‘commonly lack of official local plan that is a serious impediment to development control’ (Hudson 1989:206). Long-term
planning and policy measures, and government spending seem to be inadequate, and are 'even more difficult in micro-states ... when their governments deal with large foreign and multinational corporations' (Hudson 1989:206). The findings highlight the problems of destinations that could result from the inadequacy of planning, resource allocation, political will, and low incomes.

8.4 THE DEMOGRAPHIC PROFILE

The demographic profile of the tourists respondents showed no unusual patterns. The region, because of its distance from the EU, thus price of travel, is relatively more expensive than from the US. Therefore, as is expressed in the literature, the research profile reflects the ability of visitors to afford long-haul destinations (Devas 1991). The profile fits the literature review of current trends in travel and tourism (BTA 1987, CSO 1992, Devas 1993), and the world's labour economics. In general in the developed world, most people work in the services industries (The World Bank 1987), and the findings reflect this trend. Most persons worked in a service capacity (80%), either in travel or communications, entertainment, retail or marketing, and finance, real estate or insurance.

The vast majority of visitors were between the ages of 36 to 70 years (82.3%) old, with the largest group between 36 to 50 years (37.4%), with the majority having had some form of tertiary education (62.6%), and a significant number holding university degrees (25.3%). Devas (1991) found that over 75% of people who go on holiday (in general in the EU), tend to be between the ages of 30 and 69 years old, and the highest group usually would be between the ages of 30 to 39 year old, which were similar to this study's findings. He also found that there is a high correlation between education factors and income, whereby the higher the level of education, the greater the propensity to take a foreign holiday. Tourism is income elastic.
Most persons who took part in this survey (60.1%) had visited the Caribbean in the last 5 years, and took two (43.9%) or three (28.7%) holidays annually. Similarly, to the question of income, and the ability to afford long-haul travel, the age distribution correlated to the UK household surveys (CSO 1992) age distribution and income. The study controlled for a balance between male and female, and that was achieved, whereby 46% were male, and 54% were female respondents. Most respondents were married (65.4%), with no children living at home (56.7%), and had household incomes were over £35,000 per annum (51.1%). There were 71% of persons who earned £25,000 per annum, 18.4% lived alone, and 7.2% lived in a three family household. Respondents originated from various parts of the UK, but there was a larger concentration of respondents from the South East of England (53.9%), the wealthier area of the country.

There were no notable differences between the responses from the various EU countries (the industry survey), and the UK's industry. Identification of problem areas in the Caribbean was such that, if crime was noted to be a problem in a given island, it was pointed out not by only one EU group, but was evenly distribution throughout the countries. Developmental problems could be discussed in a general sense on each island, without problems of bias, cultural or regional differences from the various respondents.

8.5 THE EMPIRICAL RESULTS

The findings suggested six main issues, concerning crime, cuisine, culture and entertainment, expense, hotel facility and service, infrastructure, poverty, and vendor hassling (see Tables 8-1 and 8-2). Of course, due to time lags between visits, findings and reporting, some problems may have been corrected on the islands. Statistical significant is given at 1% to 5%, where the degrees of freedom are the number of row minus one, multiplied by the number of columns minus one. The
observed value of the statistical test is compared with the expected value, at the given
degrees of freedom, and if the observed value is larger than the expected value, the
test would be considered statistically significant at the given level of significance.

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### TABLE 8-2 PROBLEM VARIABLES

(percentage)

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<td>MONSTERRAT</td>
<td>24.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST. KITTS &amp; NEVIS</td>
<td>25.00</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>119.00</td>
<td>0.16</td>
<td>0.05</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>ST. VINCENT &amp; GRENADINES</td>
<td>63.00</td>
<td></td>
<td>0.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRINIDAD &amp; TOBAGO</td>
<td>65.00</td>
<td>0.09</td>
<td></td>
<td>0.17</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 8: Empirical Analyses of Economic Development Problems

Crime and security issues and local hostility are island-specific, where crime stems from high unemployment and apathy on one hand, and the drug trade on the other. Hostility could probably be the result of many years of poorer citizens being economically marginalised, coupled with high population rates and low education within ghettoised enclaves. Inflation is defined by high prices of the holidays including prices at the destination, is island specific. Infrastructure problems are a major concern relating to most of the Eastern Caribbean islands. Hotel facility and service was mostly mentioned of those islands that are newly developing the tourism product. Poverty is specific to islands, that have either lower GDP per capita, high populations, or have long since had economic problems, whereby economic underdevelopment is a pressing issue. So far as tourism development has benefitted the islands, it has seemingly served only to enrich the elites (Farrell 1983), in some cases, and categorically in all cases, to obtain foreign exchanges to pay for imports. It has done little to alleviate poverty in some islands, and as Williams and Shaw (1991) noted, a closer view must be taken at the types of jobs that the tourism industry has created. These discussions of lower level jobs can be made of most service jobs, with the exception of 'professional' services. Nevertheless, without services, in general, and tourism in particular, the Caribbean would suffer from economic underdevelopment.

8.6 CRIME AND SECURITY ISSUES

Crime and Security issues are islands specific, but these issues as by-products of development should be well noted. It seems to follow that where there is an increase in economic development, socio-economic problems also follow. The Caribbean is no exception, not surprisingly, the more developed economies as defined by Gross Domestic Product (GDP), have been experiencing the most crime. Crime that is both petty, and highly organised. Martinique (11.8%), Trinidad and Tobago (9.2%), and
Curaçao (6.9%) were mentioned to have some problems with crime and security issues.

Trinidad is in a unique position in the Caribbean, to forgo the route of tourism as an economic activity to foster development. Nonetheless, although Trinidad is not a traditional tourism destination, as its economic occupation is industrial due to its natural endowments of oil and gas, some aspects of tourism (business) development are apparent. Tobago's economic base however, is mostly tourism, but crime is not a factor. Trinidad has potential as a heritage and eco-tourism destination, and is currently attempting to develop its tourism product (Williams, 1993). But, with its concentration on industrialisation, and high crime rates, it is unlikely that international tourism will ever become an integral part of the Trinidadian economy. Crime in Trinidad, as in Jamaica, is predatory in nature, reaching North American cities proportions. The literature suggests that criminal behaviour is rational, since crime is thought to increase, ceteris paribus, when gains from this activity increases (Becker 1968, Ehrlich 1973, Mcpheters 1974). This is of course, the simplest answer to the problem, as poverty and limited opportunities for advancement must also be considered. Crime that is organised in these countries could become a potential threat to the region's industries, especially industries such as tourism, which would be negatively affected by crime. Crime that are related to drug trafficking and money laundering could 'trickle down' to all aspects of the societies, and damage the tourism products. Jamaica seems to have, as mentioned by 37.4% of the visitors to have the most incidence of crime. There is a dependent relationship between the level crime and security issues, and the level of enjoyment in Jamaica (see Table 8-3). The relationship is a negative one, because as crime increases, based on the statistics, the level of enjoyment is likely to decrease. There is linearity between crime and security issues in Jamaica and the level of enjoyment, as can be inferred from Pearson's R-square value of 0.34 (see Table 3-4). The degree of association between crime and enjoyment at the destination is somewhat positive, based on Spearman correlation
value of 0.34 (see Table 3-5). Crime and security issues, based on the empirical evidence, negatively affect the level of enjoyment of visitors to the destination (see Table 3-6). Hence, if tourism is to remain viable in Jamaica, policy must be enacted and implemented to redress social problems that give rise to crime.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>CRIME AND SECURITY ISSUES</th>
<th>PERCENTAGE</th>
<th>PEARSON DEGREES OF freedom</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMAICA</td>
<td></td>
<td>37.4%</td>
<td>0.18697</td>
<td>5</td>
</tr>
<tr>
<td>BARBADOS</td>
<td></td>
<td>15.7%</td>
<td>0.115945</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>CRIME AND SECURITY ISSUES</th>
<th>R SQUARED</th>
<th>DEGREES OF freedom</th>
<th>T-VALUE</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMAICA</td>
<td></td>
<td>0.33985</td>
<td>4</td>
<td>3.55898</td>
<td>0.00058</td>
</tr>
<tr>
<td>BARBADOS</td>
<td></td>
<td>0.15992</td>
<td>4</td>
<td>2.14921</td>
<td>0.03298</td>
</tr>
</tbody>
</table>
### TABLE 8-5
CRIME AND SECURITY ISSUES AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>SPEARMAN CORRELATION</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMAICA</td>
<td>0.33696</td>
<td>3.52476</td>
<td>4</td>
<td>0.00065</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>0.13795</td>
<td>1.8568</td>
<td>4</td>
<td>0.06631</td>
</tr>
</tbody>
</table>

### TABLE 8-6
CRIME AND SECURITY ISSUES AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>KENDALL'S TAU-b</th>
<th>GAMMA</th>
<th>SOMERS' D</th>
<th>T-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMAICA</td>
<td>0.30746</td>
<td>0.48512</td>
<td>0.30009</td>
<td>3.4965</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>0.12983</td>
<td>0.29122</td>
<td>0.119979</td>
<td>1.6312</td>
</tr>
</tbody>
</table>
Barbados has some problems with crime and security issues, as pointed out by 15.7% of the interviewees (see Table 8-3). The degree of dependence is significant at 2.1%, with Pearson chi-square value of 11.6, at 4 degrees of freedom (see Tables 8-4 to 8-6). The empirical evidence points to a marginally linear association (16%), between crime, security and hostility issues and the level of enjoyment in Barbados. The inference is that, the level of enjoyment in Barbados would diminish, to the extent that crime and security issues become problems at the destination. These problems should be addressed immediately. The root causes could be relatively high levels of unemployment, and the widening gap between the ‘rich’ and ‘poor’. Containment of the figures seems to be the short-term solution, but other measures must be considered to reduce crime in the long term. In the short term, increases in crime and security issues may not affect the destination adversely, but in the long term this could become a detrimental factor to the island’s sustainable economic development.

The crime figures could be significantly high for Trinidad alone, but as most tourists go to Tobago, the mention of crime by the respondents could be understated. The types of crimes committed in Jamaica and Trinidad and Tobago are inherently different from those in Barbados, Curacao, and Martinique. Jamaica has had a long history of civil unrest and defiance of the status quo. After all, no other island can attest to runaway enslaved people, the Maroons, who marooned in the mountains defying enslavement to the end. It is also the home of urban decay, trench-towns in Kingston, a priori to the days when economists were least concerned with urban neglect. Thus, it is within this framework, which rastafarianism (rastas), the religious cult that worships Hail Salasse as the last in line to the biblical King David during the 1960s, thrived. The era was one of ‘black-empowerment’ galvanised by the civil rights movement of United States (US). Ironically, the trench towns gave birth not only to the rastas, but to reggae music, which has become a tourist attraction (Sunsplash) and a mainstay of western music.
Organised crime gained fertile ground to multiply in the poor districts of Jamaica, where people who have been marginalised for too long, pursue illegal activities as a means of survival. The mountain ranges provide many opportunities to marijuana cultivation and drug-trafficking. One obvious causation of crime could be the proliferation of the drug trade in Jamaica, which could lead to crimes against the person. Aside, its profitability serves to make it more attractive, and the demand in North America and Europe has kept the trade alive. Where drug-trafficking exists, so too has organised crime. Crime against tourists, where one good example is Florida, USA (McPheters and Stronge 1974), will surely damage the tourism industry, in the long term.

Hostility was mentioned within the context of crime and security issues by the respondents, and it was mentioned as a factor in Jamaica, Martinique, and to a lesser extent S. Lucia. The obvious income disparity between guests and host, only aggravates the host's awareness their relative disadvantaged economic position, hence, hostility and violence could ensue (Perez 1973, Willikinson 1987).

8.7 CUISINE, CULTURE AND ENTERTAINMENT PROBLEMS

The Caribbean was noted to have an overall problem of poor cuisine in the hotel establishments. Cuisine here is defined mainly by food preparation, and includes menu choice. All the islands need improvement in this area, without exception. As Martinique's cuisine is compared with France, it was mentioned (4.4% of the respondents) be of a significantly inferior quality. Food and Beverage have long been a mainstay of resort hotels, an integral part of its facility. The islands with less established tourism products, had more evidence of poor cuisine, but those with established tourism developments were also mentioned. Some islands were pointed out to lack local culture and poor entertainment, but these were island specific. Although hotel cuisine and lack of entertainment deficiencies were indicated as most
apparent in Dominica (29.6%), Aruba (8.3%), Cayman (4.5%), and Turks and Caicos (16.7%), the findings were not statistically significant.

Curaçao was pointed out by 17.2% of the visitors to the island to have problems with the cuisine and overall culture (see Table 8-7). There is some positive linearity as indicated by Pearson’s R-square value of 0.40, and t-value based on a normal approximation of 2.25, at an approximate significance of 0.03 (see Table 8-8). The association between the two variables as shown by Spearman correlation, infers a positive value of 0.40, with a t-value of 2.23, at an approximate significance of 0.03 (see Table 8-9). Kendall’s Tau-b value of 0.36 implies association between the two variables, but Gamma value of 0.76 with t-values of 2.30, points to a stronger association. There is some positive symmetry, as indicated by Somer’s d value of 0.33, between the level of enjoyment value of 0.58 and lack of cultural entertainment and poor cuisine value of 0.23, with t-values of 2.30 (see Table 8-10). The statistics suggest that, the level of enjoyment of Curaçao is inversely affected by the quality of cuisine and cultural entertainment. Poor cuisine and cultural entertainment will result in low levels of enjoyment. Overall percentages indicating both cuisine and lack of enough entertainment were significant in Aruba by 8.3% of the interviewees who had visited the destination. The findings however, are statistically insignificant, but the problems remain. Likewise, the Cayman Islands was noted by 4.5% of the visitors to the islands, (statistical support is insignificant), to lack both local flair and obvious local culture. The loss of indigenous culture through a high degree of assimilation, might be some reasons for the lack of cultural entertainment on the islands discussed in the foregone analyses. Cultural display and entertainment should be examined, to derive ways to reinstate or encourage indigenous customs and habits. It is quite possible that, the problem of cuisine appears to stem from inadequate training in international food and beverage preparations. Kakazu (1994) noted that, tourism establishments should meet international standards vis à vis local standards. Apart, the entire region should review its standards, regarding hotel upkeep, facilities
offered, service, and cuisine against international standards. Market research should be carried out to determine customers wants and needs. Physical and human investment are continual processes, and only where this is understood, can good service and hospitality be attained. Hotels are an integral part of tourism development, the major money earner in the industry (Demas 1965). Moreover, hotels are not highly differentiated, and the substitution effect, based on price, could occur. If on one hand, the destination is desirable, then the demand would be subjective, based on the hotel facility and price (Jenkins 1982). But if on the other hand, the island is not the premier motivator, but the hotel experience, then supply will dictate demand.

**TABLE 8-7** POOR CUISINE, CULTURE AND ENTERTAINMENT AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PERCENTAGE</th>
<th>PEARSON DEGREES OF FREEDOM</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURACAO</td>
<td>17.2%</td>
<td>4.65</td>
<td>3</td>
</tr>
</tbody>
</table>

**TABLE 8-8** POOR CUISINE, CULTURE AND ENTERTAINMENT AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>R SQUARED</th>
<th>t-VALUE</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURACAO</td>
<td>0.3979</td>
<td>2.2535</td>
<td>0.03255</td>
</tr>
</tbody>
</table>

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The foregone are a simple explanation under which, hotels in a highly competitive region should maintain international standards, if they intend to remain competitive. Service in general should be continuous through the length of the visit, and better ways for its improvement should be devised by management. Food and Beverage should be addressed through education and training, again with international training standards as its barometer. An in-depth discussion of these points is beyond the scope of this treatise however, as it embodies wide managerial issues that are specific to hotel and destination management. Nonetheless, cuisine, culture and entertainment are an important parts of the tourism product.

8.8 EXPENSIVE

The Caribbean islands that were defined as expensive are Bermuda, Barbados, Martinique, the British Virgin Islands, and Antigua. Some respondents (Western Europe) claimed that because of connecting flights, the Anglophone islands are relatively expensive to visit. Costs are probably high on most islands, due to a deliberate policy to maintain the upmarket image on one hand, and high cost of production on the other. This is one factor due to distance, and flight connections. Expensive is not only as a result of inflationary prices, but relates to prices of the mode of transportation, accommodation, and maintenance at the destinations.

Bermuda was noted to be expensive by 30.3% of the interviewees (see Tables 8-11 to 8-14), but the statistics showed neither linearity nor association between the level of enjoyment at the destination, and costs of goods and services. Bermuda is expensive possibly as a result of the limitation of hotel rooms to control demand (CTO 1990). The high costs of goods and services could be resulting from cost push factors, as there is negligible unemployment, and a high degree of expatriate labour. Wage costs would push prices up for basic goods and services.
Barbados was noted as expensive by 19.7% of the respondents, but the results were not statistically significant (see Table 8-11 to 8-14). The British Virgin Islands and Antigua and Barbuda were also noted to be expensive by 7.7% and 6% respectively, and Martinique was mentioned by 7.4% of the respondents. However, the results are not statistically significant. Unlike Bermuda’s overall policy of a high price destination, Barbados pursues a dual policy, upmarket and mass-market products, which are distinctly different.

TABLE 8-9  POOR CUISINE, CULTURE AND ENTERTAINMENT AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>SPEARMAN CORRELATION</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURACAO</td>
<td>0.39485</td>
<td>2.2331</td>
<td>4</td>
<td>0.03402</td>
</tr>
</tbody>
</table>

TABLE 8-10  POOR CUISINE, CULTURE AND ENTERTAINMENT AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>KENDALL'S TAU-b</th>
<th>GAMMA</th>
<th>SOMERS' TAU-b</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURACAO</td>
<td>36.6%</td>
<td>0.75824</td>
<td>0.33173</td>
<td>2.2983</td>
<td>0.19963</td>
</tr>
</tbody>
</table>

TABLE 8-11  EXPENSIVE AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PERCENTAGE</th>
<th>PEARSON</th>
<th>DEGREES OF FREEDOM</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BERMUDA</td>
<td>30.3%</td>
<td>3.7263</td>
<td>5</td>
<td>0.58946</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>19.7%</td>
<td>7.454</td>
<td>4</td>
<td>0.11280</td>
</tr>
</tbody>
</table>

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TABLE 8-12  
EXPENSIVE AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>R SQUARED</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BERMUDA</td>
<td>0.18432</td>
<td>1.04417</td>
<td>4</td>
<td>0.30448</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>0.12775</td>
<td>1.70875</td>
<td>4</td>
<td>0.08926</td>
</tr>
</tbody>
</table>

TABLE 8-13  
EXPENSIVE AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>SPEARMAN CORRELATION</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BERMUDA</td>
<td>0.17413</td>
<td>0.98457</td>
<td>0.4</td>
<td>0.33246</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>0.10589</td>
<td>1.41269</td>
<td>4</td>
<td>0.15951</td>
</tr>
</tbody>
</table>

TABLE 8-14  
EXPENSIVE AND THE LEVEL OF ENJOYMENT

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>KENDALL'S TAU-b</th>
<th>GAMMA</th>
<th>SOMERS' d</th>
<th>T-VALUE</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BERMUDA</td>
<td>0.15965</td>
<td>0.27907</td>
<td>0.15409</td>
<td>0.9696</td>
<td>0.58946</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>0.09965</td>
<td>0.21207</td>
<td>0.09406</td>
<td>1.30416</td>
<td>0.112</td>
</tr>
</tbody>
</table>

In general, holidays to the Caribbean region are not cheap, although some packages are ‘all inclusive’. Prices are relatively high, as costs of production are high, and local costs of living are high, which is a direct result of high import costs. Standards of living are relatively high on some islands, and especially on those islands that were noted to be expensive. In addition, tourism is the main industry on these islands, and as mass tourism damages the tourism product, it is more economically viable to pursue policies that result in high income spending per tourist. Hence, maintaining an upmarket image through high prices could be a sound policy.
8.9 HOTEL FACILITY AND SERVICE

The facility needed to operate any industry must be appropriate if the industry is to be successful. Likewise, the service rendered by, and in conjunction with the facility must meet well-established international standards (Kakazu 1994). Typically, it appears that the islands that are not established destinations were seen to have problems concerning serviceability. However, service problems have been mentioned for some long established destinations. Lord Rocco Forte, owner of the Forte Crest chain of hotels, in the UK, said in an American Express advertisement in the United Kingdom that, "At the end of the day, what makes one hotel better than the other is the people in it, it doesn't matter what you do at the top...". This is the major factor that distinguishes well-run establishments, whereby employees are service oriented.

TABLE 8-15

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PERCENTAGE</th>
<th>PEARSON DEGREES OF LEVEL OF RESPONSES CHI-SQUARE FREEDOM</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOMINICA</td>
<td>37.0%</td>
<td>13.65882</td>
<td>4</td>
</tr>
<tr>
<td>THE BRITISH VIRGIN ISLANDS</td>
<td>10.3%</td>
<td>6.40714</td>
<td>4</td>
</tr>
</tbody>
</table>

TABLE 8-16

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>R SQUARED</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOMINICA</td>
<td>-0.07546</td>
<td>-0.46653</td>
<td>4</td>
<td>0.6435</td>
</tr>
<tr>
<td>THE BRITISH VIRGIN ISLAND</td>
<td>0.33245</td>
<td>2.1144</td>
<td>4</td>
<td>0.03865</td>
</tr>
</tbody>
</table>
The hotel properties in the Caribbean were not mentioned, in general, to be a problem, but some respondents mentioned that some islands such as, Aruba and S. Martin had edifices that resembled the North American hotel architecture style. This style of hotel is seen as an enigma to the Caribbean landscape, as a pollutant to the environment.

Poor hotel facility and service were pointed out to be paramount in Dominica (37%) of the interviewees. The variables - level of enjoyment on Dominica and poor hotel facility are dependent, as is suggested by Pearson chi-square value is 13.66 at 4 degrees of freedom, with 0.01 confidence (Table 8-15). There appears to be, based on the statistics, a fair degree of linearity and association existing between the two variables. Pearson's R-square value of 0.41, and a t-value based on a normal distribution of 2.27, at 0.03 approximate significance, which points to a fairly negative linear relationship (see Table 8-16). Spearman correlation value is 0.49, with a t-value of 2.83 at 0.01 approximate significance, infers a fairly strong negative correlation between hotel facility/service and the degree of enjoyment (see Table 8-17). The level of association, based on the Kendall's tau-b of 0.45, and Gamma of 0.66, with an overall t-value of 2.91, presupposes a somewhat strong and negative association (see Table 8-18). The statistics clearly show that the level of enjoyment at the destination is directly dependent on the hotel facility and service in Dominica.

Cuba (27.5%), the Dominican Republic (13.8%), Grenada 14.9%, Martinique (8.3%) and Turks and Caicos (11.1%) were mentioned by the respondents to have problems with their hotel facility and service, however the results were not statistically significant. Cuba, Dominica, Grenada and Martinique are islands that are predominantly agricultural based. Economic development is retarded by constraints that are typical of agricultural based economies, but specific, although dissimilar problems exist on these islands. Moreover, the main economic sector that has contributed to the more developed countries, ie. tourism development, is a relatively
undeveloped industry on Dominica and Turks and Caicos islands, and a reintroduction on Cuba. Tourism is a revisited industry in Cuba, since its watershed of 1959, and as a result of the political situation, the lack of international exposure continues to retard the development process.

### Table 8-17: Hotel Facility and Service and the Level of Enjoyment

<table>
<thead>
<tr>
<th>Country</th>
<th>Spearman Correlation</th>
<th>T-Value</th>
<th>Degrees of Freedom</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominica</td>
<td>0.06162</td>
<td>0.30867</td>
<td>4</td>
<td>0.76013</td>
</tr>
<tr>
<td>The British Virgin Islands</td>
<td>0.36204</td>
<td>2.3625</td>
<td>4</td>
<td>0.02352</td>
</tr>
</tbody>
</table>

### Table 8-18: Hotel Facility and Service and the Level of Enjoyment

<table>
<thead>
<tr>
<th>Country</th>
<th>Kendall’s Tau-b</th>
<th>Gamma</th>
<th>Somers’ d</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominica</td>
<td>0.45145</td>
<td>0.65753</td>
<td>0.44037</td>
<td>2.90954</td>
</tr>
<tr>
<td>The British Virgin Islands</td>
<td>0.34306</td>
<td>0.76571</td>
<td>0.28852</td>
<td>2.11588</td>
</tr>
</tbody>
</table>
Tourism is mainly regional tourism (CTO 1993), with a small interest in diving, and eco-tourism on Dominica (Weaver 1988). Moreover, most of the hotels are locally owned in Dominica and Grenada, and perhaps standards have been set at the domestic, rather than the international level. Moreover, Grenada, as had Dominica, have made recent attempts at economic development via tourism development, therefore diversifying away from the primary sector. Many of its hotels are locally owned, thus the problem of standards could stem from lack of awareness and hotel education.

The Dominican Republic has the most hotel rooms in the Caribbean, with plans to increase its rooms to 25,000 (An FT 1993). The hotel facility and level of service are real problems in the Dominican Republic, affecting the level of enjoyment to some degree. The Dominican Republic needs to reevaluate its arrival driven policy, for one based on the maximisation of tourist per capita spending (and profit), and satisfaction, where the likelihood of repeat visits can be increased.

The British Virgin Islands (BVI) were seen by 10.3\% of the visitors to the destination to have problems with its hotel facility and service (see Table 8-15). The statistical findings suggest that, there is a fairly strong indication that if visitors found problems with the hotel facility and service on the BVI, then it would adversely affect their level of enjoyment.

The islands discussed concerning poor hotel facility and service should address the problem, but the limitation to solution remains, where limited resources exist. Hence, the lack of awareness that the problem may exist, and resources to rectify the situation may not be within the capacity of the industry. The problems, if left unsolved, would retard further development of the industry. The ability to meet international hotel standards is a notable difference, between the destinations at the various stages of the tourism life cycle (McElroy and de Albuquerque 1992). Nonetheless, improvement
in efficiency in the hotel sector is the ultimate challenge of emerging tourism economies, so reliant on this sector for economic well-being.

8.10 INFRASTRUCTURE

Infrastructure problems were cited as an overall problem with the Caribbean *sui generis*, but the problem is stated more often for a few islands. Antigua and Barbuda (26.9%), Cuba (32.5%), Dominica (37%), S. Lucia (16%), St. Kitts and Nevis (8%), and the British Virgin Islands (5.1%) were noted to have significant infrastructure problems (see Tables 8-19 to 8-22). The literature stresses the need for good infrastructure to facilitate any industry, since it is an indicator of a country’s economic development (Matheison and Wall 1992). In this treatise, infrastructure refers to good signage, roadways, airport and seaport facilities, and mainly, these are the factors that are needed to facilitate the tourism industry, which should be provided for by the government.

### Table 8-19

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INFRASTRUCTURE AND THE LEVEL OF ENJOYMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PERCENTAGE RESPONSES</td>
</tr>
<tr>
<td>ST. KITTS AND NEVIS</td>
<td>8.0%</td>
</tr>
<tr>
<td>THE BRITISH VIRGIN ISLANDS</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

### Table 8-20

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INFRASTRUCTURE AND THE LEVEL OF ENJOYMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R SQUARED</td>
</tr>
<tr>
<td>ST. KITTS AND NEVIS</td>
<td>0.60886</td>
</tr>
<tr>
<td>THE BRITISH VIRGIN ISLANDS</td>
<td>0.37018</td>
</tr>
</tbody>
</table>
Although, Cuba, Dominica, Antigua and Barbuda, and S. Lucia had fairly high percentages of persons that noted infrastructure to be a problem, the results were not statistically significant, at 5% confidence levels. The interviewees also noted that, S. Vincent and the Grenadines (7.9%) had problems with the infrastructure, including Grenada 7.5%, Barbados (6.2%), but the results were not statistically significant.

S. Kitts and Nevis were mentioned by 8% of the interviewees to have problems with the infrastructure. The observed chi-square value of 15.94 at 2 degrees of freedom, and 0.001 implies that the null hypothesis must be rejected that there is independence (see Table 8-19). The variables, level of enjoyment and infrastructure problem is dependent. The value of pearson’s R-square is 0.61, and the t-value, based on a normal approximation, is 3.68, at 0.001 approximate significant (see Table 8-20), which suggests a linear relationship. The problem possibly lies with maintenance and upkeep, resulting in ‘potholes’ or poor roadways in general. Infrastructure is also defined as airport facility, and since it is the first port of entry for many visitors to the region, where an inefficient airport could cause delays and chaos, it should be efficient. Antigua and Barbuda are case in point, with a long established tourism product, and a projected increase in demand, a new airport had to be built during the 1980s. As demand has outstripped the facilities supplied, an excessively busy, inadequate, international airport ensued. Additionally, there is an abysmally poor maintained road system with almost no directions. The airport is currently undergoing expansion, and the facility is much improved from the confused baggage claim area of a few years ago.

Moreover, some major roads have since been repaved, but road signs are still nonexistent. The fact remains that Antigua has a well-developed tourism product, and included, a thriving rent-a-car business, with the major companies represented, such as Hertz, National and Avis. In addition, the facilities, such as restaurants and entertainment spots, are scattered around the island, who have tried to place some
unclear directions to their establishment. The infrastructure shortcomings, although statistically insignificant, are clearly an indication that Antigua must address this issue. Countries with tourism based economies must develop and maintain adequate systems, with proper international signage and signals. The Caribbean as a recipient of funds under the Lomé Convention mentioned, has been undergoing construction of new, and the improvement of, existing roads. Antigua and Barbuda may not have optimised the use of these funds (Sutton 1992), as more can be done to repair the infrastructure. Nonetheless, highways and roadways are indicators of a country’s level of economic development (Hagen 1980, Thirwall 1992).

### Table 8-21

<table>
<thead>
<tr>
<th>Country</th>
<th>Spearman Correlation</th>
<th>T-Value</th>
<th>Degrees of Freedom</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST. KITTS AND NEVIS</td>
<td>0.50572</td>
<td>2.81137</td>
<td>2</td>
<td>0.01303</td>
</tr>
<tr>
<td>THE BRITISH VIRGIN ISLANDS</td>
<td>0.35085</td>
<td>2.279</td>
<td>4</td>
<td>0.02853</td>
</tr>
</tbody>
</table>

### Table 8-22

<table>
<thead>
<tr>
<th>Country</th>
<th>Kendall's Tau-b</th>
<th>Gamma</th>
<th>Somers' d</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST. KITTS AND NEVIS</td>
<td>0.46625</td>
<td>1</td>
<td>0.39286</td>
<td>1.6107</td>
</tr>
<tr>
<td>THE BRITISH VIRGIN ISLANDS</td>
<td>0.33245</td>
<td>0.93939</td>
<td>0.22794</td>
<td>1.52185</td>
</tr>
</tbody>
</table>
Chapter 8: Empirical Analyses of Economic Development Problems

8.11 POVERTY

Poverty was noted to be the most overwhelming problem that undermines the economic development of the Dominican Republic, Cuba, and Dominica. This is largely due to economies based on agriculture, whereby economies based on agriculture typically lag behind those based on manufacturing and services. Poverty can be judged by low per capita income, high unemployment, and pari passu overall low standards of living.

Thirty-five percent of the responses noted that Poverty was a problem in Cuba (see Tables 8-23 to 8-26). The observed Pearson chi-square value of 9.86, at 4 degrees of freedom and 0.04 significance, is evidence to accept the null hypothesis of independence. The variables, poverty and level of enjoyment are independent of each other. Although poverty is an issue in Cuba, it is not, based on these statistical findings, a predictive factor of the level of enjoyment.

Poverty was mentioned by 29.3% of the interviewees to be a problem in the Dominican Republic (see Table 8-23). The Pearson chi-square value of 10.93, at 4 degrees of freedom, with 0.027 significance, points however, to an independent relationship. Poverty is a major issue in the Dominican Republic, but it does not statistically have any association, based on the findings, to the level of enjoyment (see Tables 8-24 to 8-26).

Poverty is also an issue in Dominica, as mentioned by 19% of the respondents. The variables are independent, as was the case of Cuba and the Dominican Republic, since Pearson chi-square value at 4 degrees of freedom, and 0.052 significance, is 9.39. Dominica has poverty problems, but the enjoyment levels has no associated to poverty.
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## Table 8-23

**Poverty and the Level of Enjoyment**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage Responses</th>
<th>Pearson Chi-square</th>
<th>Degrees of Freedom</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>35.0%</td>
<td>9.85396</td>
<td>4</td>
<td>0.04296</td>
</tr>
<tr>
<td>Dominica</td>
<td>19.0%</td>
<td>9.8824</td>
<td>4</td>
<td>0.04246</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>29.3%</td>
<td>10.9292</td>
<td>4</td>
<td>0.02737</td>
</tr>
</tbody>
</table>

## Table 8-24

**Poverty and the Level of Enjoyment**

<table>
<thead>
<tr>
<th>Country</th>
<th>R Squared</th>
<th>T-Value</th>
<th>Degrees of Freedom</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>0.29735</td>
<td>1.9198</td>
<td>4</td>
<td>0.0624</td>
</tr>
<tr>
<td>Dominica</td>
<td>0.25169</td>
<td>1.13359</td>
<td>4</td>
<td>0.271</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>-0.03048</td>
<td>-0.2274</td>
<td>4</td>
<td>0.0541</td>
</tr>
</tbody>
</table>

## Table 8-25

**Poverty and the Level of Enjoyment**

<table>
<thead>
<tr>
<th>Country</th>
<th>Spearman Correlation</th>
<th>T-Value</th>
<th>Degrees of Freedom</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>0.30687</td>
<td>1.98757</td>
<td>4</td>
<td>0.0541</td>
</tr>
<tr>
<td>Dominica</td>
<td>0.33667</td>
<td>1.55849f</td>
<td>4</td>
<td>13562</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>0.02449</td>
<td>0.18333</td>
<td>4</td>
<td>0.8552</td>
</tr>
</tbody>
</table>
Poverty in Cuba is endemic, and is an indicator of the living standards of the populous. In addition, as are Dominica, the Dominican Republic, Cuba is agriculture base, with very little services, due in part to its lack of international participation. Foreign investment remains minimal, largely as a result of its minimum international participation, resulting from its political system. The incentive to make profit had been eradicated, and without the long standing support of the former Soviet Union, some hardships have become evident. Tourism is tolerated because of its ability to provide foreign exchange, so needed to purchase necessities, such as oil.

The Cuban economy employed about 26% of the total work force in agriculture, and is largely dependent on sugar, tobacco, and coffee. Economies based solely on agriculture are largely poorer than those that have diversified into other industrial sectors (Thirwall 1992). The population is the highest in the region at 10.5 million, with 35% under 15 years old, and a significantly large portion of the population between 15 years and 25 years old, although literacy stands at 100% (FT 1993). Additionally, large amounts of funds are spent on education and health care, as are typical of the development policies pursued by socialist governments. Education is compulsory for children between the ages of six to 14 years, and it is free, and there are four universities. Day nurseries are also provided, and there are 255 hospitals and clinics, including 24 blood banks. Moreover, life expectancy was 73.9 years, in 1992 (The World Bank 1994), hence one can conclude that Cuba’s poverty may be relative. If poverty is defined by the inability of a country’s citizens to have their basic needs met, by calorie intake, education, adequate healthcare, and unemployment assistance, then Cuba is therefore not poor. However, if poverty is judged, as interviewees might have indeed done, by material possessions, basic rights and freedom, including the freedom to be affluent, then Cuba is poor.

Overall, the political system, which has withstood an American embargo since 1959, is seem as the major deterrent to the islands’ potential as a diversified economy.
Foreign investment is needed to aid in that process. Tourism development would benefit greatly from investment injections; and because of its size, agriculture and manufacturing could be organised to form intersectoral linkages. The income multiplier could be high in Cuba, if these mechanisms were in place, and tourism expenditure could be a catalyst for economic development, through a strong economic impact. The Dominican Republic has problems with poverty, due in part to a large population. It is the second most populous, with seven million people, and the lowest literacy rates in the region. In 1985, the life expectancy rate was only 64.1 years old, compared with about 75 years for the Anglophone Caribbean. Education for children is compulsory for ages seven to 14 years, but rural primary and secondary enrolments are low. In 1991, a $15 million World Bank loan was procured to combat this problem, and in 1992, 30% of the population were unemployed, which could give rise to poverty. Tourism is seen by the government as the most important sector, and as it is labour-intensive, it has absorbed some of the excess labour. Population control and basic education are fundamental factors of any country’s economic process.

Dominica suffers from poverty problems, largely because the economy has not diversified fully away from agriculture, and the other economic sectors are weak. Additionally, unemployment was high at 11%, in 1992, and the overall standard of living is below regional standards (The World Bank 1994). The island has the most rugged interior in the region, with many peaks and valleys, as a result, logistical problems remain a major deterrent to large scale tourism development. Presently, tourism development is being pursued with eco-tourism as its main sector, which could become a problem to the environment. Eco-tourism cannot be used as a successful development option, as mass tourism would be needed to effect that objective. Mass tourism would undoubtedly destroy Dominica’s rain-forest, in the longterm. Hence, the island must reserve eco-tourism as an option of tourism development, instead relying on some other form of ‘resort’ development, as S. Lucia has done. Eco-tourism is not sustainable, the destruction of the vegetation will ruin
the ecological system, and the sector. In addition, eco-tourism is one aspect of adventure tourism that is a very specific market segment (Munt 1992), where it functions best within a diversified economy.

8.12 VENDOR HASSLING

Following the northern demand for drugs, and the original demand of mass-market tourism in some parts of the region - sun, sea and sex. Vendor hassling, not for the selling of legal goods and services, but for drugs and prostitution has become a problem on some islands. These are the negative social consequences of tourism (Mathieson and Wall 1995, Weaver 1988, 1993a, Farrell 1982). This problem is apparent in areas where low economic development exists, on one hand, and, fast paced tourism development, on the other. However, the issue of low levels of economic development, and poverty, which would give rise to vendor hassling, specifically in reference to Jamaica, may not be easily explained by these factors. Gross inequality of wealth must be considered, since in 1991, Jamaica’s GDP was US$1.48 billion, and with a population of 2.4 million, per capita income was approximately US$603.43. Problems of vendor hassling on Barbados became an inflammatory issue, which has since given rise to legislative policy.

Vendor hassling in Jamaica was mentioned by 28.3% of the interviewees (see Table 8-27). The response rate of very enjoyable and vendor hassling was 14.3%, 21.4% for enjoyable, 10.7% somewhat enjoyable, 28.6% enjoyable with reservations, and 25% least enjoyable. The relationship is a discordant one, implying a negative association between the level of enjoyment and vendor hassling. This indication is reinforced by the degree of dependence, as Pearson chi-square value is 23.86, at 5 degrees of freedom, and a significance of 0.002. The observed chi-square value points to a dependent relationship between the two variables, thus with about 99% confidence, the degree of vendor hassling affects the level of enjoyment. The degree
of linearity is fairly positive, as inferred by Pearson's R-square value of 0.46 (see Table 8-28), and there is a fairly positive association between the two variables (see Tables 8-29 and 8-30), which suggests that the problems of vendor hassling negatively affect the level of enjoyment on Jamaica.

### Table 8-26: Poverty and the Level of Enjoyment

<table>
<thead>
<tr>
<th>Country</th>
<th>Kendall's Tau-b</th>
<th>Gamma</th>
<th>Somers' T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>0.27824</td>
<td>0.43813</td>
<td>0.18909</td>
</tr>
<tr>
<td>Dominica</td>
<td>0.3097</td>
<td>0.57143</td>
<td>0.2844</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>0.02214</td>
<td>0.03811</td>
<td>0.02113</td>
</tr>
</tbody>
</table>

### Table 8-27: Vendor Hassling and the Level of Enjoyment

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage Responses</th>
<th>Pearson Chi-Square</th>
<th>Degrees of Freedom</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica</td>
<td>28.3%</td>
<td>23.86</td>
<td>5</td>
<td>0.0023</td>
</tr>
<tr>
<td>Barbados</td>
<td>9.0%</td>
<td>25.41766</td>
<td>4</td>
<td>0.00004</td>
</tr>
<tr>
<td>St. Lucia</td>
<td>7.6%</td>
<td>20.26008</td>
<td>6</td>
<td>0.00249</td>
</tr>
</tbody>
</table>

### Table 8-28: Vendor Hassling and the Level of Enjoyment

<table>
<thead>
<tr>
<th>Country</th>
<th>R Squared</th>
<th>T-Value</th>
<th>Degrees of Freedom</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica</td>
<td>0.46306</td>
<td>5.14557</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Barbados</td>
<td>0.26581</td>
<td>3.65798</td>
<td>4</td>
<td>0.0003</td>
</tr>
<tr>
<td>St. Lucia</td>
<td>0.26489</td>
<td>2.97131</td>
<td>6</td>
<td>0.0036</td>
</tr>
</tbody>
</table>
Crime and vendor hassling have become problems of enormous proportions on Jamaica, coupled with overt hostility, by-products of poverty and neglect. The birth to the all-inclusive hotel concept was a direct response to these problems. A concept, not as Poon (1988) has described as a form of innovation, but one that was born out of desperation, a direct attempt at protecting the industry. Enclave tourism, as all-inclusive represents, probably serves only to further aggravate resentment and hostility, as vendor hassling has intensified, and has become concentrated around the enclaves. One tour operator in the Netherlands indicated that, he would not sell Jamaica as he does not wish to be held responsible in the high likelihood of crimes being committed against his clients.
Barbados was mentioned to have vendor hassling problems by 9% of the interviewees (see Table 8-27). The Pearson chi-square value of 25.42 implies a dependent relationship between the two variables, within 0.00004 significance, at 4 degrees of freedom. Thus, the level of enjoyment is dependent on the level of vendor hassling. Pearson’s R-square value of 0.27, implies some, although weak linearity between the two variables (see Table 8-28), and Spearman correlation value of 0.25 implies some degree of association (see Table 8-29), (including the association levels of Kendall tau-b value of 0.23, and Gamma value of 0.59), between the level of enjoyment on Barbados and vendor hassling (see Table 8-30). The degree of the association, when one variable is held dependent, and the other independent is weak, as is indicated by Somer’s d value of 0.19, at the t-value of 2.66. The empirical evidence suggests that there is only a small degree of negative association, between vendor hassling and the level of enjoyment on Barbados. If the problem persists, the level of enjoyment will be adversely affected, and could damage Barbados’ tourism product. Thus the problem must be rectified if the industry is to be sustained, but the informal sector should be included in the tourism superstructure.

St. Lucia was shown by 7.6% to have a problem with vendor hassling, the observed Pearson chi-square value of 20.26 at 6 degrees of freedom and 0.003 significance, points to a dependent relationship between the level of enjoyment and vendor hassling (see Table 8-27). The observed value of Pearson R square is 0.26, with t-values of 2.97, at 0.004 significance, which shows some linearity between the (see Table 8-28). There are some associations as is indicated by Spearman Correlation observed value of 0.26 and t-values of 2.92 (see Table 8-29), at 0.004, and Kendall’s Tau-b (0.24), and Gamma (0.66). When one variable is held dependent and the other independent, the observed value of Somers’ d is 0.18 (see Table 8-30). The empirical evidence suggests that there is a dependent relationship between the level of enjoyment and vendor hassling in S. Lucia.
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Curacao (10.3%), Aruba with (8.3%), and Martinique with (7.4%), were mentioned to have vendor hassling problems, but the statistics are too marginal to be empirical. Although at present the percentages are statistically insignificant, there are in all cases, some semblance of dependency and association, between the two variables. Apart from Aruba, the other islands mentioned have some crime problems. Crime and vendor hassling may have similar causal factors: poor education, under and unemployment, and inadequate provision for informal sectors in the development planning. Conversely, the Cayman Islands do not have a problem with vendor hassling, as solicitation is against the law. Moreover, the Caymans, as Bermuda, have surplus labour, thus vendor selling as a livelihood would not be a desirous option. Barbados is in the process of deciding whether to outlaw beach vendors, but it might not erase the problem however, as the real issues that result in aggressive selling and hassling must be analyzed.

Vendors, for the most part, form part of the informal tourism supply in the Caribbean. The products that are sold are occasionally cultural displays, a cottage industry of sorts, where works of art, colourful tropical inspired clothing, jewellery and accessories are peddled. It would be a travesty to allow such talent die, one that Holder (1989) said has not been encouraged, due to poor planning facilities. The vendors should be accommodated, by provision of a venue, whereby their wares could be sold. The venue would then be advertised by the National Tourist Office (NTO), and the national magazine.

Ironically, perhaps it is the lack of 'indigenous' artifacts on the Caymans that has sparked the criticism of 'lack of local flair', by 4.4% of the interviewees. Indigenous art should be available for sale, especially as it generates local revenue, and has potential in enhancing the income multiplier. Wherever unemployment exists, people will resort to alternate means to survive, which is a basic human instinct, hence job creation should be part of government policy.
Chapter 8: Empirical Analyses of Economic Development Problems

In St. Lucia, tourism development is a relatively new industrial sector, with its aims at spurring economic development. The problems are sobering. S. Lucia seemingly lacks the development framework, which is capable of dealing with the speed and size of tourism development. Tourism development is seen as a means whereby economic development can be attained, hence the industry has become more important than agriculture. The island also has a relatively high birthrate, with a large number of the population between 15 and 30 years old, and an economy that can not provide enough employment for its youths (Hudson 1989, McElroy and de Albuquerque 1990). Policies should be devised to curb vendor hassling, as it could lead to guest host conflict, which would be detrimental to the industry. Moreover, increases in education and empowerment of women should assist in alleviating high birth rates.

Martinique’s GDP encapsulates as much as 70% from social transfers, which are obtained from the Metropolis (Paris). The public sector is the major employee, and as Martinique is a ‘département or région’ of France, the young tend to emigrate to the metropolis. Martinique and Guadeloupe suffer from demoralisation due to an economy based largely on agriculture, where relative poverty is deflected by high provisions of social services. It is within this scenario that 7.4% of the respondents noted hostility - racism on these islands. Racism probably stems from what one French industry professional describes as, a large degree of alienation and being unable to forge one’s own destiny. Presently, there are many political parties on both islands, some with independence in mind. Nevertheless, these islands seem only in desperate need of gaining more autonomy over their local economies, but to continue to be recipients of social transfers from France (Hintjens 1991). Bermuda and the British Virgin Islands are two of few remaining British colonies in the Caribbean, with complete local autonomy, and hostility was not mentioned. In fact, the opposite has been said of Bermuda, as it is indication to be one island with the friendliest people. The difference between the British and French colonies is apparent by the
level of local autonomy that exist. The French islands are governed by employing socialist policies with very little local autonomy, and high centralised governments.
8.12 CONCLUSION

The problems that were discussed, were crime and security issues and hostility, expense, hotel facility and service, infrastructure, poverty and vendor hassling, are development issues. However, they must be viewed separately. Some discussions in the earlier half of the chapter, such as, foreign capital, dependency, and the weaken income multiplier have attributed to the problems. Workable solutions that could address these problems should be undertaken methodically by Caribbean governments, where the causes are first corrected.

Development economists and policy makers should work in tandem, to pursue policies that could challenge these issues. The following chapter discusses some policy instruments, which the countries could attempt to implement, based on causality. The knowledge of the causes of the problems that deter sustainable economic progress in the region, may aid in reduction of some of the empirical problems. The definition of the problem, followed by causality, are the first steps to correction of problems, where viable solutions may be devised.
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Chapter 9: Analysis of Structural Problems

9 ANALYSIS OF STRUCTURAL PROBLEMS

9.1 THE RESEARCH VARIABLES

The previous chapter discussed economic development using information from the secondary data collection, and discussed in details the findings from the primary data collection. The statistical results of each question were analysed in order to answer the research question. However, the following discussions will reiterate some of the findings, and will highlight the results of regression analyses, whereby some explanations of the findings can be ascertained. Here primary and secondary data are married to form a thorough understanding of the problems and possible causations, which answer the research question of Caribbean economic development.

The variables that were identified by the respondents stem from economic, (both macro and micro-economics), socioeconomic, environmental, and political to management issues. One issue that could pertain to some of the problems, could be the performance of the tourism industry, as is evident from the income multiplier, due to poor intersectoral linkages. The tourism income multiplier was estimated to be from 0.52 to 1.2 for the Caribbean islands, with an average of about 0.88 for the region (Bryden 1973, Archer 1977). Although this figure is dated, it gives one some indication of the industry’s performance in reference to the economies. Moreover, Fletcher (1994) reported selected multipliers ranging from 0.65 to 1.23. Although time has passed since Bryden first reported the multiplier for the Caribbean, intersectoral linkages may not have improved significantly given the limitation of ‘smallness’, hence the multiplier would presently be about the same. As the main economic sector of the Caribbean, the tourism industry should be fully exploited to contribute towards maximum output to the local economies.
The economies due to their near total openness, are disadvantaged with respect to bargaining position of MNCs (Hudson 1989). Nonetheless, leadership needs to encompass long-term economic planning, strategy, and preparedness, and should include societal issues. The sustainability of any economic organization should be maintained by incorporating some basic management strategies, otherwise, problems that might be easily solved could become insurmountable. There are lessons to be learned, as exemplified by islands such as Jamaica that have had, based on the empirical evidence, socioeconomic problems. These problems (crime, security and hostility issues, and vendor hassling) could directly affect the viability of Jamaica's tourist industry, as the level of enjoyment at the destinations were adversely affected. Longterm persistence of these problems could result in downturn in arrivals.

The following is neither conclusive, nor are the solutions to the problems concerning the Caribbean and tourism development comprehensive. The discussions serve only to identify some possible weaknesses that may exists in the socioeconomic structure, whereby some recommendations that could attempt to address these issues, are outlined. The variables that will be discussed, as analyzed in the previous chapter are crime and security and hostility, hotel facility and service, infrastructure, and poverty. Some probable causative general variables could be insufficient levels of government and investment spending, job creation, and education. There might also be a general lack of clear economic and social policies.

The problem concerning infrastructure was one major issue, especially concerning the Eastern Caribbean. Although, empirical evidence was weak, most islands have some deficiencies in this area. Infrastructure is defined mostly as roadways, but signals and airport facilities are also included. Adequate infrastructure, including good communication networks, are integral to any economic sector, and is especially one key element of
tourism development (Bryden 1973, Matheison and Wall 1995, and Sinclair 1992). Moreover, good infrastructure is a sign of a country's level of economic development, which one could argue enhances its marketability. Poor infrastructure could be a deterrent to local travel, as it increases the time spent in transit, which could add to stress-levels, the very factors that most visitors are escaping. As expressed by Gérard Gémin of the Jamaican Tourism Office in Paris, successful tourism development should contribute to the improvement of basic amenities of the country.

The region has to readdress its provision of hotel facility and service. It is an essential component of any tourism product, and usually bears the highest costs, commonly more expensive and important than the air-carrier. Tourists spend most of their time at their hotels, and as flight duration ranges between eight to 10 hours only, compared with room nights which average 10 nights (CTO 1990), the property, facilities, amenities, and service are critical. Both infrastructure and hotel facilities can be improved, with sound management, ingenuity, planning, and policy. Service also can be improved through investment in employee education and training. Unfortunately, it is not as easy to circumvent crime, insecurities, and hostility.

Crime, security issues, and hostility are highly correlated to dire poverty, unemployment, lack of education, underemployment, and low per capita incomes. The increasing disparity between the rich and the poor among Caribbean nationals, as well as the tourists, serve to agitate hostility among the underclasses (Perez 1973). In addition, as societies progress towards modernization, the incidence of crime increases as national income rise. Capitalism has a built in mechanism that enables the more prosperous, to increase their wealth through the profit motive (Smith 1776). Unless social policies are introduced, the underprivileged increasingly become economically marginalised and disenfranchised. Bermuda has a high standard of living, and hostility towards tourists is mostly nonexistence. There are many reasons for this lack of hostility, inter alia, a population
that is educated, has negligible unemployment, relatively low birth rates, and an overall understanding of the benefits of the tourism sector (McElroy and de Albuquerque 1990b). Additionally, Bermuda has good economic and tourism policies resulting from a government that views the economy in the longterm. In contrast, the empirical evidence suggests that Jamaica, Barbados, and Martinique have obvious problems with crime, and hostility. Curaçao and Trinidad and Tobago also have problems with crime and security issues.

Jamaica’s problems have been highly publicized, fuelled by disapproving foreign policies during the 1970s, and fiscal and monetary difficulties. The ghetorisation of the masses in the urban center is probably the main reason for the profligation of crime. It is true that urban decay in Kingston can be viewed analogously, to the quandary of many of the developed world’s city centers. However, the inertia or inability of the government to rectify the root problems of crime could contribute to a decline in tourism. Barbados’ problems are not as acute, and steps are being taken in containment, especially concerning vendor hassling. Martinique’s problems could be largely political, but it is difficult to judge without a full examination of the economy and the social situation. Political analysis of Martinique however, is beyond the scope of this treatise. Curaçao and Trinidad and Tobago are victims of the modernization thesis, where development seems to precede criminal behaviour, particular where high unemployment persists.

Poverty and low levels of economic growth are the underlying issues that might have resulted in crime, hostility and vendor hassling. The inability of economies to produce sufficient income, due to low levels of industrial activities and an expanding work force, renders an economy incapable of producing viable jobs to meet that expansion. Low national incomes (Y) and high populations produce low per capita incomes and high levels of unemployment. As national income is only a measurement of activity, it is insufficient
alone to explain high unemployment, specifically if gross unequal opportunity is apparent. Keynesian teaching advocates the redistribution of wealth, thus creating opportunity, from the wealthier to the poorer members of society, which would increase the propensity to consume. Increase in consumption would, ceteris paribus, increase GDP and per capita incomes.

Macroeconomics instruments can be utilized, such as fair progressive tax systems, and tenable restriction programs, for societies that are economically marginalised. Where countries are small and rigid, these policy measures are usually more difficult to implement. A politician’s challenge nonetheless, remains where measures such as the foregone are instituted, and he or she remains electable (Goldsmith 1994). In 1991, Cuba and the Dominican Republic had the lowest percentage of government spending to GSP and GDP, six percent and three percent respectively. Government spending in Dominica for the same year was 25 percent of GDP, which can be favorably compared with the region’s average (18%). Although, it could not be proven by use of regression analyses that lack of government spending is a causation of poverty, Keynesian theory advocates that, redistribution of wealth can only come via government involvement.

Windward islands like Dominica, Grenada, St. Lucia and St. Vincent nonetheless, have low economic activity and limited industry. Small tertiary (tourism) sectors, and generally, lower levels of production exist. High unemployment and low per capita incomes persist, which result in large portions of its citizens becoming deprived. Yet, only Dominica was noted to be poor, and it can be said that, its poverty is apparent in relation to the Anglophone region. Poverty in Dominica is in no way comparable with that of the Dominican Republic and Cuba. In general, higher government involvement, to eradicate poverty and provide basic needs have been a priority of the Caribbean islands (The World Bank 1994).
Undoubtedly, attracting viable investment to create competitive industrial ventures would be a catalyst to job creation, *ipso facto* tax revenue. Tourism related ventures are viable options, as the region does extremely well in this sector. Other services however, are needed to diversify away from a sole reliance on one sector. Tax revenues from new ventures could in turn, provide the resources to increase the level of education and training, among other public services. Poverty however, is difficult to eradicate, and the commitment must be longterm, as the rewards can only be seen over time.

### 9.2 ANALYSIS OF THE RESEARCH VARIABLES

Regression analysis was computed, with the research variables as the dependent variable, and possible economic indicators (independent variables) that could be explanatory factors. Government Spending (G) was regressed on infrastructure (I). This analysis was done in an attempt to ascertain if the independent variable, Government spending or the percentage of government spending to GDP are correlated to the dependent variable, infrastructure. In determining causality, one can then make some predictions regarding whether a variable is under circumscribed, whereby the problem ensued.

### 9.3 CRIME AND SECURITY

Crime and security issues seem to follow development and modernization, whereby as some of the citizens benefit from the economic process, and others do not, crime increases, as the economic gains from crime increase (McPeters and Stronge 1973). Crime is defined as excessive, both in frequency and type; petty theft, breaking and entering, and the occasional murder, and those that results from drugs related activities, and are vicious and predatory in nature. Security issues arise when crime exists and enterprises' confidence decline causing adverse effects to an economy. There are no easy
solutions, and spending money through increased police presence appears to be of little use, as the Northern examples indicate.

The root cause of crime must first be remedied, and only when this has been done will the culture of criminal behaviour seem less desirable. The best solution is prevention, that is, prevention of a situation before it becomes a problem. This is not however an option for Barbados, Curacao, Jamaica, Martinique, and Trinidad, as these islands were identified to have crime problems. Jamaica (33%) and Barbados (16%) seem to have the highest incidence of crime, or the perception of crime in these islands appear to be greatest. Curacao (7%), Martinique (12%) and Trinidad (9%) were also mentioned by the respondents to have problems with crime.

Any industry specifically where foreign investment is needed, as is the case of the Caribbean would be wary of overt criminality. Tourism is adversely affected by crime, and in extreme cases such as terrorism and war, the industry would grind to a halt, eg. in the Philippines and Lebanon. People will not venture to destinations where their security would be put at risk. Therefore, it is in the economic and social interests of these islands to deter criminal behaviour.

One factor that appears to have a fairly strong causality of crime in the region, is the level of unemployment. The assumption being that, where high unemployment exists higher incidence of crime would follow. Unemployment in the Caribbean was mentioned in Chapter two, and defined in the region as all those persons between 18 and 60 years old who do not have a job, irrespective of whether they want one or not (FT 1993).

In 1991, Barbados had one of the highest unemployment rates in the region, at 23% of the labour force (see Table 9-3) and it is the highest of the four islands. Jamaica (20%),
Martinique (20%), and Trinidad (18%) levels of unemployment are also very high. Regression analysis of unemployment on crime of seven countries resulted in an $R^2$ of 0.74. The foregone suggest that, there is a fairly strong correlation between the independent variable (unemployment), and the dependent variable (crime). Crime can be explained certainly by high levels of unemployment, thus the implications are such that where unemployment rates are high, crime could be a problem. Bermuda’s unemployment rate in 1991, was about 0.07%, and no one mentioned crime. Antigua and Barbuda’s unemployment rate in 1991, was 4%, and 1.5% mentioned crime. Conversely, St. Lucia has a high unemployment rate, but only 1.7% of the interviewed mentioned crime. Including, all of the Windward islands have high unemployment rates, ranging from 10% to 20% of the work force, yet crime was not shown to be a factor. There are obviously other variables to explain crime, but indepth analyses into the causation of crime are beyond the scope of this treatise.

When multiple regression was done on crime as the dependent variable, and per capita GDP, unemployment rate, and population size, the adjusted $R^2$ was 0.68. The hypothesis that crime is a function of low per capita income, high unemployment rate, and large population size could be considered valid, only if all three variables were evident. The coefficient (1.16) and the t-value (6.22) showed however that, only unemployment could be an explanatory variable of crime. In addition, unemployment reflects non participation of the work force, which results in loss income and human resources. Jamaica was mentioned to have the worst crime and security problems (33%), and its per capita income is the lowest in the Caribbean ($603) in 1991 (with a population of 2.45 million). In 1991, Barbados’ per capita income and population size were US$5,259 and 253,000 respectively (see Table 9-1). In 1991, Martinique’s income per capita was US$11,486, and population of 360,000, and Trinidad and Tobago’s per capita income was US$4,350 (with a population size of 1.2 million). The implication is that, although causation could
be determined by many variables, in this case, unemployment was the only explanatory of crime.

### TABLE 9-1

**GENERAL STATISTICS**

**FOR SELECTED CARIBBEAN ISLANDS**

1991

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>ARRIVALS</th>
<th>TOURISM GDP</th>
<th>POPULATION AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>thousands</td>
<td>receipts</td>
<td>(000s) sq. km</td>
</tr>
<tr>
<td></td>
<td>us$ million</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANGUILLA</td>
<td>31.0</td>
<td>30.8</td>
<td>58.00</td>
</tr>
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<td>201.0</td>
<td>314</td>
<td>387.54</td>
</tr>
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<td>ARUBA</td>
<td>501.3</td>
<td>400.8</td>
<td>610.73</td>
</tr>
<tr>
<td>BAHAMAS</td>
<td>1,427.0</td>
<td>453</td>
<td>3,118.00</td>
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<td>394.2</td>
<td>493.5</td>
<td>1,446.29</td>
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<td>385.3</td>
<td>109</td>
<td>1,670.00</td>
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<tr>
<td>BRITISH VIRGIN ISLANDS</td>
<td>136.4</td>
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<td>417.09</td>
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<tr>
<td>CAYMAN ISLANDS</td>
<td>237.3</td>
<td>437</td>
<td>691.82</td>
</tr>
<tr>
<td>CUBA</td>
<td>424.0</td>
<td>300</td>
<td>1,519.00</td>
</tr>
<tr>
<td>CURACAO</td>
<td>287.9</td>
<td>176</td>
<td>1,104.50</td>
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<td>DOMINICA</td>
<td>48.3</td>
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<td>164.40</td>
</tr>
<tr>
<td>DOMINICAN REPUBLIC</td>
<td>1,416.8</td>
<td>877</td>
<td>7,313.00</td>
</tr>
<tr>
<td>GRENADA</td>
<td>85.0</td>
<td>42</td>
<td>171.40</td>
</tr>
<tr>
<td>GUADELOUPE</td>
<td>370.5</td>
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<td>844.6</td>
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<td>315.1</td>
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<td>41.30</td>
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<tr>
<td>MONSTERRAT</td>
<td>19.2</td>
<td>255</td>
<td>65.38</td>
</tr>
<tr>
<td>ST. KITTS &amp; NEVIS</td>
<td>83.9</td>
<td>74</td>
<td>160.82</td>
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<td>ST. LUCIA</td>
<td>159.0</td>
<td>173</td>
<td>382.04</td>
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<tr>
<td>ST MARTIN/ST. MAARTEN</td>
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<tr>
<td>ST. VINCENT &amp; GRENADINES</td>
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<td>53</td>
<td>196.42</td>
</tr>
<tr>
<td>TRINIDAD &amp; TOBAGO</td>
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<td>101</td>
<td>4,833.79</td>
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<tr>
<td>TURKS &amp; CAICOS ISLANDS</td>
<td>54.6</td>
<td>43</td>
<td>66.00</td>
</tr>
</tbody>
</table>

The foregone seem to imply that crime is related to incidence of higher levels of development based on GDP levels. Where higher levels of income, and high unemployment rates are apparent however, criminal activity may ensue. Although this appears to be the case in the Caribbean, based on their GDPs (see Table 9-1), in 1991, Gross Domestic Product (GDP) was US$1.45 million in Barbados, US$1.48 million in Jamaica, US$4.13 million in Martinique, and US$4.83 million in Trinidad and Tobago (see Table 9-1). To put these figures in perspective, in 1991, Antigua and Barbuda’s GDP was US$387.54 million, Bermuda’s was US$1.67 million, BVI’s was US$417.09 million, and Grenada’s was US$171.4 million. Additionally, per capita incomes are only relatively high in Martinique (US$11,400), as about 70% of its GDP are derived from social transfers from the Metropolis. Hence, the racism and hostility (7.4%) that was mentioned, coupled with incidence of crime, could be problems stemming from the demoralisation that might follow, from both ‘colonialism’ and the ‘welfare state’ (Hintjens 1991). The inference of root-cause, might then be viewed in relation to an economy’s ability to provide: First, jobs for its work force; secondly, wages and salaries that meet minimum standards of living, based on perhaps a regional average; and thirdly, the ability to provide a social system that aids those that are marginalised.

Generally, GDP is the main indicator of a country’s level of economic development, but as it only measures activity, it has proven to be a poor indication of overall welfare (Goldsmith 1994). The measure of development using standard GDP, insinuates that where crime and security issues are problems, those islands (Barbados, Jamaica, Martinique, and Trinidad and Tobago) can be described as ‘developed’, by Caribbean standards. Yet in comparison, Bermuda and the BVI where unemployment is negligible, crime was not mentioned to be an issue, as the overall welfare is adequate. Nonetheless, literacy rates, education and health care are also factors that should be considered when
discussing economic development. It is the erosion of welfare of the populous, which results in crime that is predatory, therefore, corrosive to an economy.

Jamaica was mentioned to have problems with hostility (28.3%), probably due the continued economic problems that a good portion of the population endures. It would be trivial to think that economic hardships would be the only factor of hostility in Jamaica. The colonial heritage and the economic wealth that is concentrated in the hands of the local ‘elites’, especially as per capita income was only US$603 in 1991, could be the underlying causes of this hostility.

Barbados, Jamaica, Martinique, and Trinidad and Tobago have relatively higher GDPs, and have higher levels of economic development, in comparison with the Leeward Islands. Yet, the economies are unable to effectively absorb the excess labour force, and therefore crime and hostility to tourists abound. The non participation in gainful employment that ensues from unemployment is fertile ground for criminal activity, which adversely affect the tourism industry. Any industry, specifically where foreign investment is needed, as is the case of the Caribbean, would be wary of overt criminality in the host country. Tourism is adversely affected by crime, as tourists will not venture to destinations where their security would be put at risk. Therefore, it is in the economic interest, albeit social interests as well, to deter criminality in the Caribbean.

9.4 HOTEL FACILITY AND SERVICE PROVISIONS

Service in the tourism industry, as delineated in the previous chapter, appears to be in need of improvement in all of the Caribbean destination. Hotel facility and service however, are difficult to define and give the notion of quality, which could be fleeting and difficult to express (Collins 1986, Lewis 1987, Parasuraman et al 1985). Services,
including tourism services are intangible, and the perception of quality, and dissatisfaction thereof, would be subjective. The lack of hotel facility and services on Dominica (37%), Cuba (35%), the Dominican Republic (37%), Grenada (14%), Jamaica (15%), Trinidad and Tobago (17%), and the BVI were mentioned by the respondents. These issues are determinants of the decision to repeat the visit to the property, and the likelihood of repeat visits would facilitate medium to long-term planning.

It is particularly difficult to form correlations or relationships between explanatory variables and hotel facility and service, because of the subjective nature of the experiences. When number of rooms were regressed on the responses of hotel facility and service, the correlation \( r^2 0.03 \) was negligible. The hypothesis was that large number of rooms would have a negative experience at the hotels. This was not the case however.

Hotel facility and service quality was classified by Nightingale (1986) with the use of three types of services; person-related, product-related, and information-related services. Product-related services can be termed as the physical property, and amenities, such as, car parking. Person-related services relate to the rooms, meals and grooming services, and information related services would encompass features such as, televisions and radios. These relationships and the lack thereof, give rise to the service gaps (Parasuraman et al 1985), where perceptions between customers expectations, and the services provided, differ from the managers’ perception of quality (Nightingale 1986). Hence there are gaps in the quality of the hotel facility and the service, which directly impacts the consumers’ evaluation.

A probable explanation of the confusion that might have given rise to the mention of hotel facility and service on the given islands, and in Caribbean in general, is the perception gap based on the marketing. If the general visiting public, based on media imagery expect to
be waited-on in an 'exotic' hotel, and if the reality doesn't congeal with the perception, then the experience therefore might be disappointing. Overseas representation, including agents should be truthful in selling, thus reducing this conflict. In addition, constant surveying of clients to detect their wants and needs (marketing) should be a continuous function of the hotels in the Caribbean.

In brief, quality gaps (other than the aforementioned) in relation to hotel facility and service can be defined as; (1) The management gap, which relates to the gap between management perceptions of the needs of guests, and the expectations of the guests, or the question could be does management know what guests expect? (2) the service quality gap or the perceived knowledge of service and the expectation relating to those services gap; (3) the delivery gap, whereby what customers receive and what management actually delivers. It is difficult to determine with certainty what the gaps are in relation to the study, without further indepth research on each island. However, Mathlin (1994) found in a study on Grenada that, the variety of facilities and services were dissatisfying (-0.4), and that the quality of service (-0.2), including Food and Beverage (-0.3), were also dissatisfying, and impacted negatively on the holiday experience. Her findings lend some support to this study's findings on hotel facility and service related problems, and it could be assumed that these issues may also relate to the other islands that were mentioned to have problems in this area.

9.5 INFRASTRUCTURE

The amount of funds spent on Infrastructure improvement depends on government spending in the Caribbean. The level of investment undertaken by government to improve the roads, airports, seaports and road signs would be determined by the amount of GDP. Therefore the level of infrastructure development to take place would be given:
Chapter 9: Analysis of Structural Problems

\[ I = f(6G) \]

where:
- \( I \) is spending on Infrastructure
- \( 6 \) is percentage of Government spending on infrastructure
- \( G \) is total government spending as a percentage of GDP

Therefore, a statistically significant regressor might be expected, if infrastructure was regressed on the percentage of government consumption allocated to infrastructure improvements. Moreover, the statistical results would only prove material if the islands that were mentioned to be deficient in good infrastructure, spent a smaller portion of their Government budgets on its improvement. The percentage of Government consumption to GDP that is spent on the infrastructure, can be denoted:

\[ I = \alpha + \beta G + \mu \]

where:
- \( \alpha \) is the minimum level of investment that is employed to upkeep the infrastructure
- \( \beta \) is the increment by which government spending on the infrastructure changes
- \( G \) is the amount of Government spending as a proportion of GDP
- \( \mu \) is the error term or residuals

If one assumes that minimum government spending, which takes place in the economy is on infrastructure, as taken from Keynesian theory. Thus, the incremental change increases the investment in infrastructure, as the percentage of Government spending to GDP changes.

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When a regression analysis was calculated with government spending as the independent variable, and those islands that were indicated to have problems with the Infrastructure as the dependent variable, the results were statistical insignificance, with a weak association ($R^2 0.11$). When GDP was used in lieu of government spending, in regression analyses on the number of responses, who noted that Infrastructure needed improvement, the results were also statistically insignificant, with a weak association ($R^2 0.02$). Theoretically, the level of investment undertaken in a country to improve the infrastructure is the sole responsibility of the government. The hypothesis was that those countries that had problems with infrastructure had lower levels of government spending. The analysis suggests that this was not always the case.

The level of government spending among the islands has been an average of 18% of GDP (see Table 9-2), in 1991. Antigua and Barbuda were mentioned to have infrastructure problems (27%), and government spending increased consistently for the six years following 1985, to 23% by 1990, but in 1991, spending declined to 20% of GDP (see Table 9-2). Dominica was quoted to have problems with infrastructure (37%), yet government spending has been about 22% GDP, in 1985 and 1990, to 24%, in 1991, six percentage points above the regional average. St. Lucia was also mentioned to need infrastructure improvements (16%), and its government consumption, in 1991, was 16% of GDP, two percentage points below the national average. The percentages of persons that noted problems with the infrastructure on St. Kitts and Nevis (8%), and the BVI (5.1%) were lower than Dominica, and the percentage of government spending, in the year 1991, was 24% and 17% respectively, which are about the regional average for that year. Infrastructure problems here, relate to the lack of an international airport, which would explain the correlation, given that the flights from the EU are longhaul, and to arrive on these islands, one must obtain a connecting flight.
Cuba was shown to have infrastructure problems (33%), and government spending for the period 1980 to 1990 was a mean of 11.5% of GDP (see Table 9-2). In 1991, the percentage of GDP that related to Government Consumption was only 6%, about 12 percentage points below the regional average (see Table 9-3). The Dominican Republic was also mentioned to be deficient in infrastructure (10%), and its levels of government spending were also low. The proportion of GDP that represents Government spending was lower than Cuba, the lowest in the region. The country spent about 3% of its GDP on Government consumption, in 1991, and from 8% to 3%, from 1980 to 1990 (see Table 9-2). The inference of lower levels of government spending, following the neglect of services that exists in the public domain for Cuba and the Dominica Republic, can be drawn from the above analyses, but do not apply to the remaining islands.

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<td>ST. LUCIA</td>
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<td>23</td>
<td>19</td>
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<td>ST. KITTS &amp; NEVIS</td>
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<td>20</td>
<td>*20</td>
<td>17</td>
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* 1989

Source: OECS/OAS, Antigua
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<th>CONSUMPTION</th>
<th>INVESTMENT</th>
<th>UNEMPLOYMENT</th>
<th>NO. OF ROOMS</th>
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<td></td>
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<td>us$ million</td>
<td>us$ million</td>
<td>percentage</td>
<td></td>
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Sources: FT 1993, CT0 1992, UN 1993, IMF 1993
To a lesser extent, similar discussions can be implied of St. Lucia, although government consumption is only marginally below average, at 18% of GDP. Cuba's and the Dominican Republic's levels of Government Consumption as a proportion of GDP have been however, considerably below the regional average. To develop, and continue the economic development process, including the provisions for the tourism superstructure, more money needs to be spent on the infrastructure, among other public utilities. Chapter three outlined the basic structure of these economies, and although inter alia, housing, health care, and education appear to adequately meet the basic needs of Cubans, the Dominican Republic is below regional standards.

The aforementioned discussions cannot be extended to Antigua and Barbuda and Dominica however, as these countries' Government spending to GDP are above regional average. Indeed regression results were unfavourably largely due to the fact that, the majority of the islands had a fair amount of its GDP contributed from government spending. The problems have to be explained otherwise. Antigua and Barbuda infrastructure problems have probably been neglected, in lieu of improvements of other public utilities. During the 1980s, the government invested in the communications sector, including telephone line extensions, airport expansion, and other aspects of the tourism superstructure. Primary roadways were maintained, but secondary roads and signs were neglected. Similarly, Dominica has spent large sums of money to improve its primary roadways (Sutton 1991), but secondary roads and its airport facility remains inadequate.

The amount of Government consumption that pertains to spending on the infrastructure (\(\beta\)), during the 1980s is needed, as mentioned before, in order to determine causation, based on regression analysis. Therefore the equation can be rewritten:

\[
I = \alpha + G
\]  

(9-3)
as $\beta$ is unknown in this case. In addition, the minimum level of spending ($\alpha$) is unknown, thus the only indication of infrastructure spending, or problems is the level of Government consumption to GDP, denoted:

$$I = G$$ (9-4)

and to expand the equation to show the proportion of $G$ to GDP to give:

$$I = G = \delta GDP$$ (9-5)

where:

$\delta$ could be a fixed or variable percentage from one year to another.

One factor that may have proven equation 9-5, to be adequate statistically, could be the use of time series data. A ten or twenty year time series would show, both the level and the percentage of government spending in relation to infrastructure over that time. Regression analyses of this could prove more useful, and as ‘realistic formulation of economic relations often requires the insertion of lagged values of the explanatory variables’ (Johnston 1972:292); thus the formula can be rewritten to introduce the insertion on lagged variables, given:

$$I_t = \beta_0 G_t + \beta_1 G_{t-1} + \ldots + \beta_n G_{t-n} + \mu_t$$ (9-6)

where:

$\mu_t$ is the error or disturbance term over time, an indication of imprecision.

The use of lagged proportions of Government spending that pertain to Infrastructure, would point to some possible weaknesses that might have caused infrastructure problems.
Another important lagged variable would be the use of an equation with lags of the dependent variable (Infrastructure), using either the partial adjustment or the adaptive expectations models. The partial adjustment allows for ignorance, inertia and the cost that would be needed to improve the infrastructure, introduced by a Koyck scheme, to give:

\[ I_t^* = \alpha + \beta G_t \]  

(9-7)

where:

- \( I_t^* \) is the optimum rate of expenditure on Infrastructure.

The amount of government spending that could be spent on the infrastructure as denoted by \( G_t \) could increase as GDP rises, perhaps due to increases in tourism receipts. This would depend on how much the economy relies on tourism as its percentage share of GDP. In islands such as Antigua and Barbuda, and Dominica, the government may be unaware that the level of government spending on the infrastructure can be adjusted to attain optimum levels. Therefore, a reaction or adjustment function must be built into the model to give:

\[ I_t - I_{t-1} = \gamma (I_t^* - I_{t-1}) + \mu_t \]  

(9-8)

where:

- \( 0 < \gamma \leq 1 \)

Obviously, the closer \( \gamma \) is to unity, the bigger the adjustment made to Infrastructure. Countries that were noted to be in need of improvements to facilitate the tourism industries, such as Antigua and Barbuda, and Dominica, would need to be fairly closer to unity. An assessment of the investment on the infrastructure, based on the level of additional income (Y) obtained from the industrial sectors, must be continuous. The
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islands need to reassess their commitment to public utilities *sui generis*, as massive investment programmes are needed to improve the infrastructure.

Undoubtedly, the costs of investment in general, in relation to the cost of investment on the infrastructure must be considered, as resources are often diverted to other areas of the economy deemed more important for political reasons. Health and education might be viewed to be more important areas for improvement than the upkeep or improvement of a country's infrastructure. Classical and neoclassical economists would argue that, the areas of the economy that bring economic benefit (infrastructure improvement to aid logistic for trade) should be addressed initially. Conversely, Keynesian economists would debate that, hugh sums of government spending on welfare are more advantageous to the well-being of the economy. Thus, taxation and income redistribution would be preferable government policies. Whatever the economic caveat, the investment in public utilities requires money, and often the level of spending is dictated by political agendas.

The decision to invest or not, incurs costs, and the costs of being in disequilibrium (a), vis à vis the cost of investment on the infrastructure (b), in quadratic form, is given:

\[ C_t = a (I_t - I_t^*)^2 + b (I_t - I_{t+1})^2 \]  

(9-9)

The decision should be to choose to invest \(I_t\), and given the time lag \(I_{t+1}\), the optimum level of investment on the infrastructure, would reduce cost \(C\). Therefore;

\[ \delta C_t \]
\[ \frac{\delta C_t}{\delta I_t} = 2a (I_t - I_t^*) + 2b (I_t - I_{t+1}) = 0 \]  

(9-10)
to give:

\[ I_t - I_{t-1} = \frac{a}{a+b} \left( I_t^* - I_{t-1}^* \right) \]  \hspace{1cm} (9-11)

which gives the same equation as equation 9-8, as a and b are positive. Only if \( b=0 \), would the \( \gamma \) parameter approach unity, and would the adjustment be complete within the current period. Otherwise, only partial adjustment is realised in the current period, and by combining equation 9-6, 9-7 and 9-11, to give:

\[ I_t = \alpha \gamma + \beta \gamma G_t + (1- \gamma) I_{t-1} + \mu_t \]  \hspace{1cm} (9-12)

The assumption with the partial adjustment model is that, the optimal value of Infrastructure investment is solely dependent on the current value of I only. Therefore, it might be unwise to base decisions only on the current value, if the level of investment changes from period to period. Thus, the expectations model dictates the level of Investment on I that relates to the level of \( G \), namely \( G^* \), for example 24% of Government to GDP, in 1991, for Dominica would be the expected level of \( G^* \). This figure might be inadequate to improve the infrastructure, thus a complete analysis of 10 or 20 year percentage spending pattern would be more conclusive. Nevertheless, the expectation's model is written:

\[ I_t = \alpha + \beta G_t^* + \mu_t \]  \hspace{1cm} (9-13)

where:

\( G_t^* \) is the expectation at time period \( t \)
which is similar to equation 9-2, but with the allocation of time lags.

Adaptive expectations are more useful, as the fraction of the discrepancy of the previous value, and the current observed value of Infrastructure spending are used to update the expectations. The adaptive expectations are given as:

\[
G_{t}^{*} - G_{t-1}^{*} = \delta (G_{t} - G_{t-1}^{*}) \tag{9-14}
\]

where:

\[
0 < \delta \leq 1
\]

To simplify equation 9-14, written as:

\[
G_{t}^{*} - \lambda G_{t-1}^{*} = \delta G_{t} \tag{9-15}
\]

where:

\[
\lambda = 1 - \delta
\]

Of course, further adjustment can be made by adjusting the time lags for both the adjustment and expectations models, thus rewriting equation 9-14 as:

\[
G_{t}^{*} - G_{t+1}^{*} = \delta (G_{t-1} - G_{t-1}^{*}) \tag{9-16}
\]

where the final equations of the model would be identical, given:

\[
I_{t} = f (G_{t-1}, I_{t-1}) \tag{9-17}
\]
indicating that the current level of investment spending on the infrastructure is a function of; the amount of Government consumption a year earlier, and the amount spent on the infrastructure a year ago. The shortcomings of this assumption is the implication that I is adjusted immediately to meet the expected level \((G')\), of government spending. Therefore, by combing the two assumptions (partial adjustment and adaptive expectations), to give:

\[
I_t^* = \alpha + \beta G_t^* \tag{9-18}
\]

\[
I_t - I_{t-1} = \gamma (I_t^* - I_{t-1}) + \mu_t \tag{9-19}
\]

where:

\[
0 < \gamma \leq 1
\]

\[
G_t^* - G_{t-1}^* = \delta (G_t - G_{t-1}^*) \tag{9-20}
\]

where:

\[
0 < \delta \leq 1
\]

rewritten:

\[
I_t = \alpha \gamma + \beta \gamma \delta I_t + [(1-\delta) + (1-\gamma)I_{t-1} - (1-\delta)(1-\gamma)I_{t-2} + (\mu_t - (1-\delta)\mu_{t-1})] \tag{9-21}
\]

The cost of not investing now on the infrastructure will have negative implications in the future. Resources needed in the long-term to rectify current and future deterioration of the islands' infrastructure problems, would require higher percentages of Government spending, and by extension GDP. Therefore, those countries pointed out to have
infrastructure problems, cannot afford to ignore the criticism. If further economic development is to be attained, and industrial efficiency is to be maximised, then public utilities must therefore meet minimum western standards. Tourism and other economic activities cannot be advanced and exploited to their full potential, if the framework within which they function is eroded. The infrastructure is one of most important areas that need to be provided for tourism (Bryden 1973, Matheison and Wall 1995), and other economic activities. Indeed government funds are derived from industrial activities, such as tourism, and some of its revenues should be invested to improve public utilities. Good workable public utilities not only benefit the islands’ citizens, but help in facilitating other economic activities, through improved access and communication.

9.6 POVERTY

Although poverty might be one of the major causes of crime, the countries that were noted to have crime and security issues were not mentioned to have problems with poverty. The assumption being that poverty stems from very little or no money, due to high unemployment or seasonal unemployment. Yet, as high unemployment is fairly correlated to high incidence of crime as delineated in the foregone, crime and security issues would be noted. This was not apparent from the analyses however, but there might be at least three explanations for this anomaly, (1) poverty is expected by the respondents hence they ignore it as a problem, (2) the hotels are situated away from villages, in enclaves, and (3) absolute poverty was more easily identified than relative poverty. When per capita income was regressed on poverty, the correlation proved weak ($R^2$ of 0.5), possible due to the fragility of per capita income as a measure of prosperity. In the absence of other reliable measurements such as calorie intake, cars per household, rooms per family, doctors per capita, homelessness and other social variables, a comprehensive regression to explain poverty is unlikely.
Population size appears to be one indication of poverty in the Caribbean, which was also an indication of crime in multiple regression calculations. Regression analysis resulted in an $R^2$ of 0.90, suggesting that poverty is associated with population size in the region. High population in the Caribbean could be an indication that poverty exists. Multi-regression with poverty as the dependent, and per capita income, unemployment rate and population size as independent variables showed strong correlations, based on the adjusted $R^2$ of 0.78. Poverty can be explained not by one variable, but a combination of variables. The corollary, based on results on Dominica, would be that poverty need not precipitate the loss of dignity, resulting in criminal behaviour, although the two (crime and poverty) can be expressed by the same variables in multiple regression analyses. The inference is that, where there are lower levels of per capita income, large populations, and high unemployment however, dire poverty results. In lieu of measures to address gross inequality of wealth, cataclysmic occurrences in the islands that were mentioned to be poor could occur.

Poverty was mentioned to be a problem in Cuba (35%), Dominica (15%), and the Dominican Republic (29%). In the cases of Cuba (10.5 million) and the Dominican Republic (7 million), large populations are a major deterrent to higher levels of living. In both cases, GDP is quite considerable, US$15,198 million and US$7,313 million respectively, yet despite these impressive figures, the poverty levels are abysmal. The World Bank (1994) reported that, 8 percent of children in the Dominican Republic suffer from malnutrition. School enrolment is 90 percent, but ‘the quality of education is poor... late entry, repetition, and dropout rates are high... repetition rates of 19 percent, and dropout rates of 10 percent’ (The World Bank 1994:135).

Socially rigid societies where the classes are kept firmly in place, would result in widespread lower standards of living (poverty), which are obstacles to economic
development and progress (Beckford 1972). This is seems to be the case in the Dominican Republic, although these discussions could apply to many ex post ‘plantation’ economies of the Caribbean. However, a complete analysis of the social fabric, which might be a causative factor of this poverty is beyond the scope of this treatise.

Cuba and Dominica however, may fit into problems of agrarian based societies with inter alia, a small tertiary (services) sector, little industry, and limited opportunity to generate income. The foregone culminate into lower per capita incomes, of about US$2,205, in 1991, for Dominica, and US$1,446 for Cuba (see Table 9-1). Dominica’s population is small however (77,000, in 1991), in contrast to Cuba’s 10.5 million, in the same year. Dominica’s low GDP, in 1991, of US$158.3 million, trails behind Grenada (US$210.1m) and St. Vincent and the Grenadines (US$189.1m) and St. Lucia (US$367.9 m), placing it among the poorest in the region. St. Lucia (5%) and Grenada (6%) were also indicated by the respondents to have poverty, two other Windward islands with a similar character as Dominica. Surprisingly, St. Vincent and the Grenadines were not mentioned to have poverty, despite a low per capita income (US$1,757), in 1991. Generally, the Windward Islands have had a long struggle to increase their living standards, but as is typical of agrarian based societies in the absence of industry, incomes are low. Programmes that would be suited to the Windward island economies, with their natural resources should be implemented. Development programmes that are tenable within the agronomic sector would be ideal, such as seafood nurseries and agro-industries. These food products could then be purchased by the ‘tourism’ islands, thus formulating linkages within the region’s agronomic and tourism sectors.

The eradication of poverty can only be accomplished with massive government spending, where programmes are put in place to combat issues that cause poverty. The process must
start with the people, where 'education, organisation and discipline' (Hope 1986:5) not goods (see Figure 9-1), are the necessary ingredient; as illustrated;

Figure 9-1

Organisations [Agriculture, Manufacturing and Services (tourism)]

Education/Training ↔ Economic Development ↔ Work/Discipline

Integrity

The will of the people must be apparent, and commitment by the government must be envisaged to end the continued waste of human resources. Poverty is easier to remedy than crime, through various AID packages, but the work, discipline and integrity must planning and implementation must be a prerequisite. In lieu of policies to solve the problems, they will remain, and could deteriorate.

Tourism as one of the major industries in the Dominican Republic, as is apparent with its 20,400 rooms, could, in light of the poverty situation become exploitive in nature (Commonwealth Consultative Group 1985, Hope 1986). There might be increases in, or additional social problems, involving pedophile activity and prostitution, so apparent in 'sex tourism' destinations, such as Thailand and Sri Lanka. The Windwards islands'
ability to attract foreign investment, and the continued adherence to tourism and other industrial organisation would render the continued development of the islands. However, major limitations are apparent, ipso facto it is dubious whether tourism on its own, can provide the base by which poverty is eliminated. In some cases the physical, social, economic and political framework, a much needed prerequisite (Reime and Hawkins 1979) is relatively inadequate to the render the industry viable. In others, structural problems, such as mismatched skills may result in unemployment in particular sectors, even though temporary.

Policy decisions should be made at the government level to combat these problems, by a concerted effort of government and industry. When the US' government statistics report outlined that the majority of the work force by the year 2000 would be the present minority youths, a concerted effort by industry to aid in their education process was undertaken. IBM and Xerox contributed resources, in an attempt to guarantee that a skilled and educated work force would be on hand to ensure the industries future viability. Small islands such as Jamaica and Barbados cannot afford to ignore issues of crime and a criminal culture, especially among its youths. Education and training are vital to all sectors of the economy (Bryden 1973, Cumberbatch 1987, Echtner 1995, Guerrier 1986, Sinclair 1992), and its benefits, although longterm, must be forcefully projected to the young. Industries such as, tourism (hotels) should have vested interests in reducing criminal activity. Afterall, the proliferation of crime stands to hinder this industry's profitability. However, given the type of investment incentive the governments offer to foreign investors, the investment by hotels in their local employees could be ignored. Moreover, the continued struggle against poverty must remain at the top of Jamaica's and Trinidad and Tobago's governments' agenda, as the World Bank (1994) reported that two-thirds of Jamaicans, and one-tenth of Trinidadians live below the poverty line.
Hagen (1980:149) postulated that 'capital, entrepreneurship, and in some countries land, are the scarce factors in economic growth in Lesser Developed Countries (LDCs), and labour is the plentiful factor'. This is indeed true of the islands in the Caribbean islands that were mentioned to have crime and security issues, and poverty. Therefore, Governments could give investment incentives to encourage local entrepreneurship activities (Shaw & Williams 1990), given its ability of job creation. The rewards would be future tax revenues and general economic well-being of the region, due to increases in economic activity. Programmes could be instated, similar to the 'Prince's Trust' program in the UK. Grants, tax and duty concessions are allowances that the governments of islands such as Antigua and Barbuda, have provided for local tourism businesses. An enterprising culture should be encouraged, an anathema to the 'elite' classes who prefer the professions (law, medicine) to commerce (discussed in chapter three), but could be fostered among the nonparticipating classes (Echtner 1995).

Labour is a factor of production, along with land and capital, but too often in pursuit of massive wealth, the investment in human capital is ignored. In the contemporary world, aggregate output can be written:

\[ Q = f (R, L, K, T) \]  \hspace{1cm} \text{(9-22)}

where:

- \( Q \) is output or Income
- \( R \) is land
- \( L \) is labour
- \( K \) is Capital
- \( T \) is technological advances

Aggregate output is therefore the production function, whereby growth is analysed.
Education of the workforce in any country is a necessity, specifically in today’s rapid technological driven societies. Education in this context refers to both academic and technical, and should be continuous. Technological advances in the US can be bought and transferred to the Caribbean, to increase both knowledge and value added to human resources. No country can afford to ignore this factor, least of all the Caribbean with is dependent economies. Efficiency lends it advantageously competitive for foreign investment. Therefore, education and training can be viewed as a sub-function of the business process, a pertinent expense. The results should be increased productivity and economic growth.

Economic growth can be defined as ‘the product of a country’s ratio of investment to output (I/Q), and its productivity of investment (Thirwall 1992:65)(ΔQ/I), written:

\[
Q = \frac{\Delta Q}{Q} = \frac{I}{Q} \times \frac{\Delta Q}{I} \quad (9-23)
\]

where:
- I is investment
- \( \Delta Q \) is change in output

The inability of economies to grow at adequate levels, hinders its capability to absorb excess labour. Low growth levels usually translate to the poor being unprovided for, and *ipso facto*, incidence of crime and security issues may follow. Slow growth results in lower output levels or income, which might either be a question of low investment ratios, low productivity of capital or a combination of both. This can be applied to those countries with these problems, but the social and political framework are systemic issues that must be recognised. Notwithstanding, income as an expression of the product of the
total labour force (H), and output per unit of labour (Q/H), infers that growth can be seen as the sum of the rate of growth of the labour force (ΔH*H), and the rate of growth of output per unit of labour or productivity of labour, ((Δ(Q/H)/(Q/H))), to give:

\[
Q = \Delta Q = \Delta L + \Delta (Q/H) \quad (9-24)
\]

Therefore, growth is dependent on the growth of income per unit of labour, through the improvement of the productivity of labour. This can only be made possible with the improvements in the quality of labour, capital, technical adaptation and knowledge.

It could be argued that these functions are exogenous to the local economies of the Caribbean, and that high cost is a deterrent. The rebuttal would be that the cost would be greater, if the investment in human capital is ignored now, for whatever reason. The economies would be unable to compete with other developing countries for foreign investment, *ipso facto*, it must be stressed that these are the problems of the government. Policies should be implemented, where economic tools are used judiciously.

9.7 CONCLUSION

The variables that were identified and discussed relate to the level of development of the economies. Crime and security related issues, hotel facility and service provisions, infrastructure, poverty, and vendor hassling were problems mentioned by the respondents. The relationship of these issues to industry, and in specific, to the tourism industry, is largely a negative one. The problems can not go unsolved, and in some cases, eg. crime, containment may be the realistic option, and in others, the problems need to be remedied.
Crime and security issues may be a function of high levels of development, and the modernisation thesis, as the problems were mentioned in relation to the more development islands in the Caribbean (based solely on their GDPs). Economic and social variables, such as, GDP and unemployment rates, were computed in regression analyses, and the results pointed to fairly strong correlations among those countries that were mentioned to have crime and security problems. Multiple regression analysis, with crime and security issues as the dependent variables, on the independent variables - per capita income, unemployment rate and population, resulted in an adjusted $R^2$ of 0.68. The hypothesis is that low incomes per capita, high unemployment rates, and high population size could a causation of crime and security issues in those countries that were mentioned to have problems with crime and security issues. Regression analysis with income per capita ($R^2$ 0.14) and GDP ($R^2$ 0.12), as the independent variables showed weak correlations between the variables. Notwithstanding, the hypothesis that high unemployment could be an explanation of crime and security issues was accepted (t-value 6.22, and $x$ coefficient of 1.16), with an $R^2$ of 0.74. The income variables are measurements of economic activity and income relating to populations, which were poor indicators of crime and security issues.

The islands have 'open' economies, whereby inward (foreign) investment is an integral part of the economic process, and persistent problems would adversely affect this vital process. Foreign investment is a catalyst to job creation, and increases in income, which are needed in the Caribbean, whereby social problems, such poverty, and public goods, such as infrastructure can be minimised, and provided. In both cases, the commitment must be longterm and on going, as results are typically not immediate. Poverty and infrastructure are problems of the government, and solutions can only be accomplished with government spending, planning and policy implementation. The hypothesis that low government spending would result in problems of infrastructure, proved to be incorrect,
but as the percentage of government spending on the infrastructure is unknown, the hypothesis needs to be tested further. The hypothesis that poverty could be explained by low levels of per capita income, high unemployment, and population size was accepted (adjusted $R^2$ of 0.78), and population size proved to be a good causation of poverty. Poverty can be explained not by one variable, but a combination of variables, which are the same variables that showed a high correlation to crime. Crime and poverty are therefore related, where there is a combination of high population size, low per capita income and high unemployment rates.

Crime and security issues, lack of good hotel facility and service would adversely affect the tourism industry, and foreign investment. Tourists would be unwilling to be exposed to danger, and without this vital industry, the region would not survive economically. Longterm neglect of hotel facility and service, would result in a decline in arrivals, which would be detrimental to the regional economies.

The economic development process in the Caribbean has had an undulating path, and the future appears to be not much different from the past experiences. Indeed, there are no easy answers or solutions, and although the economies suffer from constraints that retard development, the economies manage to advance, with the help of tourism development. The development and other problems, which were highlighted in the previous chapters, result from issues relating to size, and the social and political economy. It is here that the researcher, as is suggested in the following chapter, realises the insurmountable task that one encounters when one attempts to answer the question of the economic development of the Caribbean.
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10 CONCLUSION

10.1 THE CARIBBEAN AND THE EU

The research's intent is concerned with the evaluation of the level of Caribbean economic development, and the contribution of tourism development, from an EU perspective. The major hypothesis relates to the level of development, which was extracted from the primary data, based on responses in the European Union (EU). The EU's historic trade links with the Caribbean have been in place since the Caribbean's inception. Hence, the importance of the EU as a trading partner of the Caribbean has been evident in primary goods, and increasingly in services (tourism). Tourism development has proven to be the main avenue of development, and it has in the Caribbean, as Reime and Hawkins (1979) postulated, been a model for economic growth. The more advanced economies (The Bahamas, Bermuda, BVI, and the Caymans) have used tourism to launch their economies, and have used its international exposure to diversify into offshore finances. Antigua and Barbuda, Nevis and other Caribbean islands are attempting to do the same. It seems therefore that, based on world trends and the findings in the research at large, that Caribbean trade with the EU will continue to be in a limited range of goods, but permanently, trade is in services.

The climate, geography and proximity of the Caribbean islands almost from the beginning, precluded the types of economic organisations, that existed. Large scale economic activities were successful during approximately the first three hundred years, only where plantations survived with a single crop (sugar), and with exploited labour. Sugar production dominated the economic and social systems. The economic framework of the Caribbean was such that, one political, and by extension one economic system, dominated the region. Western European wars, differences, and antagonism, based on the need to dominate and control, were displayed aggressively.
in the Caribbean. Indeed, no region (including all of the Americas) has been fought over as the Caribbean. It was seen by Western Europe, to be the most strategic position to world dominance. Hence, these rivalries resulted in the region at large, and the Caribbean in particular, to be separated across linguistic lines (Serbin 1991). There are four languages spoken in the Caribbean, English being the most dominant (due to North America), French, Spanish (spoken by the majority), and Dutch. If one was to include the greater Caribbean area, one would have to add the Portuguese language.

From the early 1500s onwards, the combination of European out-migration, whether forced by the ‘home’ office or voluntary, the involuntary transplant of West Africans, and indentured labour from India and China, formed the labour force in the Caribbean (Williams 1971). Evidence of this mélange of peoples is apparent to this day, in the region. In many ways, it is the peaceful coexistence of these varied peoples, and the ‘westernisation’, which have resulted in the relative political stability of the Caribbean islands.

Conversely, although Caribbean nations are not combative towards each other; it is most probably the differences across linguistic lines, and suspicion (with Latin America) left over from the rivalry era, which are major deterrents to closer regional cooperation and integration (Serbin 1991). Nonetheless, progress in this area needs to be made urgently. It is encouraging to note that with Cuba’s recent acceptance as a member of Caricom, and Columbia gaining observer status, regional cooperation could be eminent. The Dominican Republic, Haiti and Venezuela are already members, along with the greater English speaking Caribbean islands. The ‘DOMS’ are unfortunately not members, and neither are the Netherlands Antilles. The DOMS are restricted by France’s overseas policy (Hintjiens 1991); and the Netherlands Antilles continue to seek ways to navigate their idea of ‘nationhood’ (Hoeft and Oostindie 1991).
In 1834, emancipation occurred, and that was followed by the decline in export prices *a priori* to WWII, due in part to the competition from European sugar beet, which led to the demise of the sugar industry. The Caribbean lost its comparative advantage in sugar, as European sugar beet was more cost effective to produce, and prices were cheaper. The Caribbean factors of production would then have to be diverted to other products. In the Windward islands, bananas replaced sugar and cocoa, and in the Leeward, initially cotton replaced sugar. Increasingly however, in the entire Caribbean, tourism emerged as the main economic activity (Bryden 1973). Evidence of organised tours, from the UK were documented as early as the 1930s (Aspinall 1935), but full scale tourism began in the 1950s, with the arrival of the ‘jet age’.

However, commodity exports have always had problems, and without exception, Caribbean eco-political systems were governed from the ‘home’ countries until independence. It was there that successful lobbying for higher commodity prices, benefitted from the types of economies possible under plantation, or monopolistic type operations with a vast marketplace. Indeed, it is the constant lobbying of Britain and the Caribbean Banana Association’s within the EU, that has aided in the survival of Caribbean bananas’ special access to the EU area.

The members of the European Coal and Steel Community (ECSC) under the Mansholt plan, resulted in the Treaty of Rome in 1957, of which Britain declined participation. The Treaty of Rome established the original 6 into a full European Economic Community (EEC), a customs Union that eventually doubled to 12 members by 1986. The ratification of Maastricht in 1993, brought about full federation, which resulted in the renaming of the community, to the European Union (EU). Britain’s entry in 1971 essentially meant the end of the Commonwealth, including the Lesser Antilles gaining independence. Conversely, the French islands gained closer ties with France, becoming ‘département d’outre mer’ (DOMs), a region of France. The Dutch islands also remained directly linked with the Netherlands, similar to the DOMs.
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The entry of Britain into the EU resulted in trade with the Caribbean, becoming subjected to rules under the EU's Common Agriculture Agreement (the CAP). Thus, Caribbean produce would be threatened, becoming victims of EU protectionist policies. The existing preferential access instrument, which allowed goods entry into the EU area from ex post colonies of France and the Netherlands, free of tariffs and quotas, were applied to the Anglophone Caribbean. The UK entry made possible the Caribbean's acceptance to the Lomé Convention, hence access to a wider Western European area. Thus, trade with the EU nations (15 countries in 1995), might not have been easily negotiated in the absence of this type of agreement. Provisions were outlined explicitly in the Lomé convention of 1975, a trade-aid agreement, which is negotiable every five years. Lomé IV was discussed in 1989 and in 1992, and in 1997, Lomé V will be discussed.

The Caribbean has few goods to offer, but one in particular, export sales of bananas, have been a particular problem. The agrarian economies became exporters of mainly bananas, and the issue of agronomic reorganisation remains at the heart of the discussions regarding the region's agriculture. The unstable position of banana economies meant that severe losses were incurred, due to world trade problems, thus the diversification into tourism services inevitable. The natural resources that resulted in the Leeward's success with regards to tourism however, is not apparent in most of the Windward (banana) economies. The question of effective tourism resources, modelled after the Leewards, remain central to their tourism development, thus their ability to rely on tourism as a main economic sector is questionable. The need to diversify agriculture production, and increase agro-industries seems logical, but the tenacity to effect the foregone remains to be seen. The problem of Caribbean bananas continues nonetheless, where the main causes of the problem are attributable to the non-inclusion of Central American bananas to the EU market, under the MFN clause.
Central American banana growers complained to the General Agreements on Tariffs and Trade (GATT), concerning their difficulty in accessing the EU market. Long and tedious negotiations ensued, which resulted in the price of Caribbean bananas having to be reduced, thereby, allowing for some competitiveness with Costa Rican and Colombian bananas. Caribbean bananas suffer from high cost of production, which results in higher prices. Nonetheless, lower prices meant significant loss of revenue to the Caribbean banana producers, a factor that is sure to continue in subsequent Lomé discussion. Lower prices however, meant that Caribbean bananas were in a better bargaining position.

The banana debacle continues along with the trend in misunderstanding, suspicion, and non-cooperation within the region, which could be left over from the rivalry era. Developing neighbouring countries should be negotiating amicably, in lieu of international debates, as the nations pursue common agendas. The need for the Caribbean to diversify away from a sole reliance on bananas in the commodity markets should be seen as urgent, since the threat remains from the more competitive Central American producers. There prevails the need for a tenable policy, regarding the restructuring of the Caribbean agriculture (Farrel 1983, Ford 1992), where food self-sufficiency is a priority. The continued trend has been in exports of goods, which rely on protected markets, which may not be sustainable.

The islands suitable for agriculture should, and probably given the current trend, will become the food basket of the region. They could produce food products that would be used in their natural state, as well as for utilisation as inputs in agro-industrial products. The EU has stressed the need for diversification and restructuring of the region’s agriculture, and will provide funds to aid this process. Article 158 of the Lomé agreements (EEC-ACP 1989:59), mentioned the need for the ‘promotion of food security’ within the context of regional cooperation and integration. Holder (1980:79) postulated that, there is a need for some islands to pursue the ‘... development of light
industries and agro-industries. Tourism, where it exists, can help these industries along'. Reorganisation of agriculture (Davenport 1991) is urgently needed, but can only be accomplished successfully on a regional basis.

Agriculture reorganisation could be positioned to form intersectoral linkages with the tourism industries in the region, thus minimising food imports. Agriculture and manufacturing goods remain beneficial to tourism’s viability, and the region’s continued economic development. In the absence of backward linkages however, the full benefit of tourism to contribute to the region’s economic development would be restricted. It is therefore necessary, to nurture those industries that contribute to the region’s economic development.

The services industry was mentioned in Lomé IV, and special mention was made regarding tourism (EEC-ACP 1985) and its role in economic development. The EU recognises services’ positive economic impact on ACP economies, and is encouraging the development of the services sector. Lomé has outlined various ways by which this might be accomplished. Tourism development has single handedly accounted for the Caribbean’s economic development, as the region has the comparative advantage to exploit this industry, given its natural endowments and political stability. Conversely, the region has very little advantage in export agricultural crops, except spices that yield low export earnings. Banana cultivation that is most efficient will probably remain, but total reliance on one commodity is not without risks.

Caribbean trade with the Europe Union (EU) is largely in primary goods with some limited trade in secondary goods, but the growth is likely to be in services. Not only are services a growth area of the world at large, but protectionist policies against invisible, such as tourism (Hindley 1988, Lee 1991, Momsen 1986) are much more difficult to install. Tourism can possibly avoid the pitfalls of bananas and other commodity goods, which have experienced repeated restrictive barriers to trade. Trade
with the EU, both in tourism and commodities continued, signifying that good relations with the EU and the Caribbean have continued.

The manufacturing sectors are further disadvantaged, largely due to cheaper sources of labour in the Asian and Pacific areas. In addition, the likelihood of EU trade barriers continuing seems probable, given that the strict 'rules of origin', of inputs remain. The continued importance of tourism and services \textit{sui generis}, (including off-shore financial activities, and informatics) will increase in the Caribbean, and the decline of export crops will continue. The region continues to benefit from the trade and aid instruments, under Lomé. The nations' ability to utilise these instruments effectively will aid their development, but these privileges will not be available indefinitely.

Entrepreneurship plays a pivotal role in the sustenance of key industries in the economies, where small and medium enterprises (SMEs) comprise the private sector. The islands need to increase the involvement of the local people in the development process (Wilkinson 1989). The granting of incentives to local and regional businesses to encourage local investment and entrepreneurship, as implemented by the Grenada government, is one way to increase the local involvement in tourism. One disadvantage in the Caribbean, is the seemingly lack of entrepreneurial spirit, so vital to job creation and economic growth (Shaw and Williams 1990). The initial economic organisation, and the division of labour within the region probably deterred the profit motive. In addition, the inflexibility of financial institutions, and the continued trend of maintaining the status quo regarding the division of labour, seem to be a hinderance to entrepreneurship.

Evidence of weak entrepreneurship categorically facilitates fragile, volatile, and inconsistent economic growth, which are seen in the Caribbean. The earlier economic activities in the region, in view of the political, economic and especially the social
process, have precipitated dependant habits on externalities (Brugluglio 1993, Dann and Potter 1994, Farrel 1983, Harrigan 1974, Potter 1993, Weaver 1988, Wilkinson 1987). Nonetheless, the Caribbean is in no way unique to dependency. Betram and Watters (1985), Milne 1992) and Kakazu (1994) cited evidences of external dependant economic behaviour in the Pacific. In order to advance, these economies have to be open, where the nations benefit from foreign investment, and due to small size, the economies must rely on externalities to gain access to a larger market place. Regional economic development to date has meant, an almost total reliance on foreign investment to facilitate the development of industry. In this case, the tourism industry is not atypical. Where tourism is viewed as a priority, governments have procured the means to develop the infrastructure to facilitate the industry. The Development of the superstructure was accomplished largely to the accommodate foreign investment in the industry. Local businesses were not in the position to develop the sector, due to lack of financial resources.

10.2 REGIONAL INTEGRATION

Services, including tourism, are parts of the tertiary sectors on all of the Caribbean islands, but manufacturing, agriculture and heavy industry dominate some economies. Anguilla, Antigua and Barbuda, Aruba, Barbados, the Bahamas, Bermuda, Bonaire, the British Virgin Islands, the Cayman islands, Montserrat, St. Barts, St. Martin/Maarten, and Turks and Caicos Islands are services based. Cuba, Dominica, the Dominican Republic, Grenada, Guadeloupe, Martinique, St. Kitts and Nevis, St. Lucia and St. Vincent are agricultural based. Curaçao, Jamaica and Trinidad and Tobago are manufacturing based. Of course, some overlapping is evident, for example, Barbados, the Dominican Republic have significant manufacturing sectors. Further, the Dominican Republic and Martinique, St. Kitts and Nevis and St. Lucia have viable services sector.
Nonetheless, culminating from smallness as mentioned before, the economies are constrained by limited natural endowments, small internal markets *ipso facto*, weak internal demand. Thus, capital formation and technological developments continue to suffer from economic and size constraints (Handel 1960, Robinson 1981, Kakazu 1994). Therefore, the only avenue that remains, whereby economic development and the benefits from the growing tourism sectors can be maximised is through Caribbean economic integration. Regional integration should encapsulate a built-in mechanisation for full political union (Farrell 1982, Hudson 1989), within a specified period. Regional integration would not result in the loss of autonomy of individual nations, instead, this independent control of domestic affairs, an extension of each island states' ministries within a regional commission would be more tenable. Cooperation among leaders of the Anglophone Caribbean will serve as a catalytic model, an envisioning strategic body, endeavouring to include eventually all of the Caribbean islands. Only then can attempts be made to remedy the disadvantages of economies discussed that have been fraught with problems of tradeable goods and services and low levels of economic development.

As was outlined in the previous chapter, the issues of economic viability and the ability to compete regionally, on a singular basis is virtually impossible, in view of the fact of size constraints (Briguglio 1993, Dolman 1982, and Dommen 1985). Small island economies cannot generate high output per acre in agricultural produce, due to landmass and technological limitations (Demas, 1965). This is not to say that agriculture should not be continued as an economic activity, indeed agriculture and fisheries must be nurtured, but higher levels of efficiency can only be attained within a regional approach.

The sugar industry, *ex ante* emancipation, was procured single mindedly and methodically, by clearing land with participation of large scale production, and of course with enslaved labour. The feasibility of the industry was rendered possible due
to large scale production, within a monopoly, where the Caribbean had the comparative advantage. Today, large scale production of any single crop on the individual islands is economically illusory. Collectively, large scale production would be economically viable, especially where the comparative advantage rests with the Caribbean. World markets for agricultural goods and raw materials are volatile, and Caribbean commodities due to their dependency on preferred markets (Bélisle 1983, Lee 1991), would suffer economic hardships. Moreover, the region must endeavour to feed itself, with less reliance on imports for food products, by the implementation of agro-industrial sectors, already evident in Trinidad and Tobago, Jamaica, and to a lesser extent Dominica. This can only be accomplished within a collective framework.

It is a fact that the world is pursuing services as the main economic sector, as the information age is paramount in world’s economics (Hindley 1988, Illveris & Phillipe 1993, Shelp 1984/5). The Caribbean is pursuing that avenue for economic growth, prima facie, greater emphasis is being placed by national governments on tourism and offshore finances. The pursuance of these activities is highly recommended, as they are vital to economic development, but more must be done to enhance efficiency and quality of service. Capital from foreign sources should be encouraged, especially from bodies such as the European Union, but international funds can only be effective where capital is also invested in private SMEs. These enterprises, such as hotels, are more likely to use local inputs (Milne 1992), than larger establishments. SMEs could be encouraged to utilise local and regional agricultural and industrial goods, to afford intersectoral linkages with the main economic sectors, thus minimising leakages from the economies. Capital from international governmental bodies is preferred, since the reliance on foreign ownership of SMEs would be reduced (Edye and Lintner 1992), thus curtailing potential enclaves. In the local environment, by limiting the number of international human resources, local resentments would be minimised. Local beneficiary of foreign capital however, should be channelled through Non-Governmental Organisations (NGOs). An annual report would be expected pertaining
to the use of funds, which should minimise its misuse. The issuance of capital to localised industries would increase the likelihood of Caribbean sustainable economic development.

It would be a disillusion to think that any island in the Caribbean can survive without foreign capital and investment however, as the gross domestic products (GDP) are low. Only when massive quantities of capital are injected into economies can economic growth become a reality, as was evident, based on the level of foreign investment received in the Newly Industrialised States (NIS) of the South-east Asian region (Edye and Lintner 1992). Investment from abroad can provide the resources to purchase the needed technology to increase production. Increased production would result in improved employment opportunities and salaries, by that, aiding in higher levels of local savings, which would spur capital accumulation, and possible lead to local investment in the tourism industry.

Forty years onwards, the tourism industry (hotels) in the Caribbean is still overwhelmingly owned and operated by expatriates (Eber 1992, Perez 1973, Richards 1983, Weaver 1988). The fundamental reason for this are the lack of resources, that is, monies to purchase and to operate these facilities, and where it is locally run, problems of quality and service may arise, as was the case from the primary research. There are limited knowledge and expertise, through the lack of education, to facilitate the advancement of local or regional nationals into managerial positions within the tourism industry. If the region embraces economic integration, where the factors of production - labour and capital are mobile (Brewster and Thomas 1967); including regional developmental concepts, envisaged by Sandals, a regional hotel chain, then where before singularly it was infeasible to pursue an economic activity, collectively
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it could be possible. The advancement of regional personnel to key post within upper management strata will serve to increase the region’s ability to accumulate capital, *ceteris paribus*, which is one major deterrent to local investment in capital-intensive projects.

Caribbean nations must not be short-sighted in thinking that tourism is not needed, or that some semblance of internationalisation within the industry is not necessary. The challenge however remains, with limiting leakages, by the minimisation of imports. The industry is expected to grow as the work week continues to shorten, and purchasing power increases. Tourism in the Caribbean is without exception, the main source of foreign exchange revenues (Eber 1992, Pearce 1992), which are needed to pay for the high import bills. Special emphasis on planning to meet future challenges is very important. Tourism is labour intensive, *ipso facto* creating employment for young Caribbean nationals, both directly and indirectly. No other region in the world is so reliant on one industry as the Caribbean, for economic livelihood (EIU 1992) of its people. The islands that have the highest unemployment rates could seek ways of eliminating this surplus of labour, through the regional expansion of the tourist trade. Caution against over dependence on any one economic activity or sector (Richards 1983, Wilkinson, 1987, 1989, Potter 1993), before sugar cane, now bananas, is applicable to tourism.

It would unwise to replace one monocrop with another. However, concentration on export production on a narrow range of crops and industries typify small states trade (Dommen and Hein 1985, Kuznets 1963), based on the principle of comparative advantage (Södersten 1972), and specialisation (Svennilson 1963) on one hand, and the reality of world trade on the other. Tourism is undoubtedly, the most likely option for Caribbean trade, but the region must find alternate means to diversify their economies. Tourism is dependent on external demand, which could be uncertain the proximity of the islands to North America, from which the largest demand is generated is a definite
advantage. The increase in direct access from Western Europe has aided in notable increases in European arrivals, and projected arrivals from this region were shown to have an upward trend, to over 12 million tourists, by the year 2000. However, it would only take a natural disaster for the islands to experience major loss of revenues, through reduce demand.

Economic diversity, within a regional forum will prevent the duplicity of resources. The consolidation of expertise, the minimisation of expatriate labour, and the aggregation of the factors of production, which would lend greater efficiencies. The region would benefit greatly from closer union, as all factors would move from a single unit into an aggregated one. The region could probably increase its influence on demand with an increase in buying power through sheer numbers. A larger economic unit whereby the factors of production are more effectively employed, lends greater productivity. Caribbean economies would realise higher GDPs, through higher levels of efficiencies, which would translate to better standards of living. There are about 30 million people in the Caribbean, excluding the American dependencies and Haiti. The magnitude of this number represents the volume in terms of, potential spending power. Consumer goods and regional agro-industrial products would have a ready market if regional demand is increased.

Regional integration will mean that the islands should not compete with each other, which is counterproductive, especially where tourism marketing is concerned. And, agriculture products can be produced cooperatively, where they would be more competitive on world markets. In addition, products that were otherwise bought outside the region, could be used by the tourist industry. Cocoa is a tropical plant, produced in the Caribbean, West Africa and Asia, its properties are used in many foods, including the making of the confectionery, chocolate. Chocolate bars are produced in Trinidad and Tobago and are competitive in quality to Nestlé, Cadbury and Hershey. If the company that produces chocolates realises economies of scale
through a regional production approach; and distributes its products through the regional markets, it could become a formidable competitor within the billion-dollar chocolate industry. Agro-industries on a regional scale would supply local needs, and export markets, but the products produced locally must be competitive to foreign produced goods. If foreign goods are preferred, then local goods would lose market share.

The Caribbean governments must view the world’s economy with sober pragmatism. Western Europe has realised that independently, they are unable to compete in the global marketplace. Although the original intent of the European Union was to promote cooperation between the member countries. What were the results of this objective glance into the future? regional integration in the form of the European Union (EU). The Caribbean has fewer natural endowments, far less capital formation, not to mention limited to no technological innovation. Thus, the only way forward with expedient urgency is an economic united Caribbean. Regional economic integration without bureaucracy would provide the necessary framework to ensure higher rates of regional economic growth, ipso facto improving the region’s development. Regional integration and increases in income should alleviate some of the problems found in the empirical study, such as poverty; and could increase provisions for better infrastructure, hotel facility and service.

Integration of the islands must be strategised with sound economic objectives, too often government officials pay ‘lip-service’ to this notion, whereby it is seen as a concept without real commitment (Brewster, Thomas 1967). The region must dispel inertia, earnestly aligning itself, extending the Organisation of Eastern Caribbean States (OECS) and the Caribbean Common Market (CARICOM), by forming an authentic economic community. A custom union is needed, with a spirit of democracy and fairness, within a market economy, with regulation where necessary. Regional
integration must be paramount on the governments’ agenda, the number one objective, as any other strategy spells lack of vision for economic development.

10.3 TOTAL RELIANCE ON SERVICES

The Caribbean future industries however, as the developed world, will continue to be in services. Its comparative advantage is in tourism, and it will continue to be an integral part of the service sector. The comparative advantage of the Caribbean in services is largely due to the relatively cheaper price of labour, and the natural endowments of most of the islands. It is not surprising that Caribbean foreign trade is dominated by one or two exports. Analyses of the Organisation of Eastern Caribbean States (OECS), the smallest of the Eastern Caribbean islands, (Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, with the British Virgin islands as an associate member) confirmed this dominance.

Anguilla, Antigua and Barbuda, St. Kitts and Nevis’ economies were ‘driven’ by tourism expenditure. Whereas, Dominica and Grenada’s economies were propelled by agricultural earnings (bananas, and bananas and spices respectively). Forecasting of the Caribbean islands’ tourism arrivals confirmed the rising reliance on services (tourism). In general, the forecasts suggested that arrivals will increase in the short to medium-term. On average, two-thirds of tourism demand originates in North America, mainly the US, but due to its declining trend (CTO 1990), the gap is increasingly filled by Western Europe (EU) arrivals. The challenge for the Caribbean lies in their ability to obtain the maximum economic benefit from tourism, and fostering the correct climate so that the industry remains viable.

The expediency with which the islands reduce the negative issues raised by the EU respondents, will determine the industry’s continued success. The abilities of the
islands to integrate and maximise intersectoral linkages, the greater will be the multipliers. A stronger income multiplier will translate into a stronger economic impact, which would precipitate higher levels of economic growth, and higher levels of economic growth will further the region's economic development process. The Caribbean islands tend to be, in general, flexible and adaptable, due to their openness (FT 1993). However, long-term planning, strategic decision making, and implementation must accompany that flexibility and adaptability, ipso facto replacing inertia.

Caribbean income multipliers are weak, ranging from 0.65 to 1.78 (Fletcher 1992), due to high imports, which continue to exacerbate the region's balance of payments deficits. The Caribbean's balance of payments largely seem to remain in a deficit position, mainly due to weak economic organisation of industry which result in large imports. The need for economic diversity was discussed at length in 1992, by Caribbean governments, who noted the need to pursue policies that will encourage food self-sufficiency; and the use of more local and regional manufactured goods, in attempts at reducing the balance of payment deficits. Individually the economies suffer from diseconomies of scale in production and technology, as costs per unit are high (Streeten 1993). Nonetheless, regional production of self-sufficient foodcrops and manufacturing activities working in tandem, could reduce marginal costs, and increase economic efficiency.

Attempts at industrialisation can only be seen in Jamaica, Trinidad and Tobago, and to a lesser extent on Barbados (Hope 1986). Macroeconomic problems result in the Caribbean having high unemployment on most of the islands, specifically those that are agrarian based. The Windward Islands, Jamaica, Barbados and the Dominican Republic suffer from high unemployment, as high as 29% in the Dominican Republic. There are limited economic alternatives for job creation, and means by which the poverty cycle can be broken. It is the higher incidence of unemployment that have
resulted in the empirical findings, of poverty, crime and security issues, and hostility in the foregone islands. Seers (1969:3), questioned development, and it's prospective concerning poverty, unemployment, and inequality. Almost 30 years later, the question remains unanswered. How is it that nation's GDP increases, and their citizens remain poor?

Cuba, Dominica, the Dominican Republic were noted, based on the empirical research, to be poor. Poverty in Cuba can be described where, although basic needs might be met, the level of material possessions are minimal. This is often true of economies patterned after left of centre, or socialism based political systems. The percentage of government spending was thought to reflect the government's attempt at combatting poverty issues. The empirical research could find no correlation between the level of government spending and poverty. Nevertheless, Cuba and the Dominican Republic spent six percent and three percent respectively, of its Gross Social Product (GSP) and Gross Domestic Product (GDP) on government consumption, in 1991. These figures compare unfavourably with the region's average (18%). In 1991, Dominica nonetheless, spent 25 percent on government consumption, a trend that has been almost constant throughout the 1980s. Yet, the empirical research pointed out that Dominica had poverty, however, in Dominica, extreme poverty is not apparent. Relative poverty, based on the region's standard, can be noted in Dominica, and general services to its indigenous groups need to be advanced (The World Bank 1994).

In 1991, Cuba and the Dominican Republic both had a high GSP and GDP, $15.20 million and US$7.30 million respectively. Meanwhile, per capita incomes remain low at US$1,050 and US$1,045 respectively, due to high populations, (seven million and 10.5 million), which indicated its uneven distribution of wealth. The Dominican Republic was noted by the World Bank (1994) to have extreme poverty, where 8% of children suffer from malnutrition. Further investigation into the Cuban and Dominican
Republic economies is needed to explain the anomaly between high GSP, low government spending per GSP, and poverty issues.

Jamaica and Trinidad and Tobago were not noted to be poor, based on the empirical research, as large groups of their population are relatively wealthy. Yet, the World Bank (1994) pointed out that in Jamaica, an estimated one-third of the population live below the poverty line, and FT (1993), noted that about 10 percent of Trinidad’s population live below the poverty line. In 1991, Jamaica had the lowest per capita income in the Caribbean, at approximately US$603.43, with GDP (among the highest in the region) of US$1.48 million. In 1991, Trinidad and Tobago’s GDP was approximately US$5.28 million, but its GDP per capita compares favourably with the region, at US$4,350. Nonetheless, based on their GDP, there seemingly are gross inequalities of wealth. The foregone could be explanations to show the underlying reasons that crime, security and hostility issues were detected in the empirical findings, in Jamaica and Trinidad and Tobago.

Barbados and Curaçao were found to have problems with crime, security, and hostility issues, yet poverty is not a factor on these islands. The modernisation thesis probably applies, suggesting that as nations advance economically, incidence of crime tend to increase. Additionally, in all of the islands that were mentioned, unemployment is high. Unemployment proved to have a positive correlation (an R² of 0.74), to crime and security issues. If high unemployment results in criminal behaviour, and unemployment causes poverty, then poverty is therefore a causation of criminal behaviour in the Caribbean. The hypothesis proved correct when one compared poverty to population size, as regression analysis detected a positive correlation (an R² of 0.90). The foregone islands all have relatively large populations; where Cuba (10.51 million), the Dominican Republic (7.3 million), Jamaica (2.4 million) and Trinidad and Tobago’s (1.3 million) large populations, which place considerable burdens on the social systems. In the absence of rapid economic growth and
development; redistribution of wealth through a good progressive tax system; and adequate social programmes, the ability to address some of the problems that plague these economies such as, high unemployment, poverty and criminal behaviour would not be accomplished.

Martinique and the French Caribbean are peculiar, where there is a ‘cruel paradox’, as each of these countries gets poorer, the citizens become more prosperous’ (Constant 1985). Social transfers from France make up an estimated 70 percent of their GDPs. Whereby the standard of living has improved, economic growth declines and unemployment rises. Emasculation where persons receive social benefits, but do not engage in gainful employment, where the lack of ‘self-worth’ is missing, precedes resentment. Gainful employment lends dignity, thus the DOMs could be considered a failed exercise of France’s foreign policy. It is not at all surprising that crime, security issues, and hostilities were problems directly relating to their economic development process.

Aggressive vendor hassling is undoubtedly the result of high unemployment as the empirical study indicated to be a problem in Barbados, Jamaica and Martinique, and to a lesser extent St. Lucia. Vendor hassling is an issue on these islands, and not surprisingly, crime, security and hostility were also problems. Indeed high unemployment and poverty, coupled with high populations and social discontent seem to precede these problems.

In some cases, problems of inflation exist for basic necessities, and uneven distribution of income aggravates the social quiet. The Caribbean economies however, by ‘developing’ standards are relatively prosperous. Challenges remain for the governments of the region to obtain higher levels of economic development, through sustained economic growth.
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The empirical research showed that Bermuda is considered to be expensive. Maintaining high tourism prices however, is a deliberate policy of the government, to limit tourism arrivals (FT 1993, McElroy and de Albuquerque 1992). It was thought that, curtailing of numbers could manage the product whereby overcrowding, and the damage to the natural and social environment could be curtailed. Aruba and Barbados were also seen to be expensive, largely because of cost push inflationary factors, based on the rising prices of the factors of production, as well as, sound fiscal management of the economies.

Human development through education and training is important *sui generis*, but it is now integral to the region’s personnel’s participation in the tourism industry. Regional capital investment, specifically at the private level, will aid in reducing the share of foreign ownership, therefore reducing the repatriation of profits and remunerations to the North. Local and regional participation should minimise the resentment that arises, due to the division of labour in the hotel sector in particular, specifically where top-level employment opportunities are concerned (Richards 1983). Trained personnel in the hospitality industry are lacking, due in part to limited access to tertiary education, both at the vocational and university levels. Investment in human resources is integral to the success of industries, nations and regions. Skills need to be nurtured in the professions, in vocations, and in entrepreneurial development (Echtner 1995). The lack of hospitality skills and training could be a causative factor to explain the research findings of lack of hotel facilities and services in Cuba, Dominica, the Dominican Republic, Grenada, Martinique, and Trinidad and Tobago.

Cuba and Dominica had the most acute problems of hotel facility and service, and are islands based predominantly on agriculture, and the BVI is mainly a yacht haven. Economic theory dictates that agrarian based economies tend to lag behind the secondary and tertiary sectors, in productivity, efficiency, and income generation. Additionally, economic development is retarded by constraints that are typical of island
economies. The main economic sector that has contributed to the more developed economies in the region, tourism development, is a more recent phenomenon on Cuba and Dominica. In Dominica, tourism is presently at the early stages of the product life cycle (McElroy and de Albuquerque 1992), and is basically regional travel, with a small interest in eco-tourism (Weaver 1988). Tourism is a revisited industry in Cuba, since its watershed, in 1959. The politics of Cuba prevent its full participation in international tourism, as the lucrative American market remains embargoed. The foregone outlines the lack of international tourism on either island, although EU tourists visit Cuba. As most hotels are locally owned on Dominica, perhaps standards have been set at the domestic, rather than at the international level (Kakazu 1994). Cuba’s economic development remains a problem, due to its lack of international participation, and lack of financial resources.

Grenada somewhat mimics Dominica, since attempts at economic development via tourism development are fairly recent. Grenada has made a committed attempt at diversifying away from the primary sector. Many of the hotels are locally owned however, hence problems of standards could stem from lack of awareness, and hotel education (Mathlin 1994). The Dominican Republic has the most hotel rooms in the Caribbean, with plans to increase the rooms to 25,000 (FT 1993). The overall criticisms made by 13.8% of the interviewed were centred around facilities looking out-of-place within the environment, and poor hotel service. This is probably part of the problem of the Dominican Republic’s facilities, a quality gap, between perception of guest, management and media imagery.

Trained, skilled personnel, coupled with an enterprising public, should result in the region gaining more control over the factors of production. In addition, international awareness, concerning accepted international standards of what ‘hotel facility’ should consist of, is germane to an international industry, such as tourism. The same logic should apply to the concept of service, based on an accepted international view, which
addresses the 'perception' gap, done by market research. Nevertheless, the embracing of the enterprising spirit, coupled with an international code of practice is needed in the tourism industry in the Caribbean. The success of Sandals, a Caribbean chain, can be said to have followed this code. It cannot be stressed enough how regional control of industry, specifically the tourism industry is a sine qua non, to minimise leakages, and increase the maximum economic benefit from tourism. This can only occur through education, training, public awareness, and principally local investment incentives.

The Caribbean generally offers a carte blanche portfolio of tax incentives to foreign investors, including the repatriation of profits, and the accommodation of a large expatriate labour force, which are major leakages from the economies. These are evident especially at the initial stages of tourism development. Wanhill (1986, 1994) argued and proved empirically, that granting incentives for investment is a leakage from the local economy. It is essentially a redistribution of local taxes to foreign investors. Taxes are leakages from the national income, including the issuance of tax holidays on investors profits, and the ability to repatriate all the profits result in double leakages from the national economy.

The high incidence of expatriate labour result in their incomes being sent abroad, another significant leakage from the economy. Expatriates are unlikely to save with local banking institutions which means that their savings cannot be included in capital formation, and cannot therefore be mobilised to be lent out to local businesses and for other ventures. Wanhill explained and showed that land and other grants are more economically feasible to the host communities. Caribbean governments are often ill equipped to negotiate with Multinational Corporations (MNCs), however increases in educated personnel with skills in adroit negotiations should result in changes. Additionally, a concerted effort of all Caribbean governments relating to this issue, would arrest this widespread use of too many tax incentives.
Caribbean governments ignore this type of exploitation simply to provide employment. There are however, many documented cases where companies ceased functioning after the tax holiday had expired (Potter 1992), which resulted in high unemployment and abandonment, which were epidemic problems during the 1970's. There needs to be attempts at facilitating only those companies that seem to have long term commitment, local involvement, and training schemes, as is evident by the Four Seasons in Nevis.

10.4 THE NEED FOR TOURISM LEGISLATION

The research problems are mostly economic related, as are infrastructure, crime and security issues and poverty. Hotel facility and service, and vendor hassling are issues that are directly related to the tourism sector. All of the islands in the Caribbean, without exception, depend on tourism for foreign exchange, and except Trinidad and Tobago, no country in the region could prosper without this industry. Yet, there are further benefits that can be gained by improving the Caribbean economies, through increases in tourism's efficiency.

The Caribbean tourism industry, as the rest of the world, is void of direct policy concerning the sector. This is not to adhere to the industry coming under inappropriate bureaucratic control, semantic hyperbola, rhetoric and dogma. Undoubtedly, industrial sectors must be free to function most effectively without too much regulation. Nonetheless, some clear guidelines, and some monitoring units should be in place to prevent abuse, and to reduce problems that inadvertently arise. The governments should therefore, set up a governing body to regulate the tourism sector, a type of Caribbean Tourism Policy Group (CTPG). This organisation should be regional, in order to benefit from economies of scale, and should be funded by the participating governments and answerable to them. Caribbean Tourism Organisation (CTO) is presently operating in a similar fashion, hence it would be advisable to include this
type of governing body under the auspices of CTO. This would minimise its set up time, and might deflect unnecessary debate.

The main function of CTPG would be to monitor tourism at all levels, and lobby for changes to improve the benefits that each island receives from the industry. The improvement of benefits should be one factor in reducing some problems that arose in this study. One example would be the monitoring of the islands' tourism tax, and the trail of benefits to the local communities and the industry. Tourism taxes such as room, departure, and service taxes should have a percentage earmarked to improve public services, such as roadways, telephone, electricity and water. The improvement of these services will not only facilitate the tourism industry, but will be beneficial to businesses and the citizens of the islands. The improvement of all government services, and communications can act as a catalyst to attract other services to the countries.

During the 1970s and 1980s, the government of Antigua and Barbuda committed funds to improve the telephone system on the island of Antigua. These improvements have not only benefitted the tourism industry, but also the financial industry. Additionally, there has been the introduction of offshore finances that almost totally rely on good telecommunications to function effectively. Satellite offices of American Express and Diner's Club have been introduced, as improved communication means efficient business transactions. Infrastructure improvement is categorically one of the most important function of government, as it has immediate benefits to industry.

Another function of the CTPG would be its effectiveness as a lobby group. In effect, this could bring to the attention of Caribbean governments, the need for new legislation pertaining to tourism in the region. The industry as a mass-market destination is over 40 years old, and except some loose planning, the sector has evolved largely on its own. The projections in the forecasting chapter of this treatise
have indicated that, many more tourists will descend on the shores of the Caribbean. The time has come to enact laws that are specific to the industry, especially where the environment is concerned. This is needed urgently specifically where environmental problems have become apparent, as environmental degradation puts the economies at risk. There has been recently, in the region as in other island destinations in the world (Vukonić 1994), the need for a possible environmental, or user tax, given the damage done to reefs by cruise ships, yachts, and divers (Caribbean Conservation Association 1993). As the tax is revolutionary, strong oppose from the culprits would be fierce. Nevertheless, the will by the governments, through the lobbying of a body such as CTPG, could ensure the passage of this type of legislation.

10.5 SUSTAINABILITY

Sustainability and environmental issues have become somewhat of a misnomer during the 1990s. More has been written and spoken about the subject that has actually been done. The definition of sustainability was caught up in a web of nomenclature and semantic idioms, where consensus has evolved. Therefore, sustainability implies that an island’s natural endowments should be exploited only if they are renewable. The definition continues to explain that, current use must be checked to ensure there remains available resources for exploitation by future generations.

Whereas Caribbean people are not the world’s polluters, based on their limited industry, conservation and recycling must become a part of the islands’ ethos. Governments must show leadership in this regard, therefore the short-sighted view of most governments regarding the seemingly non-function of mangrove swamps is another matter that needs attention. The approval of their destruction to facilitate tourism development is foolhardy, as this fails to view their purpose to the islands’ ecological systems. Mangrove swamps act as a natural buffer between the sea and the land, during potential tidal waves, as well as, acting as a natural habitat for sea-life.
The natural bio-diversity of the islands helps the continued rejuvenation of coral reefs, which acts as a breeding ground for sea life (Caribbean Conservation Association 1991).

Inshore fish-stocks have been depleted on most of the islands (FT 1993), mostly due to pollution. A division such as CTPG could lobby incessantly to have laws enacted to protect endangered species, as well as, devising a mandate to control the uses of the islands' natural resources (Vukonić 1994). Whereas some authors (Hudson 1986, 1987, Libicki 1988) have blamed tourism as the perpetrator of environmental degradation, preservation of the environment will enable the tourism industry's sustainability, and will dispel that claim. Indeed this should be acknowledged that, 'ecology is more important in tourism and environmental preservation than economy and philosophy of profit' (Libicki 1988:87). The continued erosion of the coastline will result in the eradication of the shoreline (beach), and after-all, the Caribbean's comparative advantage remains in 'resort' tourism. 'Resort' tourism relies mostly on fine beaches, therefore if destroyed, so would the industry. Tourism must be viewed as a long-term objective to aid in the viability of the islands' economies, and polices must be enacted to ensure that this advantage remains (Caribbean Conservation Association 1993, Holder 1979, 1988). Any attempts to circumvent that process must be combatted at all levels.

One way of protecting islands' environs is by zoning, 'defined for both the terrestrial and for the marine environments' (Vukonić 1994:10). These zones would include cultural, rural, urban and marine environs. The local peoples and their tradition should be preserved, to ensure that cultural-diversity in all its forms are protected. Exploitive ventures must be fulminated, thus preventing the climate of crime, insecurity issues, and the continued cycle of poverty. It is not enough to discuss sustainability without the inclusion of peoples. Moreover, the survival of peoples fosters inter alia creativity, innovation, and the preservation of ancient rites, rituals, folklore and medicine. There
have been attempts by some islands to establish natural heritage parks, such as the National Parks in Antigua and Barbuda, Barbados, Dominica, Jamaica, Montserrat, the Netherlands Antilles, and St. Vincent and the Grenadines (Weaver 1993). Nonetheless, more needs to be done especially where preservation of marine areas, shorelines and swamps are concerned. Moreover, the countries' well-being, be it physical, economical or social, rests exclusively on the jurisdiction of the governments.

The management of the islands resources must be of equal, or of more importance to economic gains. Sustainability means the exploitation of renewable resources, within the limitations of the environment. The ability of the governments to augment their productive usage with the limited natural endowments, and their fragile ecosystems, need realistic judgment. Realistic judgement will determine the degree of benefit any industry, mostly the tourism industry has contributed to the islands' economies.

10.6 THE FUTURE

The future of the islands indubitably points to closer ties with it neighbours, not just the Caribbean islands, but the greater Caribbean. Mexico's involvements in Caricom, and the signing of the Association of Caribbean States (ACS), in 1994, further attest to that processes. This is 'no longer a Caribbean option. It is a top priority, imposed by major world trends and policies' (Sir Sherlock 1992:53). Regional integration should act as a bridge whereby economic diversification occurs, as 'diversity is the key to development, but a diversity that is global and no longer local' (Connell 1993:142). Regional integration is necessary, if the region is to develop further, as the factors of production can be better organised.

The proximity to North America means that, tourism from the US remains a significant share of demand. The demise in demand from the US is a vexing problem and needs to be addressed. The region cannot afford to do nothing, as this market is quite
lucrative. Increased advertising and awareness is needed to maintain and sustain the industry, unless arrivals from the EU can compensate for the short fall. The North American demand has been falling over the present decade, largely due to the economic recession of the late 1980s, and the ‘See America first’ campaign advertised aggressively by the US tourist bureau. Simultaneously, the EU’s share has been increasing at rates as high as over 20%, in 1993 and 1994, in some Commonwealth countries. Arrivals are distributed largely across linguistic lines, with the UK visiting the Anglophone Caribbean, the French, visiting the DOMS, the Dutch visiting the Netherlands Antilles, and the Italians and Spaniards visiting the Hispanic islands. The Germans are the main significant new arrivals, with some favouring to the Hispanic Caribbean, but nonetheless, there is a notable German presence in the entire Caribbean. Forecasting of arrivals in all cases shows an upward trend to over 12 million visitors, in the year 2000.

10.7 FURTHER RESEARCH

The empirical research indicated that, crime and security issues, expense, hotel facility and service, infrastructure, poverty and vendor hassling are development issues in the Caribbean. They must be viewed separately. Some of the discussion in the earlier half of the chapter - foreign capital, dependency, and weak economic performance are attributal to these problems. Workable solutions such as measures to redistribute wealth, increase job creation, public relations awareness, and community participation could address these problems, and should be undertaken methodically. Development economists and policy makers should work in tandem to pursue policies that could challenge these issues. The preceding chapter outlined some policy instruments, which countries could use, in an attempt at reducing the problems that deter sustainable economic progress.
Infrastructure problems were most evident in Dominica, largely because of the non-existence of an international airport, and other tourism structures. As was derived from the OECS model, Dominica’s economy is agricultural based, hence resources were diverted to the upkeep of primary roads and port facilities (Sutton 1991), to aid in the transportation of bananas. The issue of bananas losing its place as a preferential access to the EU via Lomé, with the absence of an alternative lucrative industry remains a vexing problem for Dominica. Moreover, the US has put pressure on the EU, and the matter, in 1995, reached the EU court of justice, whereby the total demise of Caribbean banana trade seems evitable. There continues to be an urgent need for Dominica to diversify its economy, but its potential as a ‘mass-tourism’ destination is limited, due to topography and the lack of white sand beaches. There needs to be a regional effort to aid in the diversification of its agronomic sector.

In contrast, Antigua and Barbuda (mostly Antigua) have had tourism since the 1950s, and tourism developments leapt forward in the 1980s, with the building of additional tourism facilities and attractions. Yet, the roads were said to be in disrepair. Regression analyses did not detect significant regressors to determine the lack of ‘good’ roads in Antigua. The only probable cause would be that, the government chose to prioritise the upgrading of the telecommunications and tourism facilities, including the airport, at the expense of the roadways.

Additional research is needed on all of the above findings, including the problems that could be potential deterrents to future tourism development. Issues that need further exploration in the Caribbean, and indeed in any other tourism small islands, would be:

1. Are crime and security issues, and hostility likely to damage the tourism product over time? How can these problems be corrected, and solved?
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(2) Can further tourism development aid in the eradication of poverty and unemployment in the Caribbean?

(3) Would education aid in decreasing the size of the population, which would alleviate poverty?

(4) Will increases in education and training aid in the increase in 'service', and lend efficiencies?

(5) Will adherence to sustainable issues, such as the environment, contribute to tourism's longterm viability?

(6) Can Caribbean governments, in concert, disband the present practice of tax holidays and 'carte blanche' investment, for grants of land and so on?

(7) Will hotel facility and service improve as the level of tourism development improves?

(8) Could capital formation in the Caribbean be mobilised to invest in tourism ventures, such as the operation of hotels?

(9) Will regional integration and cooperation and a concerted management of the economies positively result in regional development?

(10) Will regional integration increase the tourism income multiplier?

(11) Will reorganisation of the region's agriculture aid in some semblance of food self sufficiency? and will this increase the tourism income multiplier?
(12) Can the region's economies diversify to other services?

Policy instruments, which countries could use in attempts at reducing the empirical problems that deter sustainable economic progress are urgently needed. The Caribbean might be seen, based on the aforementioned as a microcosm of problems, where little can be done to circumvent the continuance of these problems. The ability to address these issues must be fostered, and tenable solutions must be devised and implemented. Poverty elimination, education and training, and the empowerment of women are some areas that could be considered for improvement. The level of development in the Caribbean can be termed as somewhat developed, as the region is undoubtedly developing. Successful economies are evident, and the tourism industry has been the main catalyst for the development and success.

The findings suggest that the region's economic development from the EU prospective, portrayed a good overview of the overriding problems in the Caribbean. The empirical results, and the statistical analyses have offered an innovative approach to the study of the Caribbean. It has approached the problems of the region, not from the supply, as is often done, but from the demand. The study viewed almost entirely from the demand, pointed out development problems deduced from a representative sample. The use of secondary source economic data, to ascertain causality of the empirical problems was novel for a study on the Caribbean. Regression analyses to dissect the OECS economies, although not a unique technique of economic analyses, are unique for the OECS, since it has resulted in a more comprehensive view of the economies. Regression results of real GDP indicated the main economic sectors of the islands, and highlighted the weaker ones. The rate of investment and tourism expenditure were shown to be the bases of St. Lucia's economy, and agriculture was calculated to be the base of Dominica's economy. A similar exercise needs to be done on all of the remaining islands in the region, as time, resources, and accessibility prevented further study.
The empirical problems of a hospitality nature, such as hotel facility and service need further investigating, by gathering detailed research from the demand. Other development problems, including poor cuisine and lack of local culture also need further investigating. Economic development problems stemming from low levels of development or structural problems, such as crime and security issues, infrastructure, and poverty need further research. The underlying causes of these issues need to be studied on the islands. In addition, the hypothesis that tourism does not contribute maximum benefit the economies, in view of the high leakage content of the industry needs evaluating. There needs to be a complete empirical study on the economic benefits that regional integration could bring, with the successes to date of Caricom, and a highlight of its weaknesses. The successes of CTO need to be applauded, and its ability to galvanise the region's governments in utilising organisation of tourism needs to be commended. The inclusion of a legislative body within CTO, will act as a regional lobby group, to effect tourism legislation is needed.

The Caribbean today nonetheless, may seem to be an "underdeveloped" region, but it is among the most "western" of all countries outside the United States of America and The EU (Mintz 1961). The Caribbean's "westernisation" can be viewed not only geographically and politically, but historically. It is inter alia, the long relationship with Western Europe, its proximity to the USA, and the increase in television viewing that initiated (in the former), and maintained (in the latter), this "'westernisation". Extreme poverty that exits today, generally is confined mainly to Cuba and the Dominican Republic (although Haiti is indubitably the poorest). In general, on the other islands, the poverty situation is in many ways, no different from the relative poverty of other Western nations, and less acute than the poverty problems arising from the inner cities (except Jamaica) of the metropolis. Hence, one cannot term the Caribbean as economically deprived, as sui generis, it is one of the more prosperous regions of the world. Indeed, some of its islands' inhabitants enjoy relatively high
standards of living, and yet again, many are considered by the United Nations (UN) to be middle income countries, based on GDP.

The economies are developing, and the importance of the services sector, especially tourism, offshore finances and information technology will continue. Offshore finances are expected to give the impetus to an offshore financial trading (stock market), which will spur increases in the availability of capital, which would result in increases in national income. Undoubtedly, services growth will serve to shape the future of the economies, and effect their economic development process. The primary and secondary sectors should be nurtured, as the region's security relies on agronomic, where subsistence farming and fisheries are pivotal to basic needs requirements.

The region has at least two major threats nevertheless, the destruction of the natural environment (Dolman 1985), and drug trafficking (The Economists 1994, Oyowe 1992) from the South. Environmental management is a new discipline, but small islands are particularly vulnerable (Holder 1988, McElroy et al 1987, Vukonić 1994). In view of the fragile ecosystems of islands, the danger that environmental degradation would have on the region should not be taken lightly. Additionally, exploitation of the factors of production, without the concept of sustainability can no longer be tolerated. Sustainable development in concert, under the auspices of Caricom should be the goal of the region. Without this aim, the economies would remain more disadvantaged in the world economic system.

Chronic environmental damage will destroy the region's agriculture, fisheries, and tourism sectors. The region cannot afford to lose its pristine 'environment', even in the pursuance of economic development (Mikesell 1992). Drug trafficking will disintegrate the social framework, a problem that would stretch the already limited resources thin. Drug related crime has been known to occur, hence it is an area that needs urgent review, where circumvention would be the primary goal. The importance
of socioeconomic frameworks has kept these small communities sustainable over the last five centuries. The continued difficulty is the implementation of long-term plans that are viable, even if it would require short-term sacrifices, by addressing the current problems with renewed commitment to effect change.

The fostering of good leadership, and the will to set in motion unpopular decisions that would have long-term gains are distressing of governments. The importance of education is key, and the encouraging of skilled personnel returning to the region (Pastor and Fletcher 1992), as out migration continues to be a problem. It is true that, remittances do continue to alleviate poverty (The World Bank 1994), but the concomitance of the above factors are germane to aid in the region’s development.

It can be said unequivocally that tourism development has positively affected the Caribbean’s economic growth and development, but there needs to be alternative options to economic development, to reduce the reliance on one sector. Adherence to sound planning of the economies, and development policies will continue to facilitate the region’s development.

The problems discussed in this treatise might be further addressed if legislation, sustainable development, and economic policies were implemented on a regional level. Legislation appropriate to strengthen the tourism sector is vital, to maximise economic and social benefits. Increases in cooperation would give rise to regional integration, and should be a goal of the region (Farrell 1982, Potter 1992), where ‘successful solutions to problems of development in the Eastern Caribbean depend on greater economic and political integration’ (Hudson 1989:207). Integration should include the Greater Antilles in the Western Caribbean, by which resources are collective. Pragmatic ideas to aid in the regions economic development could be realised through the benefits that larger markets bring. Its success should reduce the problems, and increase the region’s economic efficiency.
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APPENDIX 1.1

Survey Questionnaire

Introduction

From Dome Sowerby, a PhD student at the University of Surrey. I am trying to determine tourists' attitudes in the Caribbean, and would be happy if you could spend some of your valuable time to complete this questionnaire.

Thank You.

1) How many vacations a year do you or your family take?

   a. three times yearly
   b. two times yearly
   c. once a year
   d. less than once a year
   e. can't afford vacations

If your answer is (e) stop here.

2) Where do you normally go for vacation?

   a. Western European countries
   b. The U.S.A.
   c. The Caribbean
   d. Australia/New Zealand
   e. Asia
   f. Africa
   g. other ____________________________

3) Have you ever been to the Caribbean?

   a. Yes
   b. No
If no, stop here, otherwise please continue.
4) Which island(s) have you ever visited? Please circle all the appropriate ones.

- a. Anguilla
- b. Antigua & Barbuda
- c. Aruba
- d. Barbados
- e. Bermuda
- f. Cayman Islands
- g. Cuba
- h. Curacao
- i. Dominica
- j. Dominican Republic
- k. Grenada
- l. Jamaica
- m. Martinique
- n. monsterrat
- o. St. Barthelemy
- p. St. Kitts & Nevis
- q. St. Lucia
- r. St. Vincent & Grenadines
- s. Trinidad & Tobago
- t. Turks & Caicos
- u. Virgin Islands (British)

5) Which island(s) did you consider to be the most enjoyable? Please number in order of preference:

(1) most enjoyable
(2) enjoyable
(3) somewhat enjoyable
(4) enjoyable with reservations
(5) least enjoyable

You may use a number as many times as you which.

[ ] Anguilla
[ ] Antigua & Barbuda
[ ] Aruba
[ ] Barbados
[ ] Bermuda
[ ] Cayman Islands
[ ] Cuba
[ ] Curacao
[ ] Dominica
[ ] Dominican Republic
[ ] Grenada
[ ] Jamaica
[ ] Martinique
[ ] Monsterrat
[ ] St. Barthelemy
[ ] St. Kitts & Nevis
[ ] St. Lucia
[ ] St. Vincent & Grenadines
[ ] Trinidad & Tobago
[ ] Turks & Caicos
[ ] Virgin Islands (British)

6) Were they enjoyable because of the following. Please circle all that applies.

- a. easy access from home
- g. shopping
b. accommodations       h. communication

c. restaurants/foods     i. local reception

d. cultural interests    j. Infrastructure

e. sports               k. transportation

f. ecotourism           l. other ______________
7) Would you choose the destination(s) again for your future holidays?

   a. Yes
   b. No

8) Please indicate next to each island(s) that you have visited the problems, and features that you consider in need of improving or need to be implemented into the tourism package to make your holiday more fulfilling.

   Anguilla

   Antigua & Barbuda

   Aruba

   Barbados

   Bermuda

   Cayman Islands

   Cuba

   Curacao

   Dominica

   Dominican Republic

   Grenada
9) If the above changes were implemented into the tourist package, would you choose the destination(s) for future holidays?
   a) yes
   b) no

10) Please make any further comments below. You may use additional paper and attach to this questionnaire.
11) Please indicate your age range.
   (a) 18-25 years old
   (b) 26-35 years old
   (c) 36-50 years old
   (d) 51-70 years old
   (e) over 70 years.

12) Please indicate your sex.
   (a) male            (b) female

13) Please indicate your marital status.
   (a) married        (b) single never married
   (c) divorced       (e) separated

14) How many persons are in your household?
    __________
    No of children under 16 years __________
    No. of adults __________

15) What is your occupation?
    Job title ________________________________
    Kind of work you do ________________________________

16) Please indicate the range of your household income?
    (a) 8,000 - 11,999 annually
    (b) 12,000 - 17,999 annually
    (c) 18,000 - 24,999 annually
    (d) 25,000 - 34,999 annually
    (e) over 35,000 pounds.

16a) For non-British, please give range in local currency.
17) What level of educational achievement have you attained?

(a) Primary education  
(b) Secondary education  
(c) college  
(d) Some University  
(e) University graduate  
(f) Post-Graduate  
(g) Doctorate

18) What country/province or country are you from?__________________________

Thank you very much.
### APPENDIX 1-2

**DEMOGRAPHIC PROFILE**

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<th>Percentage</th>
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<td>51-70 YEARS OLD</td>
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<tr>
<td>OVER 70 YEARS</td>
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<tr>
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<tr>
<td>5 PERSONS</td>
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</tr>
<tr>
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<td>12,000-17,999</td>
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</tr>
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<tr>
<td>25,000-34,999</td>
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</tr>
<tr>
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### EDUCATION

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### COUNTRY/PROVINCE

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<tr>
<td>Essex</td>
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### APPENDIX 2-1  
**EAST INDIANS IN THE CARIBBEAN**  
*after 1834*

<table>
<thead>
<tr>
<th>Location</th>
<th>Population</th>
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<tbody>
<tr>
<td>Trinidad</td>
<td>145000</td>
</tr>
<tr>
<td>Guadeloupe</td>
<td>39000</td>
</tr>
<tr>
<td>The Dutch Caribbean</td>
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<tr>
<td>Other Anglophone</td>
<td>238000</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>444000</strong></td>
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</table>

*Source: Horowitz 1971*
Appendix 3.1 (cont.)
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