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An analysis of cruise tourism in the Caribbean and its impact on regional destination ports

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AN ANALYSIS OF CRUISE TOURISM IN THE CARIBBEAN AND ITS IMPACT ON REGIONAL DESTINATION PORTS

By

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Saint Lucia

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In

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2007

Declaration

I certify that all material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The content of this dissertation reflect my personal views, and is not necessarily endorsed by the University.

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27th August 2007

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Abstract

Title of Dissertation: **An analysis of cruise tourism in the Caribbean and its impact on regional destination ports**

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This dissertation examines cruise tourism in the Caribbean and its impacts on the Small Island Developing States whose economies are all highly dependent on foreign injected capital. This dissertation develops profiles for the Caribbean and cruise operators so as to better understand the context within which this research is undertaken.

A cost benefit analysis is then done to establish the net impact of cruise tourism to the region. In that regard, an analysis is performed to determine the economic, environmental, security and social impacts of the industry on regional destination ports. Additionally, for islands with multipurpose berths, a further analysis is done to examine the impact of cruise tourism on the operations of liner shipping.

Noting the high level of concentration in the industry as well as the trend of cruise operators to build mega cruise vessels a further examination is done to ascertain the capacity of destination ports to accommodate such vessels and the balance of power between cruise operators and destination ports.

The dissertation concludes by acknowledging the positive impacts of cruise tourism but notes that this may easily be offset by the negative impacts of environmental degradation and the short-sightedness and lack of co-operation among destination ports. From the conclusions, five recommendations are thus made to develop the cruise tourism in the Caribbean in a sustainable manner where all major players can benefit in this collaborative effort.

KEYWORDS: Caribbean, Concentration, Cruise Operators, Balance of Power, Destination Ports, Highly dependent, Lack of Co-operation, Sustainable Tourism

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List of Abbreviations

ACCP	Assembly of Caribbean Community Parliamentarians
CARICOM	Caribbean Community and Common Market
CCJ	Caribbean Court of Justice
CCL	Carnival Cruise Lines
CEHI	Caribbean Environmental Health Institute
CLIA	Cruise Lines International Association
CSME	CARICOM Single Market and Economy
CTO	Caribbean Tourism Organisation
EBIT	Earnings before Interest and Tax
ECLAC	Economic Commission for Latin America and the Caribbean
EPS	Earnings per Share
FCCA	Florida Caribbean Cruise Association
GDP	Gross Domestic Product
IBIA	International Bunker Industry Association
ICCL	International Council of Cruise Lines
IMO	International Maritime Organization
INTERTANKO	International Association of Independent Tanker Owners
JMB	Jamaica Bauxite Mining
LCA	Life-Cycle Analysis
RCCL	Royal Caribbean Cruises Limited
RCI	Royal Caribbean International
SECA	SO_x Emission Control Area
VLCVs	Very Large Cruise Vessel
WTO	World Tourism Organisation

1 Introduction

1.1 Background Information

The Caribbean is the world's leading cruise destination. Its geographical location in a warm temperate zone, its strategic position relative to the US and its rich and diverse cultural heritage, makes it a must for any vacationer.

These islands are, however, all considered to be small island developing states, with fragile economies and ecosystems which make them very vulnerable to socio-economic and political developments in the world. Though, their natural resources can easily be adversely affected by environmentally degradation, the trend of cruise operators to design and market their vessels to compete directly with land-based resorts, appears to have gone by unnoticed. The magnitude of waste generated on a daily basis by mega-cruise ships, the high levels of congestion at heritage sites, the potential health hazards associated with gases such as nitrogen oxides (NO_x), sulphur oxides (SO_x), and carbon dioxide (CO_2) found in the exhausts of marine diesel engines, are hardly ever considered by destination ports.

Strangely enough, even when faced with falling market shares, destination ports in the Caribbean continue to invest in their port infrastructures as well as the development and enhancement of shore attractions. Tourism is a major GDP contributor for economies of destination ports. In recent times, cruise tourism, has gained increasingly more importance than land-based resorts.

Interestingly to note, are the demands that are sometimes made by cruise operators on destination ports, and the corresponding threats to remove destination ports from itineraries, if a desired action is not undertaken.

1.2 Significance of the study

It is hoped that this research will help clarify the possible reasons why scant regard is given to the environmental impact of cruise tourism in the Caribbean. Also, an explanation, into why destination ports seldom co-operate when it comes to matters related to cruise tourism, as well as, possible reasons why cruise operators in the region appear to have relatively more negotiating power than destinations ports.

The results of this research, though representing just the tip of an ice berg, should be used to formulate, develop and implement strategies to ensure the sustainability of the cruise tourism industry in the Caribbean.

1.3 Research Objectives

In seeking to perform an analysis of the above issues and to better understand the impact of cruise tourism on destination ports; this dissertation has the following objectives which serve as a guide to the research:

1. To determine and evaluate the economic impact of cruise tourism in the Caribbean;
2. To ascertain the balance of power between cruise operators and destination ports;
3. To evaluate the capacity of destination ports to accommodate future mega-sized cruise vessels;
4. To determine the economic and operational implications to liner shipping, of the priority berthing given to cruise vessels;
5. To assess the ability of destination ports to meet their obligations as mandated by MARPOL 73/78 and provide port reception facilities for ship-generated wastes?

1.4 Scope of the study

This study, whilst analysing cruise tourism throughout the Caribbean is primarily geared towards the islands of CARICOM that are engaged in cruise tourism. Contrary to the customary method of researching a sample then making generalisations about the population, this study does the opposite. Cruise tourism is researched in the context of the Wider Caribbean (the population) and the results are used to reinforce conclusions of a sample, which in this case, are the destination ports of CARICOM. Likewise, recommendations are developed specifically for CARICOM destination ports.

1.5 Research Methodology

Exploratory research was undertaken to determine the availability, content and relevance of data to the key issues emphasised in the objectives of this dissertation. Extensive use was therefore made of the books, journals, periodicals, articles, acquired from the library at the World Maritime University. Additionally, reference material was acquired from the Saint Lucia Air & Sea Ports Authority, was also used to gain insights into the operations and inter-relationships between cruise operators and destination ports, and among destination ports. Extensive use was also made of internet sources to build upon the information gained from secondary research.

To verify and check reliability of port info and to determine if any developments had taken place subsequent to that obtained in secondary sources, questionnaires were sent to thirty three stakeholders in the industry. The response rate was so dismal that the author had to resort to making telephone calls, to several Caribbean destinations, where personal interviews were conducted with Marine Pilots and other key port officials involved in the cruise sector.

Chapter 2 gives a regional profile of the Caribbean. Factors which have made the Caribbean the most sought-after cruise destination are examined and the region divided into five segments. The respective market shares and islands within the segments are identified.

Chapter 3 introduces the major cruise operators within the region and gives a useful insight into the market shares and representative agencies of Carnival Corporation & plc, Royal Caribbean Cruise Limited and the Star Group. An analysis is performed on their financial statements which were obtained through secondary research.

Chapter 4, through a cost benefit analysis, evaluates the direct and indirect impacts of cruise tourism and compares it with impacts generated by air pollution, ship-generated wastes, absence of port reception facilities, social and security impacts as well as the economic and operational impact on liner shipping caused by the priority berthing given to cruise vessels.

Chapter 5 evaluates the capacity of destination ports to accommodate very large cruise vessels. In this chapter, greater emphasis was placed primary research and the relevant information was acquired from marine pilots and other senior port officials in the various destination ports. The balance of power between cruise operators and destination ports were examined in the context of the level of concentration among cruise operators, the substitutability of destination ports, market representation, level of co-operation between destination ports, the dependency of destination ports on cruise tourism.

Chapter 6 gives a strategic analysis of cruise operators and destination ports whilst Chapter 7 draws conclusions and proposes recommendations for a more equitable and sustainable tourism industry in the Caribbean.

1.6 Limitations of study

In this research, only the major cruise operators with brands promoting mass tourism were considered. Recognition is given to upcoming leader MSC Cruises and the fact that alongside the mega lines operate smaller vessels which may make a more meaningful contribution to destinations ports than mega cruise vessels.

Substantial evidence was made available courtesy of Teri Shore, of Friends of the Earth International, showing where cruise vessels admitted to dumping waste in the

Caribbean. However, it was very difficult to determine if the waste was processed as per industry standards or if innovative devices such as Marine Sanitation Devices (MSDs) Type II or Advanced Wastewater Purification Systems (AWPSs) were operating as they should. Efforts to obtain further information from the Caribbean Environmental Health Institute (CEHI) were futile. CEHI, established by CARICOM in 1988, and with responsibilities for environmental impact assessment and environmental health information, had never done any studies on the environmental impacts of cruise tourism. Lastly, great difficulty was encountered in obtaining feedback from a number of cruise lines. This made it impossible to do a more comprehensive analysis on the financial standing of cruise operators since no industry bench marks were available for comparison purposes with their respective financial ratios.

2 The Caribbean-a regional profile

2.1 Historical Profile

The history of the Caribbean has been one shaped largely by the migration of people into the region from South America, Europe, Africa, Asia, and the colonisation by the Spain, England, France, Holland, Denmark and Swedish to a lesser extent.

The first inhabitants of the Caribbean were the Caribs and Arawaks, Amerindians who migrated from South America and who were mistakenly taken for Indians by Columbus. Thinking that he had arrived in India, he erroneously proceeded to call the region the West Indies, and notwithstanding that the islands were already inhabited, claimed a number of islands in the name of King Ferdinand and Queen Isabella of Spain.

The Spanish occupation of the Caribbean resulted in the enslavement of indigenous races in gold mines and agricultural estates. After their eventual decline and demise, they were replaced in 1501 by Negro slaves, first from Spain and then West Africa. The dominance of Spain in the Caribbean is adequately explained by Williams (1970) who stated that political climate in the fifteenth century was one which was congenial to discovery and overseas expansion. The presence of gold, sugar and slaves in the Caribbean represented an enormous accession of wealth and power.

Spanish dominance in the region remained largely unchallenged until the early 16th century when Spain's enemies in Europe, the colonial powers of the British, French and Dutch began to question that very dominance. One such person was Francis I, King of France who minced no words in voicing his protest when he said, "The sun shines for me as well as others. I should very much like to see the clause in Adam's will that excludes me from a share of the world! God did not create these lands for Spaniards alone" (Williams, 1970, pp. 71-72).

During the mid-1500s and mid-1600s they succeeded in eroding Spain's supremacy and went as far as encouraging and authorizing their citizens to attack Spanish merchant ships, fleets and ports (http://encarta.msn.com). Contrary to today, where the International Maritime Organization, with the backing of its member states have enacted resolutions to curb the illegal and often destructive act of piracy, Williams (1970) reports that the piracy during that period had the backing of colonial powers and had essentially become a feature of the national policy of Spain's enemies in Europe.

The 18th and 19th centuries were of particular significance to the Caribbean for it was a period where occurrences during that time had long lasting effects and played a critical role in shaping the region's history. Such occurrences include but are not limited to: the intensive rivalry between the British and French for regional supremacy; the introduction of sugar cane, the profitability of which resulted in all available lands being utilized for its cultivation and thus the preference to its exportation and the importation of food; the abolition of the negro slave trade in 1807; the commencement of migration into the Caribbean by Indians in 1838, Chinese in 1859, and Japanese in 1894; and the Spanish-American War of 1898 which put an official end to Spanish power in the Caribbean (Williams, 1970).

2.2 Regional Resources

Until the mid-20th century many Caribbean Islands, with the possible exception of Jamaica and Trinidad and Tobago, relied heavily on their agricultural sectors for economic growth and sustainability (http://encarta.msn.com). With globalisation and its accompanying trade liberalisation, between nations and within economic blocks,

the guaranteed market given to the agricultural products of many islands were adversely affected.[1] As a result, these islands diversified into tourism and relied less on the dwindling returns of their agricultural produce. Even Trinidad, with its petroleum, asphalt and natural gas and Jamaica with its supplies of iron ore and bauxite have followed suit and diversified into tourism as well.

In that regard, the term regional resources refer to all types of resources used for the promotion and development of the tourist industry and particularly, cruise tourism. Such resources would include attributes derived from being located in a warm temperate zone with breathtaking coral reefs, lush vegetation, spectacular beaches, clear blue seas, volcanic remains, rugged mountains and indigenous species of birds, reptiles and marine life. The islands, which were formed by partially submerged mountain ranges, volcanic activity and some from coral, which emerged from the ocean (http://encarta.msn.com), lie in close proximity to each other and are affectionately considered by many, as a tropical paradise with sunshine all year round. According to Moonie et al (1998, p. 153) one of the strong points of the Caribbean is the large number of accessible islands, which allows cruise ships to offer their passengers "port-a-day" cruises without having to travel at high speeds to arrive at the next port of call.

In terms of institutional resources, the Caribbean Community and Common Market (CARICOM) is the most notable and recognized in the region. Comprising of 13 Member States and 5 Associated Members, the political leadership of CARICOM, in the aftermath of September 11, 2001[2] joined forces with regional and international tourism bodies to develop an emergency response to save from ruin, the Caribbean's most vital economic sector, the tourism industry. On 1 January 2006, the CARICOM Single Market and Economy (CSME) was established thus enabling member states to benefit from greater negotiating power, pooled resources, improved ability to recruit skilled workers, source inputs from resource rich locations, and achieve

[1] World Trade Organization ruling against the preferential treatment given to Caribbean bananas on the European Market resulted in the loss of jobs to many farmers who could not compete with US (Chiquita) owned farms in Latin America.

[2] This date signifies the launching of deadly and devastating attacks on New York City, and Washington, D.C., USA

greater economies of scale thus enhancing its external competitiveness (www.caricom.org).

2.3 Political Climate

The islands of the Caribbean are very politically diverse as a direct consequence of their colonial history. Williams (1970, p. 70) posit the view that the Caribbean's history was conceived in international rivalry which was reared and nurtured in an environment of power politics. It would hardly be surprising, therefore, if one expects the political climate in the region to be one of instability, characterized by turmoil and an environment, which is not conducive to business, especially that of cruise tourism.

On the contrary, when one thinks of the Caribbean, the first thing which comes to mind is an atmosphere of peace and tranquillity. Although the region comprises 13 independent nations and a number of dependencies, territories, and possessions of France, the United Kingdom, the United States, the Netherlands, and Venezuela (http://encarta.msn.com), they all coexist in warm and cordial relations between and within their respective boundaries, worlds away from political instability and its associated ills.

Even within the confines of CARICOM political fragmentation exists. However, as illustrated by Hanratty (1989), most islands inherited strong democratic traditions and parliamentary systems of government that were patterned after the Westminster model. Furthermore, to ensure that democracy and political stability were entrenched in the region, CARICOM, at its 10th Conference of Heads of Government agreed to the establishment of the Assembly of Caribbean Community Parliamentarians (ACCP). This effectively gave the parliamentary opposition in the respective islands, an opportunity to make their contribution to the Community's decision making process (www.caricom.org). Additionally, Caribbean leaders have expressed great opposition to the establishment of a regional defence force on the premise that such a force might eventually threaten the very democracy it was established to protect (Hanratty, 1989).

2.4 Home and Destination Ports

There are basically two types of cruise ports, which Canamero (2005) identified as Base or Home Ports and Way or Destination Ports. Home ports are the beginning and termination nodes of a cruise and provide key logistical services to cruise vessels, their passengers and crews. They are often regarded as one of the key players in the cruise industry. Conversely, destination ports are more oriented towards the provision of tourist attractions and would plan and coordinate a variety of excursions to coincide with the vessels' stay in port.

Monie et al (1998, pp.177-181) identified two categories of port selection criteria (Table 1) used in the Caribbean to determine whether a destination should be included on a ship's itinerary. These attributes, when combined with the destinations image, form what is referred to as the intrinsic value of the destination. They, however, emphasize that having a high intrinsic value does not necessarily mean the automatic selection of a port, especially if the location of that port does not allow it to be visited within the time constrains of the cruise.

Table 1: Port selection criteria

Port-related attributes		**Island-related attributes**			
AA	accessibility of the port	BA	beaches and water sports	BJ	special attractions
AB	berth availability	BB	cultural diversity	BK	sports facilities
AC	berthing facilities	BC	popularity of the destination	BL	tourist information
AD	passenger reception facilities	BD	friendliness of locals	BM	tourist safety
AE	ports dues/head taxes	BE	local transport	BN	uniqueness
AF	reliability of sailing schedule	BF	political stability	BO	weather conditions
AG	smooth immigration process	BG	restaurants/bars		
AH	tender service	BH	shopping		
AI	vessel security	BI	shore excursions		

Source: Monie et al, 1998, p178.

Conversely, when it comes to home-port selection, the port-related attributes in Table 1 are of equal importance. This is because of the ever increasing size of cruise vessels, security considerations and the expressed need of cruise lines to control their costs. However, as a result of the array of logistical activities undertaken at home ports, other factors must also be given consideration. Such

factors include the availability and cost effectiveness of airlift, vessel support and provisioning facilities, availability of hotel accommodation, efficiency and effectiveness of transferring large numbers of cruise passengers between air and cruise terminals, and crew recreational facilities (Monie, Hendrickx, Joos, Couvreur, & Peeters, 1998).

The major home ports for the Caribbean are Miami, Port Canaveral, and Port Everglades/Fort Lauderdale on the Florida coast and the port of San Juan, Puerto Rico[3] located in the Caribbean (G. P. Wild Limited, 2006, p. 57). Coincidentally, the Florida home ports are ranked among the top five cruise destinations in the world, with Miami and Port Everglades being ranked as number 1 and 2 respectively, and Port Canaveral as number 4 Wild & Dearing (as cited in Gibson, 2006).

Prior to 9/11, in order of priority, the top four preferred destinations in the Caribbean as illustrated in Figure 1 were the Bahamas (23%), St. Thomas (20%), Puerto Rico (14%), and Cozumel (13%). This point is substantiated by Monie et al (1998, p.155) who indicated that in 1996, the four leading destinations were the Bahamas, the US Virgin Islands (mainly St. Thomas), Cozumel (Mexico), and Puerto Rico (mainly San Juan).

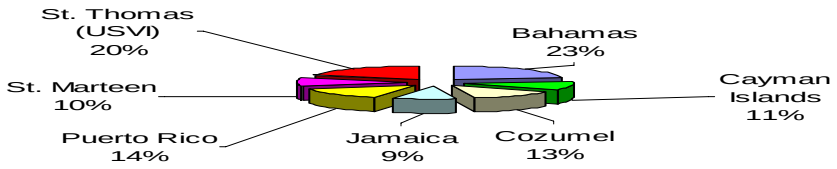

Figure 1: Compound Share of Caribbean Market from 1990-1999
Source: Own compilation from Wild, 2006, p80 & WTO, 2003, p142

The fear of flying in the aftermath of 9/11 and the expressed desire of North American passengers to cruise closer to home resulted in the establishment of several homeports along the US Gulf Coast. This had the dual effect of reducing the market share of major home ports of Miami, Port Everglades, and Port

[3] Puerto Rico, the fourth largest of the Caribbean archipelago, is a U.S. commonwealth (http://encarta.msn.com)

Canaveral and gave cruise operators the opportunity to develop new cruise itineraries in the Western Caribbean (G. P. Wild Limited, 2006; Peisley, 2006).

The total number of passengers visiting the islands in Figure 1 from 1990 to 1999 (47.4 million) increased by over 10 million for the period 2000 to 2004 (57.6million). Figure 2 illustrates a movement away from the traditional destinations of Puerto Rico and St. Thomas, whose shares decreased by three and four percentage points respectively, in favour of Cozumel, which as a direct impact of 9/11, experienced an increase of six percentage points. The growth of Cozumel is positively correlated to the increased home-porting at the Gulf ports (G. P. Wild Limited, 2006).

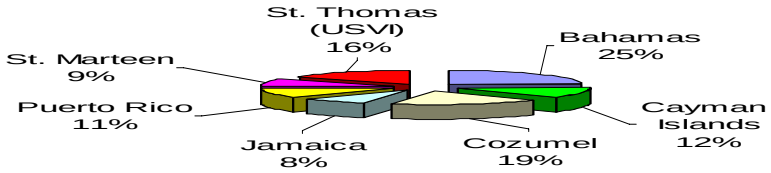

Figure 2 Share of Caribbean Market from 2000-2004
Source: Own compilation from Wild, 2006, p80 & WTO, 2003, p142

2.5 Market Segmentation

Monie et al (1998) divided the Caribbean into four segments: the Western, Eastern, Southern and the Deep Caribbean. They included the Bahamas as a fifth segment due to their importance and proximity to the Caribbean market. It must be noted, that the Bahamas have a much closer relationship with the Caribbean than mere proximity to the region and actually became a Member State[4] of CARICOM on 4th July 1983 (www.caricom.org).

[4] The Bahamas is a member of the Caribbean Community but not the Common Market

Table 2 Geographic segmentation of the Bahamas and Caribbean cruise market

Bahamas	Western Caribbean	Eastern Caribbean	Southern Caribbean	Deep Caribbean
Freeport Nassau Coco Cay * Pleasure Is*. Princess Cays* Royal Isle*	Cayman Islands Cancun Cozumel Jamaica Key West, (Cuba)	Antigua, British Virgin Islands, San Juan, Saba, St. Barts, St. John, St.Kitts & Nevis, St. Maarten, St. Thomas, Virgin Gorda, Labadee*, and Serena Cays*	Barbados Dominica Guadeloupe Martinique St. Lucia, St. Vincent Princess Bay*	Aruba, Bonaire, Curacao, Cartagena, Grenada, Isla de Margarita, La Guaira, Panama Canal, Puerto, Cabello, and Trinidad & Tobago
		Home Ports		
Miami	Miami, Montego Bay, and Tampa	Miami and San Juan	San Juan, Miami, and, Barbados	San Juan, Aruba, and Montego Bay
		Cruise Duration		
1-day 3-days 4-days	4-days 7-days	7-days 10-days 11-days	7-days 10-days 11-days	7-days 10-days 11-days

* Private out-Island

Source: Monie et al, 1998, p161, (Original source: William S.A. Da Costa Gomez, prepared for the Sint Maarten Port N.V., Sint Maarten Cruise Tourism Action Strategy. P.15)

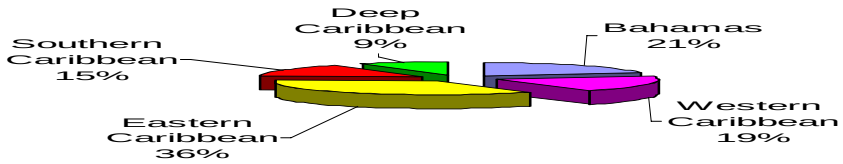

Figure 3 Market Share of the Bahamas and Caribbean Cruise Market from 1986-1996
Source: Monie et al, 1998, p174

During the period 1986 to 1996, as is depicted in Figure 3, the Eastern Caribbean was the preferred Caribbean destination followed at a considerable distance by the Bahamas, Western, Southern and Deep Caribbean respectively. Collectively, during that period, the Deep, Southern, and Eastern Caribbean represented the largest market share of cruise passengers.

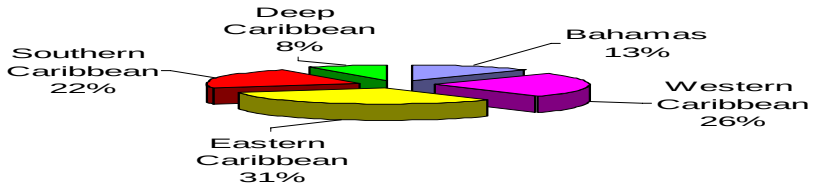

Figure 4 Market forecast of the Bahamas and Caribbean Cruise Market from 1997-2004
Source: Monie et al, 1998, p174

Figure 4, when compared to Figure 3, shows the Western and Southern Caribbean segments experiencing significant growth at the expense of the Bahamas and Eastern Caribbean destinations. The possible reasons for these developments according to Monie et al (1998) were hurricane damage to Eastern Caribbean ports, which would increase market share in the Southern Caribbean from 15% to 22%, request for new itineraries by repeat passengers, and a high-profile marketing campaign currently being undertaken by the western port of Cozumel. Additionally, according to Monie et al (1998) the creation of a 4-day Western Caribbean itinerary would have profoundly affected the Bahamas and result in a drop of market share from 21% to 13% as illustrated in Figure 4.

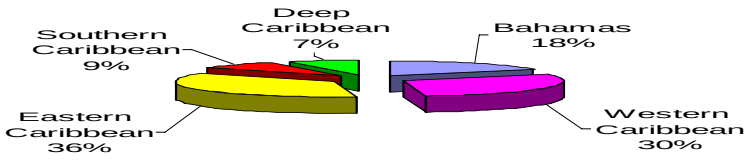

Figure 5: Market Share of the Bahamas and Caribbean Market from 1997-2004
Source: Own compilation from Wild, 2006, p80 & WTO, 2003, p142

There is no way 9/11 or its impact on the cruise industry could have ever been foreseen. Fear of flying adversely affected San Juan as a home port and, as depicted in Figure 5, consequently led to the erosion of the Bahamas, Southern and Deep Caribbean's market share in favour of the Western Caribbean ports, which were regarded as the most convenient cruise destinations. The most noticeable change was the fall in the Southern Caribbean's market share by 6% rather the forecasted increase of 7% shown in Figure 4.

2.6 World Ranking

From its discovery during the colonial era; as a generator of economic wealth to its colonial masters, to its rediscovery during the 20th and 21st centuries as a tropical paradise, the Caribbean has always been the world's most sought after destination. The modern concept of the cruise grew up around Miami as a base port, North

American passengers and the islands of the Caribbean as destination ports. Since that time, the Caribbean has maintained its position as the most preferred destination in the world, and is seen to have consolidated that rank (Figure 6) in the years following the terrorist attack of September 11, 2001 on New York City (Gibson, 2006; Monie, Hendrickx, Joos, Couvreur, & Peeters, 1998; Peisley, 2006; Wilmsmeier, 2006; WTO, 2003)

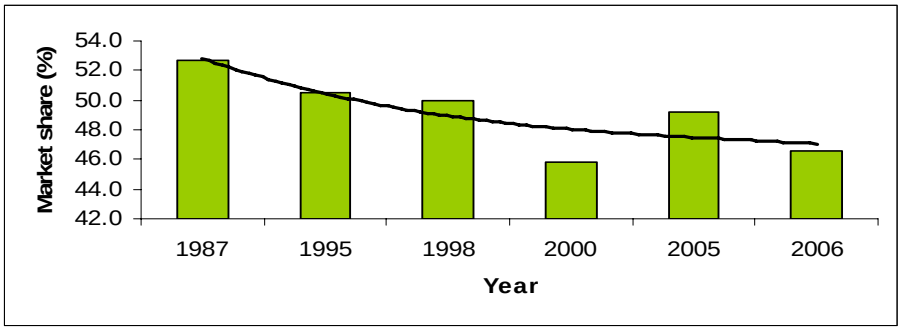

Figure 6 Combined World Cruise Tourism Market share of the Bahamas and the Caribbean.
Source: own figure based on data from study WTO 2003 p. 134, Monie et al, 1998, p, www.f-cca.com

Prior to 2001, as illustrated in Figure 6, the Caribbean gradually began losing its market share of the world total cruise market and experienced a reduction from 52.7% in 1987 to 45.8% in 2000. Some of the reasons for this decline have been attributed to the transfer of the Caribbean cruise experience to other world locations, changing demography and tastes of cruise passengers, and the wearing off of the region's novelty. This downward trend was however reversed in the aftermath of 9/11, but as Americans slowly began to recover from that traumatic event, the gradual loss of market share continued, as is evident in 2006.

2.7 Chapter Analysis

The islands of the Caribbean have been very successful, not only in making the transition from agricultural to tourism-based economies, but also in ensuring that the region's intrinsic value was sufficiently high to keep it as the world's premiere cruise destination.

The globalization of the Caribbean cruise experience as well as the changing demography of passengers has from 1987 resulted in the steady decline of the

Caribbean's market share and had it not been for the events surrounding 9/11 would probably have had a smaller market than what exists today.

Terrorism, and in particular acts of terror against the United States, have had adverse and contractive effects on the cruise industry. Though the Western Segment of the region appears to have benefited from 9/11 (Figure 5), this event has had the following effect: it has driven cruise operators to realise the high risks associated with depending too heavily on the North American market[5] and as a means of risk minimization, they have intensified efforts to diversify their destinations by working towards the continued globalisation of the North American cruise experience (WTO, 2003). This development, as well as the fading novelty of the region, will see the continued erosion of its market share irrespective of the gains made after 9/11.

[5] In 2000, North Americans accounted for 2/3 of world cruise demand (WTO, 2003).

3 International Cruise Operators

3.1 Operator Profile

The main drivers behind cruise tourism are the cruise operators and in the Caribbean as well as worldwide, the major operators are Carnival Corporation & Plc, Royal Caribbean Cruises Ltd, and the Star Group.

Carnival Corporation was initially launched as Carnival Cruise Lines in 1972 and became a public company in 1987. It is the world's largest cruise company and is well-known for its multi-brand approach for serving its diverse markets. It is the parent company of AIDA Cruises, Carnival Cruise Lines, Costa Cruises, Cunard Line, Holland America Line, Ocean Village, P&O Cruises, Princess Cruises, P&O Cruises Australia, Seabourn Cruise Line, Swan Hellenic, and Windstar Cruises[6].

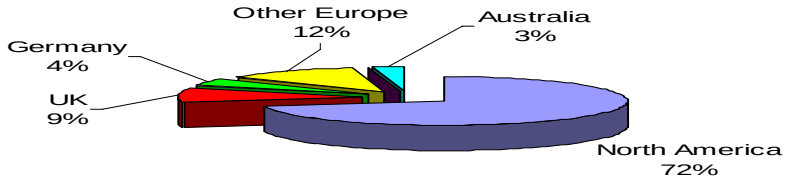

Figure 7 Geographic Distribution of Carnival Corporation & plc – end 2005
Source: (G. P. Wild Limited, 2006, p. 87)

[6] In 2006, Windstar Cruises was sold to Ambassadores International Inc. for US$100 million

Figure 7 reveals that Carnival operates on a global scale with 72 percent of its business based in North America, 25 percent in Europe and 3 percent in Australia. The globalization of the company's operations was enhanced when it acquired P&O Princess Cruises in 2003; a strategic move which assisted the company in diversifying its risk and relying less on the North American market. The effectiveness of this diversification strategy is illustrated by the reduction in revenue earnings from their main market from 75 percent in 2002 to 59 percent in 2004. In 2005, (Table 3) fifty six of its seventy nine ships representing 78 percent of its total carrying capacity operated in the North American market (Mathisen, 2005, pp. 18,24 &100; Peisley, 2006, p. 34; WTO, 2003, pp. 64-76).

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Royal Caribbean Cruises Ltd. (RCCL) is the world's second largest cruise company with a total of 5 brands. It was launched in 1970 as Royal Caribbean Cruise Line and became a publicly traded company in 1993. In 2005, the majority of this company's fleet was based in the Caribbean and RCCL owned three brands with 30 ships and an approximate carrying capacity of 3.1 million passengers. The unveiling of the new brand Azamara Cruises in May 2007 signified a radical change from the company's single global brand strategy. RCCL, who now appears to be adopting Carnivals' multi-brand approach, was accredited in 2006 as having the largest cruise vessel in the world *viz*. Freedom of the Seas (Mathisen, 2005, pp. 18,109; Miller, 2007a).

The Star Group consists of 3 brands, which had (in 2005) fifteen ships with a combined carrying capacity of 1.3 million passengers. It is the third largest cruise company in the world. Similar to Carnival and RCCL, the majority of its fleet operates in the North American Market with 2 brands having between them 79 percent of the Group's capacity. From its inception in 1993, Star Cruises operated predominantly in the Asian market but in 2006 a decision was taken to operate one vessel in the Mediterranean for the summer of that year (Mathisen, 2005, pp. 18,24 &107; Peisley, 2006; WTO, 2003).

The key players identified above are responsible for globalizing the Caribbean cruise experience and the subsequent revolutionization of the cruise industry. The emergence of mega lines in the cruise industry, consolidation and high levels of concentration, gave rise to economies of scale as well as economies of scope. Economies of scope, according to Jones and Hill (1998), are realised when two or more business units share resources and thus benefit by investing less in the shared functions. Such cost savings had a downward effect on the cruise related costs and subsequently made cruising cheaper and more affordable to a wider cross section of the global society.

3.2 Market Share

In 2005, the three top operators as illustrated in Table 3, had a combined share of 81.4 percent of the worldwide cruise market with Carnival Corporation having 48%, Royal Caribbean Cruises with 23.6%, and the Star Group with 9.8%. With regards to the North American Market, which serves the Caribbean, the combined market share was 90.1% with the following distribution: Carnival Corporation 49.9%; RCCL 30.3%; and Star Group 9.9% (Mathisen, 2005, p. 18 & 24).

Table 3: Largest cruise companies worldwide and in the North American Market-2005

Cruise Company	Ships		Capacity		Market Share	
	Worldwide	North America	Worldwide	North America	Worldwide	North America
Carnival Corporation	79	56	6 357 438	4 971 976	48.0%	49.9%
RCC	30	28	3 127 294	3 021 550	23.6%	30.3%
Star Group	15	12	1 296 800	985 200	9.8%	9.9%
Summary	**124**	**96**	**10 781 532**	**8 978 626**	**81.4%**	**90.1%**

Source: Compilation of various tables in Cruise Industry News 2005, p18, 24

Carnival Corporation & plc has the largest market share worldwide and in the North American/Caribbean Market. The company's huge investment in marketing and advertising has been singled out as one of the key elements for its rapid growth. In 2005, with a total of 12 brands[7], the first and largest being its very own, 79 ships and a world wide capacity exceeding 6.3 million, Carnival was considered the

[7] Carnival Lines is the first and largest brand in the fleet.

largest cruise company in the world. During 1989 to 1999, five brands were added to its fleet and an additional six were obtained through the merger with P&O Princess plc in 2003. In terms of number of ships, capacity, and market share, Carnival is followed at a considerable distance by RCCL, which merged with Celebrity Cruises in 1997, and the Star Group, which acquired Norwegian Cruise Line\Orient Lines in 2000. Carnival's market leadership is well established and not even the combined market shares of RCCL and Star Group are able to topple it from its position of dominance (Mathisen, 2005; Peisley, 2006, p. 34; WTO, 2003).

The costs associated with tonnage acquisition, the developmental and marketing aspects of running cruise vessel operations including fuel consumption, and home and destination ports charges, can be quite phenomenal. This, as well as the fierce competition which exists within the cruise industry, has prompted cruise operators to ensure strategic initiatives are implemented for effective cost control. As a result, the industry has become highly consolidated as is evident in Table 3 where Carnival Corporation, RCCL and the Star Group have combined market shares exceeding 80% and 90% of the worldwide and North American markets respectively. The extent of market concentration is easily detected in Table 3 when one realises that the top two operators together control more than 80% of the North American Market. The predominant method of growth within the industry has been that of mergers and acquisitions. The most significant merger to date has been between Carnival Corporation and P&O Princess plc, to form Carnival Corporation & plc.

3.3 Financial Performance[8]

A financial analysis of a company and/or its competitors normally gives an excellent indication of the effectiveness of a company's strategy, the efficiency with which this strategy is executed and suitability of its organizational structure. The 2000-2004 accounting data given for the world's three major cruise operators (G. P. Wild Limited, 2006, pp. 97-102) will thus be used to obtain an insight into the operations of these three companies.

[8] This section is based on an analysis of Appendix A

3.3.1 Explanation of ratios

As illustrated in Appendix No. A, the financial ratios have already been calculated hence, before attempting to do an analysis a brief explanation of their significance is given below:

- **Profitability ratios**: these ratios measure the long-term solvency of a company and are good indicators of the efficiency with which a company's resources are used.
- **Liquidity ratios:** gives an indication of how easily a company is able to pay its current liabilities should they become due.
- **Efficiency ratios**: indicate how efficiently a company utilizes its assets.
- **Financial leverage/gearing ratios**: an indication of the long term solvency of the company. The higher the gearing ratios, the more critical is the company's financial situation and the more vulnerable it is to bankruptcy if sufficient profit cannot be made to cover its principal and interest obligations.

3.3.2 Carnival Corporation

In 2004, one year after its merger with P&O Princess plc where it obtained an additional six brands to its portfolio, Carnival Corporation experienced about 123% increase in sales over its sales figure of US$ 4.37 million for 2002.

- All computed **profitability ratios,** with the exception of earnings per share, showed a decrease from 2000 to 2003 but started increasing from 2004 onwards. Again this was a result of increased sales from the aforementioned merger. Earnings per share, the only ratio to have steadily increased during the review period stood at over $2 for the first time in 2004 and increased to just under $3 in 2005.
- **Liquidity ratios** steadily increased from 2000 to 2004 but declined to 2000 levels in 2004. This is because current liabilities were increasing at a faster rate than their current assets. For example, in 2004 and 2003 current liabilities were $5m and $3.3m and when compared to the same period current assets stood at $1.7m and $2.1m respectfully. Prior to the merger (2002) the company was much more liquid with current liabilities standing at $1.6m compared with current assets of $1.1m. Current assets are therefore insufficient to pay current liabilities should they become immediately due.

- **Gearing ratios:** These have fluctuated from 2000-2004 reaching a high of 65.2% in 2003 and a low of 45.4% in 2002. Currently, more than 50% of the company is financed by debt. This is a significant reduction from 2003 levels which, as previously mentioned was 65.2%. As is evident in from 2003 onwards, over 12% of the company's profits (EBIT) are being used to pay interest on long-term debt.

3.3.3 Royal Caribbean Cruises Ltd

Steadily increasing sales from 2000-2005 were seen by Wild (2006) as a result of improved trading conditions arising from increased demand for cruises.

- The computed **profitability ratios** have fluctuated from 2000 to 2003; however, 2004 figures show them reaching 2000 levels. Earnings per share, which steadily decreased from 2001, were in 2004 at 2000 levels of over $2. Figures for 2005 showed a remarkable increase to over $3. The improved profitability of RCCL signifies that the company became more efficient in the allocation and distribution of its resources. This, it is assumed, is particularly so in light of the increased dominance of Carnival Corporation & plc following its 2003 merger with P&O Cruises plc.
- **Liquidity ratios** have remained constant from 2002 at .35; however the ratios still indicate that the company has insufficient assets to pay current liabilities should they become due. This is readily confirmed when one examines and realizes that from 2003 onwards current liabilities have increased at a significantly higher rate than current assets.
- **Gearing ratios:** Currently more than 100% of the company is financed by debt as is evident from a ***total debt/net worth*** standing of over 125%. On average, over the past 5 years (2000-2004) 41% of the company profits are used to pay interest on long-term debt.

3.3.4 Star Cruises Group Ltd

There has been no significant increase in sales from 2002 and the company incurred losses in every year thereafter. This dismal performance, as explained by Wild (2006, p. 102), could have been the result of the high costs associated with setting up NCL America and several unforeseen accidents, particularly the boiler explosion that closed *Norway's* long career and the flooding incident that delayed the

debut of the *Pride of America.* Wild (2006) felt that this situation was further compounded by SARS which had a disruptive effect on the growth of the South-East Asian operation.

- The computed **profitability ratios** have shown negative profitability in every year except 2002. Earnings per share ratio were also negative.
- **Liquidity ratios** have remained generally constant except in 2003; however, the ratios still indicate that the company has insufficient assets to pay current liabilities should they become due.
- **Gearing ratios:** The Star Group is heavily financed by debt**.** In 2004 more than 100% of the company was financed by debt and 89% of the company profits were used to pay interest on long-term debt.

3.4 Cruise Associations [9]

The two main cruise organizations that represent the interests of cruise operators in the North American/Caribbean cruise market are the Florida Caribbean Cruise Association (FCCA) and Cruise Lines International Association (CLIA). Collectively they share resources to undertake marketing research, develop marketing programs, and produce publications disseminating their findings. Additionally, they serve as a pressure group for their members by lobbying governments and international organizations on emerging issues, which impact upon or have the potential to adversely affect their members. Though these associations may appear to be and act like conferences, they, however, do not collaborate in the setting of prices nor transportation prices (WTO, 2003, pp. 55-56).

3.4.1 Florida Caribbean Cruise Association (FCCA)

The FCCA is a not-for-profit trade organization composed of 11 cruise brands that operate more than 100 ships in the North American/Caribbean market. Inaugurated in 1972, its main objective is to provide a forum whereby its members can discuss issues such as legislation, tourism development, ports, safety, and security concerns of the cruise industry. By sharing its understanding of the cruise industry with port authorities, governments, and private/public sector organisations in the Caribbean, the FCCA thereby to create partnerships and cooperation with its

[9] Based on WTO, 2003, p.55-56, Gibson, 2006, p.40-41, FCCA and CLIA websites

stakeholders. In 1992, it commissioned its first study to analyse the economic impact of cruise tourism on destination ports with specific reference to the monetary impact of cruise lines, their passengers and crew. Having established closer ties with the region after 9/11 the FCCA partnered with 19 destination ports and engaged BREA to commission a similar study in 2006 (www.f-cca.com; http://www.cruising.org).

3.4.2 Cruise Line International Association (CLIA)

CLIA was established in 1975 and joined with the International Council of Cruise Lines (ICCL) in 2001, to form the Cruise Line Coalition and become the information source for the cruise industry. CLIA in 2006 eventually merged with the ICCL to become the world's largest cruise association with a membership, which includes 24 of the main cruise lines operating in North America. Prior to the merger CLIA was mainly concerned with marketing and promoting the benefits of cruising on behalf of its 24 member cruise lines and 19000 travel agencies. The member lines controlled 95.1% of the market and owned 81.2% of the ships whilst the agencies represented 66% of all agencies in the United States.

The 2006 merger between CLIA and ICCL implicitly meant that in addition to its commitment to the promotion and growth of the cruise industry, CLIA now had to deal with issues, such as security, vessel and passenger safety, health, insurance, environmental degradation and conservation, consumer/passenger protection, as well as being a lobbyist on behalf of its membership (WTO, 2003, p. 56).

3.5 Vessel Classification[10]

Cruise vessels are categorised according to their size, quality of service offered, exquisiteness of cuisine, customer to space ratio, destination focus, carrying capacity, and the range of amenities on board. CLIA (as cited in Gibson, 2006, pp. 30-31) identified five categories, which are used for the classification of vessels: Luxury, Premium, Resort or Contemporary, Niche or Speciality, and Value or Traditional. These categories will be used in conjunction with Table 4, to further

[10] Based on analysis of CLIA classification by Gibson 2006, p.31 and from own observations as a pilot employed with the St. Lucia Air & Sea Ports Authority from 1989 to 2006.

explain the classification of vessels belonging to major cruise operators in the North American Market.

Table 4: Defining vessel types

Definition	Description
Mega-liner	over 2,000 passengers
Super-liner	between 1,000 and 2,000 passengers
Midsize	between 400 and 1,000 passengers
Small	less than 400 passengers
Boutique	special purpose, usually less than 300 passengers
Sailing Vessel	a ship primarily powered by wind
River Barge	a ship primarily cruising on inland rivers

Source: Gibson, P. 2006, Cruise Operations Management, p.30

Luxury brands are ships that are often small in size with a few being in the midsize category. They have the largest passenger to space ratio, and offer the ultimate in comfort, cuisine and attentive services. On such vessels, passengers develop intimate relationships with Captain and crew because of the vessels' small size and the relatively small number of passengers onboard. Crystal Cruises and Radisson were considered market leaders in the luxury segment with shares of 38.6% and 33.4% respectively of that segment (Mathisen, 2005). Whilst Carnival Corporation had the lowest shares (8.8%) in this market they were clearly the market leaders in the Luxury Sailing Vessels segment with an impressive 57.4% market share.

Premium brands mainly consist of super liners with a few mega liners. Like luxury lines, they offer excellent amenities, spacious and comfortable accommodation areas, outside cabins with balconies as well as fine dining opportunities. The vessels are bigger than those of the luxury brands and services are lower priced. RCCL dominated this segment with a market share of 52.7% followed by Carnival Corporation with 42.5% and MSC Cruises and Oceania having a combined share of 4.8% (Mathisen, 2005) .

Contemporary brands can be compared to floating resorts and mainly consist of mega liners with a few super liners. Their vast size makes it possible for a range of amenities to be provided and often such a brand is regarded as a destination in itself. Gibson (2006, p.70) claims that some passengers, whilst at a destination port, prefer

to stay on board and enjoy the amenities rather than go on shore excursions. Carnival Corporation is the market leader in this segment with a market share of 56.6% trailed by RCCL with 24.4% and the Star Group with 14.9% market shares (Mathisen, 2005).

Niche brands comprise vessels ranging from midsize to mega-liners. Unlike the other brands and in particular the contemporary brand, the niche brand focuses on the destination using their expertise in cultural interpretation, and shore enrichment activities to develop a unique product. This market was controlled by Carnival's Cunard Line with market a share of 56.1%, Delta Queen with 27.9%, and Orient Lines with16% (Mathisen, 2005).

Lastly, the Value or Budget brand is the most economical of all brands and generally comprise of midsize, refurbished, and older ships. Normally the customer to space and staff to passenger ratios as well as the onboard amenities are significantly less than those of previously mentioned brands. This market is predominantly controlled by Imperial Majesty with a 91.3% market share (Mathisen, 2005). Other operators include Windjammer Barefoot Cruises and Star Clippers.

3.6 Chapter Analysis

The most significant findings of this chapter are the level of market concentration, the preferred method of growth, maintenance of brands after acquisition, and the financial performance of cruise operators.

The high level of concentration is indicative of an industry nearing maturity. According to Hill & Jones (1998, pp. 94-95) a mature industry is characterized by little growth, which leads to intense rivalry for market shares and a drive to build brand loyalty. Although this is true, caution must be exercised and due regard given to the differences between the Caribbean and the global cruise industry. Growth in the Caribbean for the past years has been marginal, whereas Europe and the Mediterranean have experienced healthy growth rates. The Mediterranean (WTO, 2003) has been able to achieve fully autonomous development with minimum reliance on the US and Canadian markets.

Cruise operators, particularly Carnival Corporation, have displayed high levels of managerial expertise in the growth strategy used to enter new market segments. As previously mentioned, mergers and acquisitions have predominantly been used in that regard and as explained by Hill & Jones (1998, pp. 326-327) the following are the benefits to be derived:

- Relatively short period to establish a market presence when compared to organic growth, which generally takes a longer time;
- Less risky because of reduced uncertainty resulting from prior knowledge of the history, financial performance, market share and cash flows of the target company; and
- Less costly, especially if a company is seeking to enter a market where existing companies have a noticeable market presence with strong brand loyalty. A company may have such considerable brand loyalty that when acquired, its name an ambience may not be changed (Cartwright & Baird, 1999).

In terms of financial performance, Carnival Corporation can be considered the most efficient or stable cruise operator, when compared to RCCL and the Star Group. The reasons are as follows: increasing profitability (sales and net profits) from year to year; return on assets and investment ratios increased in 2004 and 2005, returning to 2000 levels; increased capacity resulting from the merger with P&O Princess (6 brands with a total of 36,535 lower berths were added to its own 76,789 to give a total capacity of 113,332 lower berths[11]); highest profitability ratios; lowest debt geared of the three-meaning that it was the least likely to go bankrupt; lowest percentage of profits used to pay debt; and the ability to provide, on average, higher earnings per share (EPS) than its competitors.

Mention must be made of the astounding recovery made by the Star Group when they turned a 2003 operating loss of 20.5 million to an operating profit of 120 million in 2004 (G. P. Wild Limited, 2006).

[11] In that same year, 2003, RCCL and the Star Group had 59,678 and 24,354 lower berths respectively (G. P. Wild Limited, 2006).

4 Cost/Benefit Analysis

4.1 Economic Impact[12]

During the cruise year 2005-2006, a total of 15.9 million passengers and crew of 6.6 million were onboard cruise vessels calling at the 19 destinations listed in Appendix B. As indicated in Table 5, a total of 13.7 million passengers and crew of 2.6 million went ashore in destination ports whilst the others remained onboard, either to enjoy ship amenities or for work related purposes.

Table 5: Total Economic Impact by Segment, 2005-2006 Cruise Year

Destinations	Passengers Onshore Visits (Thousands)	Crew Onshore Visits (Thousands)	Total Passengers Expenditures ($US Millions)	Total Crew Expenditures ($US Millions)	Cruise line Expenditures ($US Millions)	Total Expenditures ($US Millions)
Bahamas	1,585.5	279.8	96.0	5.6	42.8	144.4
Western Caribbean	5,454.3	985.0	442.2	47.1	97.4	586.7
Eastern Caribbean	4,607.6	943.6	630.9	119.9	74.9	825.7
Southern Caribbean	1,018.5	213.3	86.6	11.8	11.5	109.9
Deep Caribbean	1,011.0	186.9	84.6	10.1	10.3	105.0
Totals	**13,676.9**	**2,608.6**	**$1,340.3**	**$194.5**	**$236.9**	**$1,771.7**

Source: Own compilation based on information contained in http://www.f-cca.com/downloads/2006-Caribbean-Cruise-Analysis.pdf

Table 5 indicates that the 16.3 million passengers and crew who went ashore in the Bahamas and other Caribbean locations spent an estimated US$1.5 billion on goods and services. Cruise lines spent an additional US$237 million on port services such as pilotage, towage, linesmen, water, environmental levies, waste disposal and other local goods and services. In home ports and some selected

[12] The majority of this section is based on an economic impact study carried out by Business Research & Economic Advisors http://www.f-cca.com/downloads/2006-Caribbean-Cruise-Analysis.pdf

destination ports where provisioning is done, additional charges were incurred when port operational services were used to load food, hotel supplies and other stores to cruise vessels. The combined expenditures of passengers, crew and cruise lines amounted to US$1.77 billion for cruise the year 2005-2006.

The Eastern Caribbean had the highest cruise tourism expenditures with a total of US$826 million, followed by the Western Caribbean with US$587 million, the Bahamas with US$144 million, the Southern Caribbean with US$110 million, and the Deep Caribbean with US$105 million. The combined figure for the Eastern and Western Caribbean represented approximately 80 percent of the total cruise tourism expenditure 2005-2006.

Of the 13.7 million passengers who went ashore, revenues of US$1.3 billion were generated from expenditures on shore excursions, duty free purchases of clothing and jewellery, and handicraft and other souvenirs. Crew on passenger vessels are generally not catered for in cruise destinations, but as indicated in Table 5, an overall amount of US$194 million was generated by the 2.6 million crew members who went ashore.

The Eastern Caribbean, with total crew expenditures of US$120 million represented 62 % of the total crew expenditure. A possible explanation for this high figure is the high level of duty free shopping in St. Maarten and the US Virgin Islands.

Table 6: Direct and Indirect Economic Impacts by Segment, 2005-2006 Cruise Year

Destinations	Total Expenditures ($US Millions)	Direct Employment	Indirect Employment	Direct Employee Wage Income ($US Millions)	Indirect Employee Wage Income ($US Millions)
Bahamas	144.4	2,235	1,730	34.3	26.6
Western Caribbean	586.7	8,890	5,675	100.0	73.8
Eastern Caribbean	825.7	9,805	7,235	172.1	130.1
Southern Caribbean	109.9	1,960	1,215	16.6	10.7
Deep Caribbean	105.0	1,650	1,105	21.1	14.9
Totals	**$1,771.7**	**24,540.0**	**16,960.0**	**$344.1**	**$256.1**

Source: Own compilation based on information contained in
http://www.f-cca.com/downloads/2006-Caribbean-Cruise-Analysis.pdf

The US$1.77 billion in cruise tourism revenues generated in the cruise year 2005-2006 and shown in Table 6 resulted in direct employment for 24,540 Caribbean nationals with businesses providing goods and services to passengers, crew and cruise vessels. The wages earned by these employees totalled US$344 million. Overall, when considering the total revenue of US$1.77 billion and direct employment of 24, 540 persons, it can be reasoned that for every US$72,127[13] generated from cruise tourism, one Caribbean national was employed.

Alternatively, indirect employment of 16,960 jobs generated wages of US$256.1 million. Using the same methodology employed above, it can safely be concluded that for every US$104,363 cruise generated revenue a positive economic impact was produced by the resulting job that was created.

4.1.1 Direct Impact

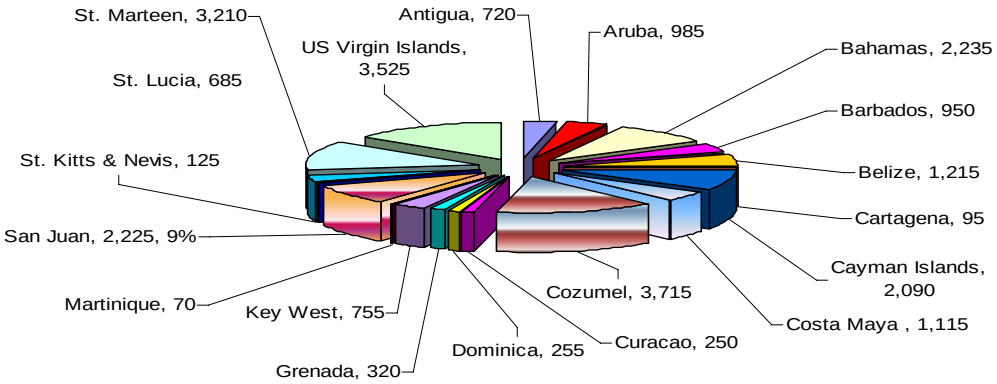

Figure 8: Direct Employment Impact of Cruise Tourism by Destination, 2005-2006 Cruise Year
Source: http://www.f-cca.com/downloads/2006-Caribbean-Cruise-Analysis.pdf

In Table 6, the Eastern Caribbean had the highest cruise tourism expenditure with US$826 million followed by the Western Caribbean with US$587 million. The region with the lowest passenger expenditure was the Deep Caribbean revenues of US$105 million and direct employment of 1650 jobs.

An examination of Figure 8 shows that San Juan (9.6%), St. Maarten (13%), and the US Virgin Islands (14%) made up 36% of the total direct employment created from

[13] US$1.77 billion /24,540 jobs = US$72,127.

the US$1.77 billion cruise tourism expenditure. In the Eastern Caribbean segment, the three destinations represented 91% of total employment figure of 9805 jobs for that segment. The other two destinations represented in the Eastern Caribbean segment are Antigua, and St. Kitts & Nevis with job creation levels of 3% and 1% respectively. The great disparity within that segment can probably be explained by the dual status of San Juan as a home and destination port, the orientation of St. Maarten and the US Virgin Islands towards duty free shopping. ECLAC (2005) implicitly states that the US Virgin Islands will enjoy the highest cruise tourism expenditures because their duty free exemptions are higher than that of other Caribbean islands.

Cozumel has a very impressive direct employment figure of 3,715 which is 2.9% greater than the combined number of jobs in the Southern Caribbean and Deep Caribbean. Destinations in the Southern Caribbean include Barbados with 950 jobs, Dominica with 255, Martinique with 70 and St. Lucia with an overall number of 685 created jobs. Likewise, a breakdown of the Deep Caribbean includes Aruba with 985, Cartagena[14] with 95, Curacao with 250, and Grenada with a total of 320 jobs arising from cruise tourism expenditure of US$16.3 million.

The Bahamas, with its cruise ports of Nassau and Freeport ranks 6th with cruise revenues of US$144.4 million but 4th in terms of direct employment creation. The dominant position enjoyed by the Eastern and Western Caribbean segments, and Bahamas should be expected since in Figure 5, they had relatively high market shares of 36%, 30% and 18% respectively.

4.1.2 Indirect Impact

Figure 9, which show the indirect impact of cruise tourism by destination mirrors Figure 8 in many respects. Destinations such as US Virgin Islands, St. Maarten and Puerto Rico in the Eastern Caribbean, the Bahamas, and Cozumel and Cayman Islands in the Western Caribbean segments fared much better than their counter-parts in the Southern and Deep Caribbean. 42% of the destinations in Figure 9

[14] Cartagena is really in South America but for this exercise is treated as part of the Deep Caribbean.

experienced low indirect impacts and had less than 500 jobs created whilst 15.7% had above 2000 jobs generated indirectly by cruise tourism. The destinations, in order of rank, with the highest number of indirect jobs in Figure 8 are Cozumel, US Virgin Islands, and St. Maarten. In Figure 9, though they still share the top three spots the ranking this time has changed with US Virgin Islands attaining the highest rank followed by St. Maarten and then Cozumel.

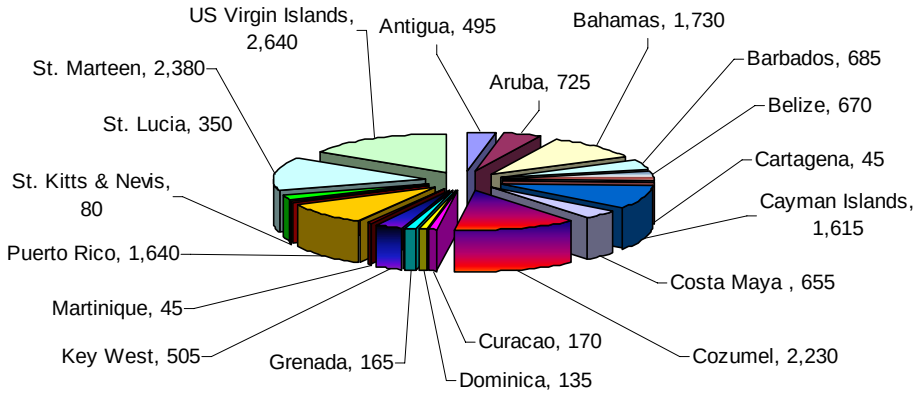

Figure 9: Indirect Impact of Cruise Tourism by Destination, 2005-2006 Cruise year
Source: http://www.f-cca.com/downloads/2006-Caribbean-Cruise-Analysis.pdf

4.2 Environmental Impact

The environmental impact of cruise tourism on destination ports, adverse or otherwise, is caused by complex relationships among the various stakeholders. Such stakeholders include but are not limited to Cruise Operators, Flag States, the International Maritime Organization (IMO), and Destination Ports. The latter includes governments, port authorities, tour operators, attraction administrators, agents and, to a lesser extent, the inhabitants themselves.

Cruise vessels are central to any analysis on environmental impact studies related to cruise tourism. These vessels, in addition to being the link between Home and Destination Ports, are designed, built, and marketed as floating hotels. The many amenities onboard these vessels which assist in achieving this strategy generate waste, which, in some instances, has been indiscriminately dumped along the sea routes plied by these vessels (OCEANA, "n.d.").

Johnson (2002, p. 263) uses the life-cycle analysis (LCA)[15] to categorise the impact cruise tourism has on the environment. The five categories used in the LCA methodology are infrastructural, operational, distribution, use, and waste impacts. They are analysed as follows:

- ***Infrastructural impacts*** begin with the construction of the vessel and continue with the modifications to the natural habitats to build berths and cruise terminals.
- ***Operational impacts*** pertain to the vessel and the effect it has on the ocean and air quality. Such impacts are caused by antifouling paints, damage caused to coral reefs by anchoring operations and the emission of exhausts and ozone depleting substances by ship engines.
- ***Distribution impacts*** are those associated with tourist travel and the logistics of provisioning a cruise liner. It also involves going over the carrying capacity of destinations and any congestion or pollution caused by landside transport links.
- ***Use impacts*** are those related to social, cultural, health, and economic activities as well as the impacts of recreational activities on wild life.
- ***Waste impacts*** refer to ship generated wastes such as oils, garbage, sewage, plastics and other hazardous substances which require port reception facilities for ship to shore disposal. Gray water (waste water) from sinks, showers, galleys and laundry contains significant contaminants and should also be included in this section.

4.2.1 Air pollution

Cruise vessels use fuel not only to power their engines but also to maintain the integrated electrical systems used to create that “wow” effect onboard (www.oceana.org). That very fuel however, when emitted as exhaust into the atmosphere can and does impact negatively on human beings as well as the stratosphere.

[15] LCA was developed by British Airways to categorise the impact of tourism on the Seychelles.

The exhausts from diesel engines comprise many gases, the most significant of which are nitrogen oxides (NO_x), sulphur oxides (SO_x), and carbon dioxide (CO_2). NO_x and SO_x emissions have high environmental impacts and are known for causing acid rain, over-fertilization of lakes and soil, and potential damage to vegetation and human health. SO_x emissions are negligible at sea but more pronounced near coastlines and especially in cruise ports, which are normally located near major residential areas. Lastly, CO_2, which is a natural constituent of the air, is considered a major greenhouse gas, which contributes to global warming (Hellén, 2003).

Annex VI of MARPOL 73/78, effectively sets limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances. It must be noted that irrespective of this, the Caribbean has not been designated as a SO_x Emission Control Area (SECA) and does not have the capacity to monitor nor determine, the extent of environmental damage caused by cruise vessels (International Maritime Organization, 1997) .

It is very difficult, therefore, to allocate any monetary costs to the toxic emissions from cruise ships. However, according to the Bluewater Network (2006), shipping emissions contribute to substantial human health and environmental problems. People living near ports experience higher levels of cancer, heart attacks, asthma, respiratory illness and other cardiopulmonary problems as well as premature death.

This type of pollution, considered an *operational impact,* has not gone unnoticed. Research is currently being done to determine the most cost-effective option aimed at reducing the level of harmful emissions from ship engines. The International Maritime Organization along with other stakeholders such as International Association of Independent Tanker Owners (INTERTANKO), and the International Bunker Industry Association (IBIA) are in the forefront of this research. Available options include the burning of distillate fuel, installation of scrubbers, and using low sulphur heavy fuels (Cruise Industry News, 2007).

In the interim, the Caribbean should be hoping that the intensive lobbying efforts by environmental groups allied with Friends of the Earth International (Bluewater

Network, 2006) will succeed in getting the IMO to introduce air pollution controls on both new and existing engines to assist in drastically reducing air pollution from diesel ship engines.

4.2.2 Ship generated wastes

Ship generated wastes, especially the magnitude generated by cruise vessels, have led the IMO to designate the Wider Caribbean as a "special area" under Annex V: Garbage of MARPOL 73/78. The Caribbean is thus afforded higher levels of protection than other areas of the sea due to technical reasons relating to its oceanographic and ecological conditions as well as its heavy reliance on cruise tourism. Annex V goes further to put the obligation on governments who have ratified this regulation, to ensure that adequate port reception facilities [16] are available for garbage reception (International Maritime Organization, 1991).

The Caribbean is the world's top cruise destination and one where the majority of very large cruise vessels (VLCVs) have been deployed. This should be a cause of environmental concern when considering the waste generation capacity of such vessels, the tarnished history of cruise lines for deliberately polluting, and the lack of adequate port reception facilities in destination ports. A cruise ship with a carrying capacity of 2,000-3,000 passengers (OCEANA, "n.d.") can potentially generate waste per passenger per day of approximately 300 litres of greywater, 40 litres of blackwater, 10 litres of bilge water, 3.5 kilos of garbage and 30 grams of toxic waste.

Table 7: Amount of waste generated in the Bahamas and Caribbean for the year 2004

Segments	Passengers (000's)	Grey water (litres)	Black water (litres)	Bilge water (litres)	Garbage (kilos)	Toxic Residue (grams)
Bahamas	2767	830100	110680	27670	9685	83010
Western Caribbean	6323	1896900	252920	63230	22131	189690
Eastern Caribbean	6826	2047800	273040	68260	23891	204780
Southern Caribbean	5131	1539300	205240	51310	17959	153930
Deep Caribbean	1751	525300	70040	17510	6129	52530
Total	**22798**	**6839400**	**911920**	**227980**	**79793**	**683940**

Source: Own compilation of data, selection of base year and segments based on concept depicted in http://www.oceana.org/fileadmin/oceana/uploads/europe/reports/cruise_ships_eng.pdf p.1

[16] Port reception facilities will be discussed thoroughly in Section 4.2.3

Taking the calculated waste per passenger per day, Table 7 shows the amount of waste that was generated in 2004 in the combined geographic segments of the Bahamas and the Caribbean. The scope of this dissertation does not allow for a thorough analysis of methods used by cruise vessels, to dispose of waste that is not incinerated or treated onboard as well as waste which cannot be disposed of in Caribbean ports. Surely, if wastes are dumped at sea then the magnitude of externalities arising from this environmental degradation would far outweigh any benefits derived.

In the past, especially in the United States, cruise lines have been prosecuted and heavily fined for their deliberate circumvention of MARPOL 73/78. For example, 87 confirmed cases were prosecuted in the United States and fines in excess of $US 30 million were levied against cruise lines during 1993 to 1998. As recently as 2002, fines of $US18 million and US$1.5 million were levied at Carnival Corporation and Norwegian Cruise Line respectively for illegally dumping wastes in US waters (ECLAC, 2005; Schmidt, 2000).

Today, unlike in the past, the major cruise operators have demonstrated more cognizance of the potential impact the industry has on the environment. The turn around began in 2003 when RCCL, the very first in the industry, attained the internationally accredited environmental management certificate of ISO 14001. Having substantially invested in its own fleet, market leader Carnival Corporation & plc followed suit and attained ISO 14001 certification on September 12, 2006. According to its chairman and CEO Micky Arison, “Carnival Corporation & plc will continue to undertake wide ranging environmental initiatives in an effort to reduce its environmental footprint” (Cruise Industry News, 2006; Peisley, 2006).

This view is echoed by Gibson (2006) who seems to suggest, that cruise ships now treat ship generated wastes in accordance to industry regulatory requirements which are often more stringent and demanding than government regulations.

4.2.3 Port reception facilities

As per Regulation 12 (1) of Annex I: Oil, Regulation 10 (1) of Annex IV: Sewage and Regulation 7 (1) of Annex V: Garbage of MARPOL 73/78, parties to the Convention should ensure that reception facilities are available at their ports and terminals for ship generated wastes. The operation of such facilities should not cause undue delays to ships and should have the capacity to meet the requirements of the ships using them (IMO, 2002). The Convention designating the Wider Caribbean region as a Special Area, was adopted on 4 July 1991, came into force on 4 April 1993, but to date has not taken effect. According to Francesco J.L Inglés[17], the Convention only takes effect when Caribbean nations indicate to the IMO that they are equipped with reception facilities as per the above cited regulations (F.J.L. Ingles, personal communication, August 3, 2007;International Maritime Organization, 1991).

The Saint Lucia Solid Waste Management Authority (SLSWMA) agrees that many regional states do not have IMO approved "reception facilities" and alluded to the cost factor as a possible reason for their unavailability. SLSWMA, however, explained that many CARICOM states work closely with cruise lines to facilitate the reception and disposal of certain categories of ship generated wastes. Saint Lucia for example, through the collaborative efforts of the Saint Lucia Solid Waste Management Authority and local businesses, is able to receive and dispose of plastics, solid wastes, biomedical wastes and oil/oily wastes. Cruise lines, through their agents, are required to give 48 hours prior notice of their intentions to dispose of such waste (SLSWMA, Personal communication, July 03, 2007).

4.3 Social Impact

Socially, cruise tourism has had both positive and negative influences on the Caribbean. Proponents of its positive impact see cruise tourism as an engine which generates renewed awareness and celebration of indigenous Caribbean cultures and historic sites. This is of particular importance to the region, especially since with the passage of time, cultural values and the historical significance of various sites

[17] Francesco J.L Inglés is the Head of the Oil Pollution Prevention & Implementation Section of IMO

and monuments are not readily transmitted from one generation to the next (King, LeBlanc, & Lowe, 2000).

Alternatively, critics view cruise tourism as being responsible for rekindling memories of the slave/master relationship and thus leading to the relegation of black people. They also argue that treating the region's culture, land and people as a commodity to foreigners must definitely have a strong impact on the way that nationals view themselves and their culture (King, LeBlanc, & Lowe, 2000).

Nurez, (as cited in Cartwright & Baird, 1999), defines acculturation as a process whereby groups borrow aspects of culture from each other. He sees it as a very one-sided process because of the short time cruise vessels spend in destination ports. As a result, it may be difficult for an individual American or British passenger to internalise the culture of a destination, but relatively easy for its inhabitants to acquire aspects of their social and cultural attributes. This, Nurez argues, was possible because inhabitants of destination ports would be exposed to thousands of American and British nationals during the cruise season. He identified linguistic aspects as being the easiest to adopt and incorporate into the day-to-day lives of the Caribbean inhabitants.

Dermot Saltibus, Ex-Director of Maritime Affairs of the Saint Lucia Air & Sea Ports Authority, sees the social problem of drug smuggling as being a potential risk associated with cruise tourism. In most instances, passengers leave the vessel and proceed directly to excursion buses, dive boats, catamarans and other pleasure craft without having to go through customs and security checks. On cruise vessels, security checks are executed when passengers or shore personnel are embarking and not during disembarkation (D. Saltibus, personal communication, July 15, 2007).

4.4 Security Issues[18]

The Caribbean, the world's number one cruise destination, is literally located in the "back yard" of the United States and often referred to as its "third border". The region is heavily dependent on cruise tourism and in accordance with the US

[18]Based on findings of United States Government Accountability Office and IMO website

Government Accountability Office (2007), an estimated 68 percent of cruise passengers in the Caribbean in 2006 were from North America. The North American source market can thus be regarded as the backbone of the Caribbean's cruise industry.

The most significant security initiative to ever emerge in the region and which has had lasting impacts on all ports is the International Ship and Port Facility Security Code (ISPS). It was developed by the IMO in response to perceived threats to ships and port facilities following the terror attacks on the United States on September 11, 2001. The Code's approach of ensuring the security of ships and port facilities was practically one of risk assessment and management. The most effective method recommended to assess risk was to treat each perceived threat on the basis of its own merit and then determine the most appropriate security measures to employ http://www.imo.org.

The ISPS Code, therefore, called on Contracting Governments to make every effort to enhance the level of security at their port facilities, especially since the events of 9/11 implicitly signified that acts of terrorism were real and not imaginary. Port facilities were thus required to develop security plans, increase the complement of security officers, and more extensive use of security equipment. This would allow port facilities to have better control over port access and improved monitoring of the activities of people, cargo, and the movement of marine craft (Moth, 2003).

The costs incurred by regional states to be ISPS compliant were considerable taking into account the tranquil environment and generally lax security at most ports. A considerable amount of borrowing had to be undertaken by regional states to upgrade their security levels and be cleared for compliance by the stipulated date of July 1, 2004. According to port officials at the Barbados Port Incorporation, the introduction of new security measures entailed spending vast sums of money. They, however, saw the high compliance costs as being necessary to maintain the region's accolade of being one of the safest destinations worldwide (Faria, 2005).

This view of the Caribbean being a “safe zone” is substantiated in a recent report released by the US Government Accountability Office (2007) on Port Security in the Caribbean. The Agency stated that US intelligence sources found no specific, credible terrorist threats to maritime security in the Caribbean Basin.

4.5 Liner Shipping Impact

Cruise tourism in the Caribbean, as has been repeatedly said, is a huge business. All destination ports, particularly those which rely heavily on this industry, give priority berthing to cruise vessels. In small ports with a combination of dedicated cruise terminals[19] and multi-user berths, this practice is more pronounced. On a typical day during the cruise season, where all berths have been assigned to cruise vessels, it is customary for container vessels to spend as much as thirteen hours at the anchorage. The monetary costs, associated with such lengthy delays to liner shipping companies, shippers and their customers, are hardly ever considered by port authorities.

Saltibus believes that port operators should examine the impact of their berthing policies on the general economy. In instances where berthing conflicts exist, then ports should seek alternative means of accommodation and use anchorages rather than compromise the movement of general cargoes. Saltibus, fervently argued, that the some port operators were insensitive to the added cost incurred by shipping companies arising from the berthing priority given to cruise vessels (D. Saltibus, personal communication, July 15, 2007).

Fritz Pinnock, Executive Director of the Jamaica Maritime Institute, and Pilots Lazarus Joseph and Gary Benjamin from the Grenada and Dominica Port Authorities, all agree that priority berthing given to cruise vessels can adversely impact on the operations of container vessels. However, Pinnock, Joseph and Benjamin all shared the view that since ports operated on a 24-hour basis, container vessels had the opportunity to work at nights and lessen the impacts related to waiting time. Additionally, Pilot Joseph indicated that notwithstanding this adversity,

[19] This refers to berths dedicated for cruise vessels in general and not for any particular cruise line.

with adequate communication between the port and shipping agents, container vessels could always adjust their arrival times to arrive “just in time” and thus avoid undue delays and costs (F. Pinnock, personal communications, July 12-18, 2007).

Wood (as cited in Seidl, Guiliano, & Pratt, 2006) held the view, that it was almost a universal practice to give berthing priority to cruise vessels. He implied that cruise vessels had a domineering attitude, hated to wait in line, and at the slightest sign of delay, would threaten to cancel the call. Woods felt that this practice was detrimental to cargo vessels and generally, unjustified economically.

4.6 Chapter Analysis

The cruise industry appears to be contributing quite significantly to destination ports as was depicted in Tables 5 & 6, and in Figures 8 & 9. Revenues generated from the cruise industry were obtained not only from cruise passengers but also from various vessels and members of the crew. However, taking into account the changing demography of cruisers, the lower costs of cruising brought about by economies of scale, and the tendency to market the vessel as the prime destination, one wonders just how significant are the much proclaimed benefits.

Table 8: Comparison of economic benefits of selected destinations for cruise year 2005-2006

Destinations	Total Expenditures ($US Millions)	Direct Employment	% of Population	Total Employment	% of Population	Population
Bahamas	144.4	2,235	0.7%	3,965	1.3%	303,770
Belize	64.2	1,215	0.4%	1,885	0.6%	300,000
Cayman Is.	179.7	2,090	8.8%	3,705	15.6%	23,800
St. Maarten	246.4	3,210	5.2%	5,590	9.0%	61,967
US Virgin Is.	361.6	3,525	3.5%	6,165	6.1%	101,809
Barbados	57.3	950	0.4%	1,635	0.6%	257,083
St. Lucia	34.8	685	0.4%	1,035	0.7%	152,335
Aruba	66.2	985	1.5%	1,710	2.6%	65,100
Curacao	18.0	250	0.2%	420	0.3%	143,816

Source: Own compilation based on data found in www.ipoaa.com/caribbean_population.htm & http://www.f-cca.com/downloads/2006-Caribbean-Cruise-Analysis.pdf

Table 8, which compares cruise tourism expenditures for selected destinations to the jobs created as a percentage of the population, clearly shows that directly or

otherwise, the benefits were marginal. The only destinations in Table 8, benefiting slightly better than others, but marginal nevertheless, are the Cayman Islands, Sint Maarten, and the US Virgin Islands. Coincidentally, these destinations all have overseas territory status and belong to Britain, Holland and the United States respectively. Further research may be needed to determine if any correlation exists when the status of a destination is compared to its cruise tourism revenues, level of jobs created and island-related attributes, especially those attributes which serve as a stimulant for investment.

Any business venture related to the cruise tourism industry will more than likely have environmental impacts as described in the life cycle analysis previously discussed in Section 4.2-Environmental Impact. The magnitude of impacts can, however, be lessened if proactive action is taken by all stakeholders and if operations are consistently monitored. For example, the Port of Le Havre, during the construction phase of its Project 2000, spent a substantial amount to restore mud flats, build a sanctuary for birds, and create an ecological beach. Arrangements were also made to undertake scientific follow up studies for about 10 years after the construction of Port 2000 (Port of Le Havre Authority, 2007).

The Caribbean, in comparison, hardly undertakes any environmental impact studies for port infrastructural development or for the creation of tourist attractions. Fritz Pinnock and Dermot Saltibus agree, that the high cost of cruise ship environmental impact studies is one reason why few regional states monitor the impact of cruise tourism on regional states. They also generally agreed that the environmental levy was not always used for environmental purposes and in most instances was placed in governments' consolidated fund (F. Pinnock; D. Saltibus, personal communication, July 14-15, 2007).

Knowing this, as well as the historical evidence of cruise vessels at times intentionally circumventing MARPOL 73/78, one can only wonder on the extent of dumping which has been done in the Caribbean. This is particularly frightening, given the scale of wastes generated by vessels operating in the region during 2004 (see Table 7) and the many health problems, even deaths that may have occurred.

Both Pinnock and Saltibus, expressed the view, that the absence of a regional policy to govern the collection, transportation and disposal of ship-generated wastes may lead to a situation where the costs of cruise tourism far exceed its benefits.

As an agent of cultural and social change, cruise tourism is extremely influential. The Caribbean is known for having a homophobic culture which, strangely enough, is more receptive to lesbians than gays. Undertaking detailed research to confirm this is not necessary; a simple Google search on "***gay bashing in the Caribbean***" will generate tons of information. For better or for worse, it will never be known, the cruise industry has managed by virtue of its economic power, to get some regional states to allow vessels with gay cruisers into their ports. The very first time a vessel with gay cruisers called at Port Castries in St. Lucia, many taxi drivers withheld their services that day as a sign of protest against gays.

The situation on a subsequent visit of that vessel came as a shock. The same drivers who vehemently protested months before were now in the forefront of drivers who wanted to offer their services. The reason for this apparently sudden change was the high economic value attached to gay cruisers by drivers who had no reservations in offering their services to that category of cruiser[20]. Though this may appear minor but for this to happen in a region where it is illegal to marry someone of the same sex, it is significant.

This last point brings an end to this chapter because it shows the importance of the revenues generated by cruise tourism to people directly involved in the industry. Though the number of jobs created may be low, when consideration is given to the multiplier effect of every dollar, a greater number of persons gain from the industry than what research would otherwise indicate.

[20] Apparently, the cruisers had given very attractive tips to their taxi drivers.

5 Critical Issues Facing Destination Ports

5.1 Increasing Vessel Size

Table 9 shows the changing size, carrying capacity and cost of selected cruise vessels plying the Caribbean during 1987 to 2006. It also reveals the gross tonnage of new projects being undertaken by Carnival Cruise Lines and Royal Caribbean International. In 1987, the Royal Viking Sun, to some ports, would have been considered to be a mega vessel and those ports at that time had facilities to adequately accommodate her. The emergence of increasingly larger vessels meant that only the smaller vessels could be berthed alongside whilst the new comers found accommodation at the anchorage. A system of "tendering" was thus introduced whereby small boats and in some cases the cruise vessels' life boats would be used to shuttle passengers from ship to shore and vice versa.

Table 9: Changing size, carrying capacity and cost of selected cruise vessels, 1987-2009

Year	Name of Vessel	Line	Passenger Capacity	Crew	Gross Tonnage	Length (in feet)	Cost ($US Millions)
1987	**Royal Viking Sun**	Cunard	740	384	37,845	672	NF
1993	**Sensation**	Carnival	2,056	920	70,367	855	300.0
1998	**Grand Princess**	Princess	2,600	1,100	109,000	951	400.0
2003	**Marnier of the Seas**[21]	RCI	3,114	1,181	142,000	1,020	550.0
2003	**Queen Mary-2***	Cunard	2,640	1,253	150,000	1,132	NF
2006	**Freedom of the Seas**	RCI	3,634	1,385	158,000	1,112	720.0
2009	**Pinnacle Project**	Carnival	NF	NF	200,000		NF
2009	**Project Genesis**	RCI	5,400.0	NF	220,000	1,180	NF

NF-No Found; * Queen Mary 2 visits the Caribbean twice a year on her transatlantic crossing

Source: Mathisen, O., 2005, p.79-100; http://shipstips.com

Eventually, upon realising that the ***big ship*** trend was continuing, destination ports took the plunge and obtained finance through loans and grants to upgrade their

[21] All references made to Voyager of the Seas would have the same specifications as this vessel

facilities. Harbours were dredged, berths constructed, passenger terminals built, shore attractions enhanced, and most importantly, human resources were trained to provide support services. This era also saw the modification of the ***tour*** concept whereby it was no longer sufficient to simply "drive around" with tourists and stop at prearranged locations for meals; a tour was redefined to incorporate a host of activities, some cultural in nature when such stops were made.

Not long after regional states had undergone extensive and expensive upgrades, and before they could have even repaid a significant loan amount, the size of cruise vessels again was on the increase. An example is given of the Saint Lucia Air & Sea Ports Authority investing EC$14.4[22] million to upgrade the two cruise-only finger piers to continuous berths in March 2000. By July 2002, an additional EC$3.9 million was spent to modify one of the recently constructed berths. This was "supposedly" necessary to facilitate the berthing of Adventure of the Seas in August 2002.

Throughout the Caribbean, other islands also invested in their berthing and terminal facilities so as to be in a state of readiness for mega cruise vessels, if and when they do call. Examples are St. Maarten, St. Kitts, Dominica, Jamaica, Grenada, and Antigua (Peisley, 2006).

5.1.1 Capacity to accommodate mega cruise vessels

Further research to ascertain whether destination ports in the region had the capacity to accommodate mega cruise lines revealed the following:

Bahamas

A tourism official at the Freeport Harbour Company Limited confirmed that both Freeport Harbour and Nassau had eight cruise ship berths. At Freeport the berths had a continuous length of 4, 500 feet and Nassau, a total of 4,904 feet. The maximum draft was 32 feet. The largest class of vessel, which could be accommodated at either of the ports, was that of the Voyager Class with an overall length of 1020 feet. According to the unnamed official, there were no immediate

[22] US$1.00 is equivalent to EC$2.67

plans to upgrade any of the berths (Freeport Harbour Company Limited, personal communication, July 24, 2007).

Western Caribbean

Belize: Anthony Mahler of the Belize Tourist Board admitted that there were no berths to accommodate cruise vessels in Belize. As a result, all vessels anchored approximately five miles off the coast and tenders were used to shuttle passengers ashore. He indicated that there were ongoing discussions between Royal Caribbean International (RCI) and a Belizean who owned an island to construct two mega cruise vessel berths on his premises. RCI is the co-owner of the Belize Tourism Village with global jewellery retailer, Diamonds International. Mahler also alluded to a US$50-60 million deal between Carnival Lines and the local owner of a cargo port in Belize to construct a cruise port for mega vessels. Apparently, there was a break down in talks between the two parties and the local entrepreneur is now seeking other partners to pursue the venture (A. Mahler, personal communication, July 23, 2007).

Cayman Islands: Joseph Wood of the Port Authority of the Cayman Islands acknowledged that all cruise vessels were accommodated at the anchorage since no physical berths existed. He, however, hinted that talks were in progress to construct a facility to simultaneously berth four mega cruise vessels. As implied by Peisley (2006), the Cayman Islands had a very high intrinsic value since it consistently was in the top three or four Caribbean cruise destinations, despite there being no physical berths. Efforts to obtain an estimated project cost from Wood were futile (J. Wood, personal communication, July 23, 2007).

Jamaica: Captain Mendes of the Port Authority of Jamaica gave some insightful information about the capacity of Jamaica to berth not only the largest vessel afloat today, but also of their preparations to provide a berth alongside for the Genesis in 2009 (Table 9). Freedom of the Seas, currently the worlds' largest cruise vessel, can be safely berthed at Ocho Rios and Montego Bay. At present, studies are underway to assess the feasibility of converting the vacant port of San Falmouth into a cruise terminal. Captain Mendes explained that the nature of the cruise industry

was such that, within a few years of undertaking berth upgrades, new and bigger vessels were being built. A port, desirous of maintaining its competitiveness, would also have to adapt its development to coincide with that of new vessel releases (Mendes, personal communication, July 23, 2007).

Eastern Caribbean

Antigua: Chief Pilot Michael Emmanuel indicated that Heritage Quay could accommodate four Voyager Class vessels and the Deep water Harbour two (Table 9). In accordance with Emmanuel, Heritage Quay had four cruise-only berths and Deep Water Harbour had two commercial berths which were also used for cruise vessels. The Chief Pilot further revealed that the port, in keeping with the requirements of RCCL, was planning to increase the diameter of the turning basin by 50 meters to facilitate the safe manoeuvring of the Freedom of the Seas when she makes her inaugural call. He was, however, quick to point out that the port was nearing its limit with regards to the size of vessel that can be berthed (M. Emmanuel, personal communication, July 23, 2007).

St. Maarten: An island known for its attractive duty free shopping facilities can berth three Voyager Class vessels alongside and two small vessels (Table 4-defining vessel types). Romain Laville, of the St. Maarten Port Authority, explained that during the peak of the cruise season, the island would sometimes have visitors from 6-9 cruise vessels per day. Vessels unable to get a berth would normally anchor a few cables off the capital Philipsburg and use tenders to get passengers ashore. In that regard, a jetty to berth 12 tenders has recently been constructed. Freedom of the Seas according to Romaine, has docked alongside the Dr. A.C. Wathey cruise facility and preparations were already being made to berth the Genesis in 2009 (Romain Laville, personal communication, July 23, 2007).

Southern Caribbean

Barbados: In the past Barbados, in keeping with the views expressed by Pilot James Padmore could easily berth 6-7 cruise vessels, but now, with the increasing size of vessels, the port's capacity had reduced to three Voyager Class vessels. Padmore was confident that his port could accommodate the Freedom Class

vessels having berthed the Queen Mary 2 alongside in recent times (J. Padmore, personal communication, July 23, 2007).

Dominica: Pilot Garry Benjamin expressed concern with the ever increasing size of cruise vessels, since it meant costly upgrades to existing facilities and perhaps even the construction of new ones. The largest vessel to berth at the Cabrits Cruise Ship Berth was of the Grand Princess Class in Table 9. Pilot Benjamin was positive that larger vessels could be berthed so long as their draft did not exceed 10 meters. Dominica has three cruise ship berths with one of the three having cruise-only status (G. Benjamin, personal communication, July 12, 2007).

St. Lucia: Port Castries can accommodate two Voyager Class, one Sensation Class, and two Royal Viking Class vessels simultaneously (see Table 9). The port has two cruise-only berths, owns a duty-free shopping complex and has plans on constructing a crew entertainment facility to tap into crew expenditure as a source of cruise related revenue. Port Castries, according to Chief Pilot O. Cadet, has a turning basin of 1400 feet and thus sufficient space to manoeuvre and berth Freedom Class vessels. He further explained that Berths 3 & 4 were upgraded in 2006 and high wind bollards were installed to facilitate the safe mooring of that class of vessel. He did indicate that dredging had to be done and talks had been held with Captain Neilsen of Royal Caribbean International pertaining to the Freedom of the Seas (O. Cadet, personal communication, July 25, 2007).

Deep Caribbean

Grenada: In the past, all vessels of the Sensation Class (Table 9) and above anchored off Capital city St. Georges and shuttled passengers ashore. However, the new EC$33 million Melville Street berthing facility allows vessels of Grand Princess Class to berth on either side of the facility. Pilot Lazarus Joseph, Grenada Ports Authority, indicated that smaller vessels can be accommodated at the commercial port of St. Georges. Joseph, however, had reservations about the adequacy of the new facility to facilitate the berthing of increasingly larger vessels and the congestion that may result at heritage sites ashore. Queen Mary 2 visited

Grenada and berthing space was provided at the anchorage (L. Joseph, personal communication, July 18, 2007).

Aruba: Richard Lecla, Aruba Ports Authority, Inc. indicated that the island's main harbour had three cruise ship berths and one multi-user berth. The largest vessel the port could accommodate belonged to the Grand Princess Class listed in Table 9. Lecla, however, revealed that plans were currently underway to upgrade the port's berthing facility in 2008 to berth Voyager Class vessels (R. Lecla, personal communication, July 23, 2007).

5.2 Balance of Power between Cruise Operators and Regional Ports

The term balance of power in the context of this dissertation refers to the ability of one entity to exert control over the actions of another by using its own strategic advantages or by exploiting inherent weaknesses of the other entity. It implicitly means that the party asked to perform a task will comply irrespective of not being in agreement or being placed in a disadvantageous position as a result. Cruise operators in the Caribbean are perceived to have the balance of power in their favour and on several occasions have been accused of using that power against destination ports.

In assessing the validity of this allegation the following issues will be discussed; level of concentration among cruise operators, substitutability of destinations, market representation, cooperation among destination ports, and dependence of destination ports on cruise tourism.

5.2.1 Level of concentration

As previously discussed in Chapter 3, cruise operators Carnival Corporation, RCCL and the Star Group, have among them shares representing as much as, 90% of the North American Market. The largest cruise operators possess among them considerable power, which is often used during negotiations with suppliers, destination ports and other key industry players. Gibson (2006) asserts that cruise operators aim to reduce costs as much as possible without negatively affecting

quality. Gibson further explained that negotiation is done to achieve the best ratio of price to quality and to benefit from economies of scale and negotiating power.

On several occasions cruise operators have flexed their powerful muscles in the region to send a strong message to destination ports and thus keep them in line. In 1993 the Heads of Government of the Caribbean Community met in Nassau and agreed to the concept of a minimum head tax to be levied on cruise passengers. Subsequently a figure of US$15 per passenger was agreed upon, but the cruise lines through the FCCA voiced their displeasure and threatened to remove the 13 Caribbean Islands from their itineraries if the tax was imposed. This show of power had the desired effect and within a week, the islands broke ranks and never implemented the tax (http://www.history.pdx.edu/hdwp/economy/grenada_ec.html).

Another glaring example of power play between cruise operators and destination ports occurred in 1999 when Carnival Cruise Lines gave notice of its immediate removal of Grenada from its itineraries. The cruise line cited the reason for this action as being its objection to a 1996 Environmental Levy[23] of US$1.50 per passenger that was imposed by islands of the Eastern Caribbean. At the time of its withdrawal, Carnival was responsible for 50% of cruisers who visited Grenada (http://www.caricom.org/jsp/pressreleases/pres115_99.htm).

5.2.2 Substitutability of destinations

The proximity of Caribbean islands to each other is one of the strategic advantages the region has over its competitors. However, the general movement of cruise traffic towards the Western Caribbean has resulted in the loss of market share and the creation of excess capacity in other regional segments. The proximity of islands and the existence of excess capacity have weakened the negotiating power of destination ports and made it relatively easy to switch from one destination port to another.

[23] This levy was to help meet the cost of solid waste reception and disposal arising from the operations of cruise vessels in the region.

The situation is worsened by the intensifying of competition between destination ports and according to Gibson (2006) this leads to a situation where port fees for many Caribbean islands are relatively inexpensive, ranging from US$4 to US$6 per customer. This point is supported by Wilmsmeier (2006) who states that individual ports have a weak negotiating position against the demands and threats of the cruise industry. Wilmsmeier further explained that terminals are often put in a position of having to make concessions to either keep ships coming back or to entice ships to come.

The negotiating power of destination ports is further marginalized when cruise lines market their private islands as the true Caribbean experience and include them in cruise itineraries. This development is of particular concern to regular destination ports because it effectively means the cancellation of their ports whenever the option of calling at a private island is exercised (Robertsen, "n.d."). Cruise lines have implicitly refuted this argument by explaining that it had become increasingly difficult marketing the same ports over and over again and in finding new ports of call. It was thus their responsibility to stimulate the creation of new Caribbean ports by way of investment in private islands (Peisley, 2006).

5.2.3 Market representation

Section 3.4 of Chapter 3 introduced the Florida Caribbean Cruise Association (FCCA) and the Cruise Lines International Association (CLIA) as representative associations for the cruise lines. The importance of cruising to the Caribbean (Peisley, 2006) became manifested during post 9/11 when in relation to land tourism which fell from 17.2 million in 2000 to 16.1 million in 2002; the number of cruisers steadily increased. This trend is illustrated in Figure 6, on page 11 of Chapter 2.

Notwithstanding the above and in keeping with views expressed by ECLAC (2005), neither Caribbean governments nor Caribbean port authorities have seen it necessary to establish a regional cruise port association. The Caribbean Tourism Organisation [24](CTO) was established in January 1989. Its primary objective is to

[24] Detailed information can be obtained from http://www.caricom.org/jsp/archives/agreement-cto.htm

provide to, and through its members, the services and information necessary for the development of sustainable tourism leading to the economic and social benefit of the Caribbean. Essentially the CTO can and should be regarded as the official negotiating agency of destination ports.

However, and according to a senior official at Trinidad & Tobago's Ministry of Tourism, most destinations prefer to do their own negotiations on the premise that this will generate more vessel calls, higher visitor arrivals and thus high economic returns. This practice is detrimental to the region and weakens significantly any effective representation, which the CTO can provide. Therefore, by showing a preference to individualistic representation rather than collective bargaining, destination ports effectively transfers the balance of power to cruise operators.

5.2.4 Cooperation among destination ports

Reference is made to Section 5.2.1 where the issue of the US$15 head tax in 1993 was discussed. It should be borne in mind that the Caribbean, within only one week, yielded to the wishes of cruise operators and refrained from implementing the agreed upon tax. A general lack of cooperation was thus displayed at a time when Cozumel was the only Mexican port to be actively engaged in cruise tourism and the globalization of the Caribbean cruise experience was still in its infancy stages. The Caribbean thus had the capacity in 1993 to insist on the implementation of the tax or negotiate an amount higher than the US$5 which currently exists.

Pinnock, Saltibus, Joseph and Benjamin strongly supported the view that the intense level of competition for cruise tourism revenues at times could lead to mutual distrust and lack of cooperation among regional states. This lack of cooperation and individualism was seen to further erode the negotiating power of destination ports and create situations, which may make it easier for them to be manipulated by cruise operators. According to Benjamin, "a chain is as strong as its weakest link, united we'll stand but divided we'll fall" (D. Saltibus; F. Pinnock; G. Benjamin; & L. Joseph, personal communications, July 12-18, 2007).

5.2.5 Dependence of destination ports on cruise tourism

The Caribbean nations should never forget the name Las Casas de Bartolomé for it was his actions that marked the beginning of the dependency syndrome that characterizes the Caribbean's economy. The high economic returns of sugar cane resulted in Las Casas convincing the King of Spain to order all available land to be used for sugar cultivation, and foods imported (Williams, 1970).

Until the mid-20th century, the Caribbean relied heavily on its agricultural based economy, but when this was undermined by globalization, it diversified into tourism and became just as dependent on a tourism-based economy. The Caribbean, it is argued is at least four times more dependent on tourism than any other region in the world (King, LeBlanc, & Lowe, 2000; Williams, 1970).

Wilmsmeier (2006) agrees that the Caribbean is highly dependent on tourism and claims that this sector makes a contribution of 30 percent to 50 percent of the Gross Domestic Product (GDP) of most Caribbean islands. Wilmsmeier singles out Antigua & Barbuda, and the Bahamas as destinations where tourism contributes 74 percent to 89 percent of GDP respectively. Fish and Gunther, (as cited in Seidl, Guiliano, & Pratt, 2006) explain that this situation makes the local economy dependent upon the economic conditions of international consumers and on the global economic opportunities available to the cruise ship industry, rather than local economic conditions.

5.3 Ship as a Destination

Cruise operators have adopted a strategy of defining land-based resorts such as Orlando and Las Vegas as their competitors and thus design, promote and market their vessels as resort destinations. Destination ports, which were once the main attraction, are now seen as "extras along the way" since the vessel itself is the destination, which sells the cruise. Interestingly, the concept *destinational cruising* has now emerged to describe the situation whereby the ports and their attractions are central to the cruise. Coincidentally, this aspect of cruising is regarded as niche marketing (Cartwright & Baird, 1999; Robertsen, "n.d.").

According to Cartwright & Baird (1999) only one-third of the people who take a holiday take a cruise and cruise companies, realising this, decided to get the remainder onboard. This was achieved by building mega vessels, revolutionizing the work processes onboard through automation, and using the latest technologies for vessel propulsion. The resulting economies of scale and improvements in efficiency, lowered operational costs and generally made cruising more affordable for a wider cross section of the society. Additionally, the available space in the now larger vessels, made it possible to include a range of attractions, such as ice-skating rinks, rock-climbing walls, boxing rings, surf pools, golf simulators, and multi-room villas with private pools and in-suite Jacuzzis (Mathisen, 2005; http://www.f-cca.com).

The many innovative facilities and amenities provided onboard served the dual purpose of making cruise vessels an alternative to land-based resorts and gave passengers more opportunities to spend onboard. McKee and Mamoozadeh, (as cited in Seidl, Guiliano, & Pratt, 2006) explained that by marketing the ship as a destination, cruise operators sought to maximize the time (and money) cruisers spent onboard and minimize the time spent in port. This view is supported by Wilmsmeier (2006), who further explained that with depressed pricing, cruise operators combined strategies for increasing onboard revenue with strategies for decreasing costs. This, Wilmsmeier argued, was disadvantageous to port cities, since passengers after spending onboard the ship had less money to spend ashore.

5.4 High Costs of Infrastructural Development

Infrastructural developments, in particular those related to ports, are usually very costly. In most instances, governments, already under strict budgetary constrains, give concessions to taxi and tour operators to help stimulate investments for cruise tourism. This view is shared by Peisley (2006, p. 198) who added that governments must give incentives to private companies to justify the extra investment to expand and improve their fleet. The seasonality of the cruise industry, in addition to the absence of any guaranteed calls from cruise vessels make private investors regard port investments as high risk business ventures. This negative perception has been reinforced by ports investing substantially in their facilities only to have suffered severe loss of cruise business following the 9/11 terrorist attacks on the US. This

was evident in the general movement towards the Western Caribbean, the Mexican ports to be more exact.

In some instances cruise lines indicate a willingness to partner with destination ports to either upgrade berths or construct new cruise facilities. However, their demands are sometimes unreasonable in nature and this will be illustrated by the following examples given of Belize and Jamaica in the Western Caribbean.

In 2004 Carnival Cruise Lines (CCL) negotiated directly with Belizean Prime Minister Said Musa to construct the country's first berthing facility at a cost of US$50 million. The pier, which would accommodate two vessels, would eliminate the need for tendering. The company guaranteed vessel calls for the next twenty five years and effectively assured the generation of US$ 2 billion in revenues for the country. However, since the contract was negotiated without any input from the Cabinet of Ministers or tourism regulatory agencies, it soon came under public scrutiny. An examination of the proposed contract revealed that CCL was entitled to exemptions from all taxes and duties, protected against new or increases in existing fees, and subject to no more than 3% increases in passenger head taxes after 2010. Additionally, Section 7 of the contract actually gave CCL the authority to override any law, policy or regulation which was enacted to limit the number of passengers who came ashore. To date, as was seen in Section 5.1.1, Belize still does not have any berthing facilities which lead to the conclusion that the contract was rejected based on its bias towards CCL (CESD, 2006, pp. 36-40).

The case of Jamaica involved Reynolds' Pier, a multi-purpose port in Ocho Rios, which is used for cruise shipping as well as for the export of sugar and limestone. Cruise lines, having expressed concerns about the size of the port, indicated that Jamaica had lost over 200 calls in 2006 and the opportunity of realising almost US$5 billion in revenues. The cruise lines, therefore, called for Reynolds' Pier to be converted to a tourism-only port and even offered to contribute towards the project if the expansion was approved (Davis, 2006).

The owners of the Pier, Jamaica Bauxite Mining (JBM), pledged their support towards expanding the facility to accommodate more cruise ships on condition that cruise shipping coexist with other commercial activities at Reynolds' Pier. Faced with resistance from JMB, cruise operator RCCL hinted to the possibilities of Freedom of the Seas being diverted to Montego Bay if Ocho Rios could not put measures in placed to show its commitment towards cruise tourism. This strategy of playing ports against each other is at times used by cruise operators to get destination ports to comply with their demands; in most instances they do comply (Davis, 2006).

5.5 Chapter Analysis

The island states of the Eastern, South and Deep Caribbean are among the smallest in the world. As previously mentioned, these islands are heavily dependent on foreign capital and on the economic purchasing power of international customers. This is readily seen from the economic decline experienced by most regional states in the aftermath of 9/11 and the recessionary effect that attack had on the US economy. This economic situation is made worse with many Caribbean islands lying directly in the path of hurricanes and other adverse weather systems originating from Africa. These tropical disturbances bring torrential rains and extremely powerful winds which often leave a trail of damage and destruction. Experts have claimed that the severity of storms is expected to increase due to the occurrence of climate change (Sullivan, 2005).

Table 10: Total External Debt of selected CARICOM states, 1995-2004 (Year-end balance, in $US Millions)

COUNTRIES	1995	2000	2001	2002	2003	2004
Bahamas	305.0	349.0	328.0	309.0	362.0	343.0
Western Caribbean						
Belize	…	433.7	486.6	574.5	749.7	841.0
Jamaica	….	3375.0	4146.0	4348.0	4192.0	5120.0
Eastern Caribbean						
Antigua	286.8	471.8	496.1	540.9	575.8	335.1
St. Kitts & Nevis	54.1	161.5	205.8	261.1	367.1	321.9
South Caribbean						
Barbados	479.0	605.0	539.0	755.0	737.0	792.0
Dominica	103.0	153.5	181.3	208.6	229.5	245.5
St. Lucia	87.5	159.8	169.5	169.7	192.3	221.1
St. Vincent & the Grenadines	116.0	197.3	203.4	258.8	329.9	362.0
Deep Caribbean						
Grenada	86.6	134.7	182.6	320.7	342.9	409.5
Trinidad & Tobago	1876.0	1637.6	1665.9	1549.1	1553.0	1350.6

Source: http://www.eclac.cl/publicaciones/xml/1/26531/LCG2311B_2.pdf

Destination Ports desirous of being on the itineraries of cruise vessels are expected to have their ports in a state of readiness to accommodate the ever-increasing vessel size in terms of berthing space, logistical requirements and related shore attractions. Consideration must, however, be given to the ability of these destination ports to invest large sums of money in infrastructural developments and being severely restricted to effect cost recovery measures. Most destination ports are island states with high levels of debt as illustrated in Table 10 which shows the total external debt of selected CARICOM states for the period 1995 to 2004. The combined costs of Royal Caribbean International's three Freedom Class[25] vessels which amount to US$2.16 billion can easily wipe out the total external debt of the Bahamas, Antigua, St. Kitts & Nevis, Dominica, St. Lucia, and St. Vincent & the Grenadines. From Table 10, the total external debt in 2004 of these islands amounts to US$1.86 billion.

Undoubtedly the cruise industry generates income for destination ports and contributes to their economies. However, the increasing size of vessels, high levels of market concentration, substitutability of destinations, lack of cooperation leading to poor market representation, the ship as a destination, heavy reliance on foreign capital, and the *strings* attached to joint ventures all tend to increase the vulnerability

[25] The construction costs of one Freedom Class vessel is US$720 Million (See Table 9 of Section 5.1)

of destination ports. This high level of vulnerability appears to have placed the balance of power squarely on the shoulders of cruise operators and put destination ports in a position to be easily manipulated.

6 Industry Analysis

The Caribbean, as indicated earlier, receives most of its cruise passengers from the US. From the latter stages of 2006 into 2007 the major cruise operators have been faced with slow US growth and a consequential drop in their net revenue yields. In February 2007, Carnival Corporation (Fairplay, 2007b) indicated that full-year 2007 yields, after the necessary currency adjustments, would actually fall by 1-2 percent. Faced with a 4.2 percent yield decline, RCCL chairman Richard Fain (as cited in Miller, 2007a) disclosed that growth in the Caribbean had leveled off and would most likely reach a plateau in 2008.

Normally, when faced with an economic downturn in the US, cruise companies use the 'trade-down effect' to cushion the accompanying impacts. In that strategy (Miller, 2007b) if low-end consumers drop out, the middle market consumers would normally replace them on cheaper cruises since they too, are expected to be prudent with their spending. This theory is however invalidated if the middle market is not affected in a similar manner to the lower stratum.

Research conducted by Tim Conder of AG Edwards (as cited in Fairplay, 2007a) reveals that the Caribbean fall-off stems from a debt squeeze on lower demographic US consumers. This tends to weaken the 'trade-down effect' and negatively impacts the profitability of cruise operators as previously indicated. Conder is supported by Morgan Stanley's chief US economist Richard Berner who asserts that the bifurcation of consumer spending in the US was fuelled by a growing income inequality, a manufacturing mini-recession, and other housing issues. Berner posits the view that this bifurcation developed over a period of time and would not end soon (Miller, 2007e).

6.1 Strategic Analysis of Cruise Operators

Faced with the situation with fewer Americans traveling to the Caribbean, major cruise operators Carnival Corporation and RCCL are addressing the issue by diversifying from the Caribbean into Europe. RCCL brands, as a means of combating revenue loss in the Caribbean, have decided to sail 51 percent of berth-day capacity in the Caribbean in 2007 as compared to 56 percent in 2006.

Alternatively, Carnival Cruise Lines, which has the highest Caribbean exposure and hence the most vulnerable, is cushioned from the impacts by parent company Carnival Corporation, which owns the most diversified and global brand portfolio. Carnival has therefore added incremental tonnage in Europe and the US West Coast, and plans on undertaking price reduction strategies as a means of bolstering occupancy (Fairplay, 2007c; Miller, 2007a, 2007b, 2007e).

According to Hill & Jones (1998, pp. 77-78), companies in consolidated industries are interdependent and the competitive action of one company may directly impact on the market share of its rivals. If left unchecked, Hill & Jones believed that the response of competitors could lead to a price war and thus constitute a major challenge for all concerned. Cruise operators have displayed a strong desire to avoid price wars and so compete on non-price factors such as advertising and promotions, brand positioning, and product quality, functionality and design.

An example of this type of competition involves ship building and design. Carnival Cruise Lines, which normally focus on sundecks, bars and restaurants, upgrade vessels regularly with a great level of consistency being observed between one generation and the next. Alternatively, Royal Caribbean International upgrades are radically different from each other and introduce a wide array of innovations that are normally considered revolutionary changes for the industry. Examples include ice-skating rinks, rock climbing walls and surf flowriders (Miller, 2007c).

The risk of potential competitors entering the market is severely restricted by cruise operators who resort to building strong brand loyalty, using economies of scale to

reduce operational costs, and the internal transfer of assets. American cruisers have displayed a preference for new vessels and the major cruise operators, being very customer oriented, strive to meet that expressed wish. In the early years of cruising, old tonnage which was removed from the North American market was normally placed on the Sale and Purchase Markets where potential competitors could easily purchase well-maintained vessels. Today, this policy has changed and older tonnage is now transferred to global brands thus making it extremely difficult for new companies to get attractive second tonnage (Miller, 2007d).

Cruise operators, constantly search for opportunities to achieve cost minimization and the trend from the late 90's onwards has been to diversify and invest in destination ports as well as the acquisition of their own islands. Berths as well as shopping facilities are constructed in destination ports, and guaranteed calls are given in exchange for rebates on head tax and other concessions. Cost savings are also realized when vessels are built and equipped with Azipod propulsion systems thus allowing high levels of maneuverability. This drastically reduces the reliance on tugs and, consequently towage, expense.

Cruise operators have been able to boost their revenue generating capacity by innovatively designing vessels to be destinations offering the same and sometimes more amenities than land-based hotels. Sale of land tours are done onboard and the needs of children as well as special interest groups, such as the disabled, are meticulously attended to. Unlike in the past when children were seen as distractions the trend today is to encourage families to bring them along (Speares, 2007).

Land tours are seen as a major revenue stream for cruise operators who reap huge rewards without having to make any investment in that venture. Cruise lines sell tours onboard to cruisers and charge a substantial mark up of almost 50 percent of what attains ashore. Additionally, local tour operators are offered 'preferred' status in exchange for sometimes 40 percent of their gross sales (Seidl, Guiliano, & Pratt, 2006).

In a new spirit of cooperation with destination ports, cruise operators, through the FCCA have introduced the Freestay Caribbean Cruise Conversion Programme (FCCCP). This programme is geared towards enticing cruisers to return for longer vacations at participating destinations. FCCCP is currently running in Antigua, Barbados, Belize, Cozumel, Dominica, Grenada, Jamaica, St. Kitts, St. Lucia, St. Maarten, and the US Virgin Islands. Also, the FCCA, for the past 12 years, has been running a children's essay contest which is aimed at two categories of children; a junior division for those aged 12 and below and a senior division of ages 13-16 years. Cruise operators thru the FCCA build awareness and acceptance in the region by tackling those most likely to bring about future change. The topic for 2006 was "Why Should Your Destination be on a Cruise Ships' Itinerary?" (Peisley, 2006; http://www.f-cca.com)

6.2 Strategic Analysis of Destination Ports

The majority of CARICOM nations are small developing states with limited land space, little economic and human resources, and largely dependent on their tourism sectors. In the past, the region's agricultural produce received preferential access to the European Market and many donor agencies provided aid in the form of grants and other non-monetary methods. However, as alluded to in Section 2.2, the preferential market access was ruled against by the WTO and currently, foreign aid flows to the region have declined substantially. It is believed that donor agencies have shifted focus to the war torn regions of Africa and the Middle East that are in more critical need of aid than the Caribbean. The apparently strong correlation between economic conditions in source markets and the purchasing power of cruisers places the region in a very vulnerable position, especially with tourism being a major GDP contributor (Caribbean Tourism Organization, 2007).

CARICOM, being placed in such a vulnerable position and having lost considerable market share to the Western Caribbean, at times makes decisions that may not be in its long term interests. One pertinent example is that of the region, according to Saltibus, having the capacity to monitor cruise vessels, but deliberately circumventing that task. A number of CARICOM nationals have attended the World Maritime University and have been adequately equipped with the knowledge, skills,

and abilities required for conducting effective port state control surveys. However, surveyors are not given the finance nor the power to perform their tasks for fear that a particular island may be regarded as being too strict and thus removed from future itineraries (D. Saltibus, personal communication, July 15, 2007).

The Caribbean Environmental Health Institute (CEHI) was conceptualized in 1979 by CARICOM's Health Ministers and became a legal entity in 1988. The Institute was established to address environmental health concerns of the English-speaking Caribbean but to date has not undertaken any research related to cruise tourism and its environmental impact. This shortcoming of CEHI, and by extension CARICOM, happens at a time when the trend is to build mega vessels, which progressively bring more cruisers who, of course, generate more wastes. The Caribbean Tourism Organization (2007) did research revealing that the number of cruisers steadily increased from 36 percent of total tourist arrivals in 1980 to 48 percent in 2004. This substantiates the growing importance of cruise tourism to the region and the potential risks that may be posed to the marine environment as well as to land based resources (http://www.cehi.org.lc/aboutus.htm; CEHI, personal communication, June 8, 2007).

There has been a general apathy towards environmental concerns in CARICOM with destination ports being more concerned with economic gain. The very environmental levy charged to cruise vessels and which should be used to undertake research or to help mitigate against environmental degradation at attraction sites is not used for that purpose. Paragraph 3 of page 37 indicates that in most cases the revenues generated by the environmental levy are placed in governments' consolidated fund. Saltibus posits the view that undertaking cruise ship environmental impact studies may be costly and thus are not undertaken by regional states. However, he strongly believes that if those states were not so laid back and had taken advantage of grant funds available in the past, then they would have been more informed about their ports and the environmental impacts of cruise vessels (D. Saltibus, personal communication, July 15, 2007).

Positions of dominance may at times lead to complacency and result in loss of market share. This is readily apparent if cognizance is not taken of demographic

changes within customer groupings or the strategies of potential and existing competitors. Example is given of the West Indies Cricket Team, which, for several years dominated world cricket and for many, playing cricket was seen as an activity, which came naturally to West Indians. Whilst the West Indies were being complacent, their competitors saw cricket as a science and developed special institutions to improve their playing skills. This strategy worked, because today, the West Indies no longer dominates world cricket. Similarities exist between cricket and tourism with some destinations ports having a complacent attitude and thinking that the natural resources of sun, sea, and sand will always be the most sought after attributes of vacationers.

Today, though the Caribbean maintains the accolade of most preferred cruise destination, high levels of complacency still exist. Examples to substantiate this include, but are not limited to, the following:

- Mass production of souvenirs sold throughout the region with the only differentiating factor being the name of destination ports;
- Continued reliance on the North American market and the marketing efforts of cruise operators to get more Americans onboard their ships (paragraph 2, Section 5.3, p.48);
- Reliance on the FCCA to provide guidance on meeting the needs of the cruise industry rather than supplement the information obtained with research that should be undertaken by the Caribbean Tourism Organization. Irrespective of how helpful the FCCA may be, the fact still remains that it's the representative agency of cruise operators and will first serve the interests of its members before that of destination ports.

Cruise operators are transferring capacity away from the Caribbean to Europe and this is expected to reduce the Caribbean's lower berth capacity from 5.8 million in 2007 to 5.5 million in 2008. Destination ports, though aware of this development are investing heavily in their facilities to accommodate increasingly larger vessels. This is a risky venture but since economies of scale generated by mega vessels makes it cheaper to cruise; regional ports want to be in a state of readiness to benefit from the flow of passengers if and when they should occur.

7 Conclusion and Recommendations

7.1 Conclusion

This dissertation had five key objectives and research was therefore undertaken with a view to obtaining information, some more detailed than others to better understand cruise tourism in the Caribbean and to (1) determine and evaluate the economic impact of cruise tourism in the Caribbean; (2) to ascertain the balance of power between cruise operators and destination ports; (3) to evaluate the capacity of destination ports to accommodate future mega-sized cruise vessels; (4) to determine the economic and operational implications to liner shipping, of the priority berthing given to cruise vessels; and (5) are destination ports meeting their obligations as mandated by MARPOL 73/78 and providing port reception facilities for ship-generated wastes?

In determining and evaluating the economic impact of cruise tourism on destination ports, research revealed that the vessel, passengers and crew onboard all generated revenues for destination ports. In the cruise year 2005-2006, cruise tourism contributed US$1.77 billion to the economies of 19 destination ports with 13.7 million passengers spending US$1.3 billion, 2.6 million crew spent US$194 million, and cruise line expenditure amounting to US$267 million. On the whole, 24,540 direct jobs and 16,960 indirect jobs were created from the US$1.77 billion generated within the 19 destination ports.

A closer analysis however reveals that the economic impact of cruise tourism on destination ports is significantly reduced by marketing strategies of cruise operators,

and high levels of competition among destination ports. A current situation which will have dire future consequences for destination ports is that of technological advancements which enhance the manoeuvrability of modern vessels. To begin with, when cruise vessels are marketed as destinations in themselves, this significantly reduces the purchasing power of cruisers when venturing ashore since money is also being spent onboard. Another factor which puts downward pressure on the positive economic impacts of cruise tourism is the intense competition between destination ports, which often results in ports charging very low fees for their services. This lack of co-operation among destination ports adversely affects their earning capacity and places them in vulnerable positions where they may be exploited by cruise operators into giving absurd concessions to be placed on itineraries.

Finally, the Azipod propulsion systems installed onboard recently built cruise vessels may enhance manoeuvrability to the point that tugs are not needed and cost savings thus realised. However, with Azipods, the propeller, rather than being on a fixed shaft and facing away from the vessel's stern now has the ability to rotate 360°. This means that to move a mega-sized vessel away from a berth the propeller must be placed at right angles to the vessel's stern, then considerable power must be applied in order to effect movement away from the berth. This seriously undermines berth foundations and in the near future may pose considerable challenges for destination ports and erode the gains made from cruise tourism.

The balance of power is without doubt in the hands of cruise operators and to really appreciate the amount of power wielded by these operators due cognizance must be given to the situation which unfolds in Table 11.

Table 11: Herfindahl-Hirschmann Index (HHI) for cruise operators for the period 1996 & 2005

Operators	1996			Operators	2005		
	Capacity	%	H		Capacity	%	H
C C	33992.0	34.5	1190	C C	137025	55	3025
RCI	18930.0	19.2	369	RCCL	62246	25	625
P&O Princess plc	16704.0	16.9	286	Star Group	27316	11	121
NCL	8908.0	9.0	81	Others	7552.9	3	9
Celebrity	8278.0	8.4	71	Others	7552.9	3	9
Costa Crociere	7755.0	7.9	62	Others	7552.9	3	9
Cunard	3500.0	3.5	12				
Seabourn	477.0	0.5	0				
Others	120.0	0.0	0				
Total	**98664.0**	**100.0%**	**2071**		**249245.7**	**100.0%**	**3798**

Source: Data taken from G.P. Wild (International) Limited 2006, Cruise Industry News 2005, WTO, 2003 and the HHI concept from Cariou, 2007

According to the DOJ's 1992 Horizontal Merger Guidelines (as cited in Cariou, 2007) a market in which the HHI is:

- below 1000 is "un-concentrated"
- between 1000 and 1800 is "moderately concentrated"
- and above 1800 is "highly concentrated".

In 1996 (Table 11) the HHI was 2068 and the cruise sector at that time was already considered to be highly concentrated. Nine years later, after a spate of mergers and acquisitions, the HHI was calculated to be 3794. This "extreme" level of concentration, substitutability of destinations, trend of marketing the ship as a destination, and the heavy reliance on foreign capital have all contributed to the current vulnerability of destination ports. It has been found that this vulnerability has led to situations whereby cruise operators play islands against each other and display a willingness (case of Grenada in 1993) to remove islands from their itineraries if the *line is not towed*.

Though the economic status of small island developing states necessitates some form of foreign injection of capital, destination ports are practically to be blamed for the current state of affairs. Rather than co-operate and move forward as a cohesive group, utilizing regional agencies such as the Caribbean Tourism organisation, CARICOM states all compete with each other to be the preferred destination on

cruise itineraries. The practice of relying on agencies of cruise operators to market their destinations further deepens the dependency syndrome, to the extent that the industry is being developed to suit the interests of cruise operators.

On the whole, marketing strategies such as the Freestay Caribbean Cruise Conversion Programme and the children's essay contest may be viewed as a means of subtly gaining widespread acceptance for the policies of cruise operators and thus reinforcing their power.

With regards to the capacity to accommodate mega-sized cruise vessels in the future, it was found that most destinations had that capacity. This assertion is being made because in the past when berthing infrastructure and water depth were largely inadequate, cruise vessels berthed at the anchorage and used tenders to transfer passengers from ship to shore and back. However, though there is no limit to the size of vessel a destination port can receive, there are limitations to the size that can be accommodated alongside a physical berth.

Destination ports such as Belize and the Cayman Islands continue to operate as in previous times and still do not have any physical berthing structures. Yet, these ports have such a high intrinsic value, that vessels go to the anchorage and tender ashore. St. Maarten is no exception and during the peak of the cruise season may have as many as six to nine cruise vessels call a day. The point that must be highlighted is that St. Maarten can only accommodate alongside three (3) Voyage Class vessels.

The three main drawbacks to berthing at the anchorage are the logistical headache of getting all passengers ashore in time for their shore excursions, the likelihood of the seas being choppy resulting in a not too comfortable time for tendering, and preference given to passengers rather than crew in going ashore. As discussed earlier, crew expenditure is a potential source of revenue to destination ports and when the numbers going ashore lessen so does their economic contribution.

Worldwide, it is the norm to give priority berthing to cruise vessels and in small ports with multipurpose berths the effects of this policy is more readily apparent. Research revealed that it was common practice for liner trades to either spend several hours at the anchorage waiting for cruise vessels to sail or adjust their arrival times to coincide with their departures. This situation has been in existence for so many years that it can safely be asserted that liner trades in the Caribbean, especially during the cruise season do not operate as per industry standards.

It is of significance to mention that Port Authorities operate on a 24-hour basis and therefore regard night operations as the most practicable alternative available to liner shipping. In most cases, if cruise vessels are expected the following day, container vessels are expected to vacate berths at a specific time irrespective of whether operations are completed or not. When faced with such choices preference is not always given to loading empty containers and the end result is often high levels of congestion in container yards. Port Authorities do not always consider the monetary costs associated with increased waiting time, working at nights during overtime hours, or even their congested yards.

The economic implications of the priority berthing given to cruise vessels are felt through out the economy and is reflected in the prices of consumer and producer goods. This is so because the additional costs incurred when working at nights and the extra surcharge levied by vessel owners and associations, due to long delay in berthing, is often passed on to the final consumer.

The final objective sought to determine whether destination ports were, as per Regulation 12 (1) of Annex I, Regulation 10 (1) of Annex IV, and Regulation 7 (1) of Annex V of MARPOL 73/78, meeting their obligations and providing port reception facilities for ship-generated wastes. Research revealed that the Convention designating the Wider Caribbean region as a Special Area has to date, not taken effect because of the failure of Caribbean states to provide port reception facilities. Reasons for the current situation were not obtained. However, it can reasonably be assumed that cost implications and lack of regional commitment towards environmental protection are possible reasons for this shortfall.

7.2 Recommendations

The individualistic behaviour, the burning desire to make money irrespective of environmental costs, and the lack of co-operation among destination ports is the root of all issues facing destination ports in CARICOM. In light of this, the CSME has been identified as the tool which must be used to remedy the regional ills mentioned above. The Revised Treaty of Chaguaramus which established the CSME also gave birth to the Caribbean Court of Justice (CCJ) and gave the CCJ exclusive and compulsory jurisdiction in interpreting and applying the provisions of the Treaty. In light of this, the CCJ should be regarded as the central agency empowered to take legal action against member state found guilty of breaching of legislation. In that regard, a CSME with the regulatory powers similar to the European Commission should seek to implement the following recommendations:

7.2.1 Formation of tourism/agriculture linkages

The Caribbean's very fertile agricultural soils should be used to develop synergies between agriculture and tourism. Rather than viewing taxes as the only means to increase revenues, linkages between agriculture and tourism should be seen as an alternative form of revenue generation. With such a linkage, fruits, crops and vegetables can be grown and sold to cruise vessels thus lessening the high farmer-unemployment levels which resulted from the WTO ruling mentioned in Section 2.2 on page 2. This will reduce the high dependence on cruise tourism since land-based resorts can also be partners in this enterprise.

7.2.2 Employment of Caribbean nationals

The Caribbean, by virtue of being actively involved in land-based tourism for several years, has a pool of workers who are trained to perform a variety of tourism related functions. Considering that cruise operators are always seeking to minimize operational costs, the Caribbean Regional Negotiating Machinery (CRNM) should approach cruise operators with an employment proposal for regional tourism workers, highlighting the extremely low repatriating costs of CARICOM nationals in

comparison to other nationalities. The Caribbean Maritime Institute should be utilized to provide the requisite level of maritime training to shore-based tourism workers to facilitate their employment onboard cruise vessels.

7.2.3 Development of a cruise ship policy

A cruise ship policy should be developed to address the variances in passenger taxes, and the adhoc arrangements made for the collection, transportation and disposal of ship-generated wastes. Apart from this, the scheduling of vessel calls[26] and over-crowding of shore attraction sites should be attended to with some level of urgency. This policy should therefore incorporate a movement geared towards developing an ecotourism based industry where cruise operators and destination ports alike will develop sound environmental practices for a sustainable tourism product. Decisions on the location and number of port reception facilities must be made as well as the selection of the most feasible cost recovery methods.

7.2.4 Product differentiation

There is a critical need to focus more on factors which differentiate islands from each other and emphasize these differences. Sea, sun, and sand should always be used to market the region but due regard should be taken of the changing demography of cruisers who may be looking for more than the traditional attractions. Example is given of the development and growth of Alaska as a cruise destination, one which is radically different from the Caribbean in every respect. In that regard, innovative ways should be developed to highlight the Caribbean's rich and colourful history. For example, empty army barracks and a little imagination could be used to recreate the atmosphere that prevailed during the times when the world's super powers fought relentlessly for control over this small chain of islands.

[26] At times, five or more vessels may call at a port on one week day whilst other days may only have as little as one or two.

7.2.5 Strategic partnerships with cruise operators

Strategic partnerships with cruise operators should be pursued for investment in port infrastructure, and innovative shore excursions should be developed-those with the "wow" effect but with a "tropical twist". Such partnerships will best serve as an incentive for risk averse investors to invest in the industry and help alleviate the quality, diversity, and sustainability of the region's tourism product. The collective negotiations will foster a more equitable exchange whereby destination ports will not be at risk of being made worse off with draconian deals such as the one mentioned in Section 5.4 on page 49 between Carnival Cruise Lines and Belize.

In this world of wars, genocides, and increasing acts of terror the serenity of the Caribbean will always make the region a much sought after destination. The key stakeholders in the industry, namely cruise operators and destination ports, have a responsibility to develop in the Caribbean cruise industry in a sustainable manner to facilitate the continuance of the industry as well as its long term profitability. Any action contrary to this will ultimately result in cruise operators and destination ports killing the goose that lay the golden egg.

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Appendix A-1: Carnival Corporation

Accounting Year End: 30 November

Item	2004	2003	2002	2001	2000
Profit and Loss					
Sales	9727000	6718000	**4368269**	**4535751**	**3778542**
Of which cruise	9427000	6459000	**4229124**	**4357942**	**3578372**
Profit before interest	2173000	**1383000**	1042059	**1034635**	1007654
Of which cruise **operating** profit	2083000	1371000	**1065797**	0	0
Net income	**1854000**	1194000	**1015941**	926200	**965458**
Income **before** tax	1901000	1223000	**959379**	**913343**	**966552**
Exports	n.a		**1075736**	**1045388**	**597875**
Non-operating income	-5000	8000	42011	**34469**	-17500
Depreciation	812000	**585000**	**382343**	**372224**	287667
Interest expense	267000	168000	78600	120692	41372
Auditors **fees**	n.a	n.a	n.a	n.a	n.a
Director's emoluments	n.a	n.a	n.a	n.a	n.a
Employee pay	n.a	n.a	n.a	n.a	n.a
No. of **employees**	n.a	n.a	n.a	n.a	n.a
Balance Sheet					
Tangible fixed assets	20823000	17522000	10115404	**8390230**	**8001318**
Of which ships	22572000	18134000	**10665958**	**8892412**	**8575563**
Intangible assets	3321000	3031000	**681056**	**651814**	**701385**
Intermediate assets	1764000	1806000	**406236**	**562520**	**579135**
*Total **Fixed*** Assets	25908000	22359000	11202696	**9604564**	**9281838**
Stocks	240000	171000	91310	**91996**	100451
Trade debtors	409000	403000	**108327**	**90763**	**95361**
Other current assets	1079000	**1558000**	**932515**	1776229	**353670**
Total Current *Assets*	1728000	2132000	1132152	**1958988**	**549482**
Total **Assets**	27636000	**24491000**	**12334848**	**11563552**	9831320
Trade creditors	631000	**645000**	**268687**	**269467**	**332694**
Short term loans	1062000	94000	**148642**	**21764**	248219
Other current liabilities	**3341000**	2576000	1202477	1189009	**1134381**
*Total Current **Liabilities***	5034000	**3315000**	**1619806**	1480240	**1715294**
TA Minus TCL	22602000	21176000	10715042	**10083312**	8116026
Long term loans	6291000	**6918000**	**3011969**	**2954854**	2099077
Other UT liabilities	551000	465000	285170	**537681**	**146332**
Total Capital & Reserves	15760000	13793000	**7417903**	**6590777**	**5870617**
Capital Employed	22602000	21176000	10715042	10083312	**8116026**
Earnings Per Share ($)	2.31	1.66	1.73	1.58	1.61
Performance Analysis					
Profitability Ratios					
Return on Total Assets (%)	**6.9**	5.0	7.8	7.9	**9.8**
Return on **Capital** (%)	**8.4**	**5.8**	9.0	9.1	11.9
Pre-tax Profit Margin (%)	19.5	18.2	22.0	20.1	25.6
Return on Investment (%)	9.2	**6.5**	**9.6**	10.2	12.1
Return on Total **Capital and Reserves** (%)	12.1	**8.9**	12.9	13.9	16.5
Liquidity Ratios					
Quick Ratio (Acid Test)	0.30	0.59	0.64	1.26	0.26
Current Ratio	0.34	0.64	0.70	1.32	0.32
Gearing Ratios					
Equity **Gearing** (%)	132.7	128.9	150.9	132.5	148.2
Total Debt/ Net Worth (%)	59.1	65.2	**46.9**	50.1	**45.4**
Income **Gearing** (%)	12.3	12.1	7.5	11.7	4.1
Efficiency Ratios					
Debtor Days Outstanding	15	22	9	7	9
Creditor Days	24	**35**	22	22	32
Stocks/ **Sales** (%)	2.5	**2.5**	2.1	2.0	2.7
Asset Utilisation	0.35	0.27	0.35	0.39	0.38
Working Capital/ Sales (%)	**-33.99**	-17.61	-11.16	10.55	**-30.85**
Sales/ Fixed Assets	0.47	0.38	0.43	0.54	0.47
Sales/ Capital Employed	0.43	0.32	0.41	0.45	0.47
Employee Performance					
Pay/ **Sales** (%)	n.a	n.a	n.a	n.a	n.a
Profit/ Employee	n.a	n.a	n.a	n.a	n.a
Sales/ Employee	n.a	n.a	n.a	n.a	n.a
Capital Employed/ Employee	n.a	n.a	n.a	n.a	n.a
Fixed Assets/ Employee	n.a	n.a	na	n.a	n.a
Pay/ Employee	n.a	n.a	n.a	n.a	n.a

Source: G. P. Wild (International Limited from Company Annual Reports

Year	2005	2004
	$m	
Revenue	**11,087**	**9,727**
Operating costs and expenses	**6,217**	**5,457**
Operating Profit Before Depredation & Amortization	**3,541**	**2,985**
Depredation & **Amortization**	**902**	**812**
Operating Income after D & A	**2,639**	**2,173**
Pre-Tax Income (EBT)	**2,330**	**1,901**
Net Income after tax	**2,257**	**1,901**
Income per share (basic)	**2.80**	**2.31**
Profit Margin	**21.0**	**19.5**

Source: G. P. Wild (International Limited from Company Annual Reports

Appendix A-2: Royal Caribbean Cruises Limited

Accounting Year Ending: 31 December

Item	2004	2003	2002	2001	2000
	$('000s)				
Profit **and** Loss					
Sales	**4555375**	**3784249**	**3434347**	**3145250**	**2865846**
Profit before interest	**784668**	**549062**	**618126**	**507664**	**599691**
Of which cruise operating profit	**753589**	**526185**	**550975**	**455605**	**569540**
Net income	**474691**	**280664**	**351284**	**254457**	**445363**
Income before tax	**474691**	**280664**	**351284**	**254457**	**445363**
Exports	**694656**	527260	**466190**	n.a	n.a
Non-operating income	31079	22877	67151	**52026**	30151
Depreciation	**394136**	**362695**	**339100**	301174	**231048**
Interest **expense**	**309977**	**268398**	**266842**	253207	**154328**
Auditors fees	n.a	n.a	n.a	n.a	n.a
Director's emoluments	n.a	n.a	n.a	n.a	n.a
Employee pay	**487633**	**426462**	**314370**	**283919**	0
No. of **employees**	n.a	n.a	24500	24500	20000
Balance Sheet					
Tangible fixed assets	**10193443**	**9943495**	**9276484**	**8605448**	**6831809**
Of which ships	**11056851**	**10536947**	**9404959**	**8289028**	**6168383**
Intangible assets	**278561**	**278561**	**278561**	**278561**	**288974**
Intermediate assets	**631474**	**526136**	**535743**	**598659**	**396963**
Total Fixed Assets	11103478	**10748192**	10090788	**9482668**	**7517746**
Stocks	**60260**	**53277**	**37299**	**33493**	30115
Trade **debtors**	**84899**	**89489**	**79535**	**72196**	**53609**
Other current assets	**715447**	**431784**	**330909**	**780425**	**226995**
Totat Current Assets	**860606**	**574550**	**447743**	**886114**	310719
Total **Assets**	**11964084**	11322742	**10538531**	**10368782**	**7828465**
Trade creditors	**162973**	**187756**	171153	144070	**158143**
Short term loans	**905374**	**315232**	**122544**	**238581**	109926
Other current liabilities	**1205155**	**1001539**	**876236**	**729998**	**644311**
Total Current ***Liabilities***	**2273502**	**1504527**	**1169933**	**1112649**	**912380**
TA Minus TCL	**9690582**	**9818215**	**9368598**	**9256133**	**6916085**
Long term loans	**4826570**	**5520572**	**5322294**	**5407531**	3300170
Other UT liabilities	**59492**	**34746**	11610	92018	0
Total Capital & Reserves	**4804520**	**4262897**	**4034694**	**3756584**	**3615915**
Capital Employed	**9690582**	**9818215**	**9368598**	**9256133**	**6916085**
Earnings Per Share (UD$ diluted)	2.26	1A2	1.76	1.32	2.31
Performance Analysis					
Profitability Ratios					
Return on Total Assets (%)	4.0	**2.5**	**3.3**	2.5	5.7
Return on **Capital** (%)	**4.9**	2.9	3.7	2.7	**6.4**
Pre-tax Profit Margin (%)	10.4	7.4	10.2	8.1	15.5
Return on Investment (%)	7.4	**5.4**	**6.5**	**5.3**	**8.5**
Return on Total **Capital and Reserves** (%)	**9.9**	**6.6**	8.7	**6.8**	12.3
Liquidity Ratios					
Quick Ratio (Acid Test)	0.35	0.35	0.35	0.77	0.31
Current Ratio	0.38	0.38	**0.38**	0.80	0.34
Gearing Ratios					
Equity **Gearing** (%)	67.1	60.4	62.0	**56.8**	**85.8**
Total Debt/ Net Worth (%)	126.6	**146.5**	145.0	162.3	102.5
Income **Gearing** (%)	39.5	48.9	**43.2**	**49.9**	25.7
Efficiency Ratios					
Debtor Days Outstanding	7	9	8	8	7
Creditor Days	13	18	18	17	20
Stocks/ Sales (%)	1.3	1.4	1.1	1.1	1.1
Asset Utilisation	0.38	0.33	**0.33,**	0.30	0.37
Working **Capital/** Sales (%)	-31.02	-24.57	-21.03	-7.20	-20.99
Sales/ Fixed Assets	0.45_	0.38	0.37	0.37	0.42
Sales/ Capital Employed	0.47	0.39	0.37	0.34	0.41
Employee Performance					
Pay/ Sales (%)	10.70	11.27	9.15	9.03	0.00
Profit/ Employee	n.a	n.a	**14338**	10386	22268
Sales/ Employee	n.a	n.a	140177	**128378**	143292
Capital Emplo -d/ Em Jo -e	n.a	n.a	**382392**	377801	**345804**
Fixed Assets/ **Employee**	n.a	n.a	**378632**	351243	**341590**
Pay/ Employee	n.a	n.a	**12831**	11589	0

Source: G. P. Wild (International Limited from Company Annual Reports

Year	2005	~ 2004
	$	$
Passenger ticket revenues	**3,609,487**	**3,359,201**
Onboard and other revenues	**1,293,687**	**1,196,174**
Total revenues	**4,903,174**	**4,555,375**
Operating costs	**2,994,232**	**2,819,383**
Operating income	**871,565**	**753,589**
Net income	**715,956**	**474,691**
Earnings Per Share (Basic)	**3.47**	**2.39**
Assumed profit margin (%)	**14.6**	**10.4**

Source: G. P. Wild (International Limited from Company Annual Reports

Appendix A-3: Star Cruise Group

Accounting Year Ending: 31 December

Item	2004	2003	2002	2001	2000
	$('000s)				
Profit **and** Loss					
Sales	**1,636,405**	**1,618,208**	**1,573,588**	**1,381,566**	**1,326,743**
Of which cruise	**1631439**	**1615724**	1,570,507	**1,369,051**	1,312,715
Profit **before** interest	**120466**	**-20496**	**160,842**	**84,541**	**159,799**
Of which cruise operating profit	**135465**	**79049**	73406	**73406**	**152306**
Net income	-9006	**-124473**	**50931**	**-16043**	-44000
Income before tax	**-8035**	-122810	**52,406**	**-14,284**	-20,318
Exports	0	0	0	0	0
Non-operating income	**-20935**	-8510	-9110	19667	-180117
Depreciation	**181909**	**197349**	**176166**	**154417**	**139929**
Interest **expense**	107566	**93804**	**99326**	**118492**	0
Auditors **fees**	**995**	**856**	912	1073	**858**
Director's emoluments	**6871**	**7809**	**6,331**	4,692	**4,648**
Employee pay	**338159**	**306769**	**249,577**	224,823	**206,898**
No. of **employees**	n.a	n.a	n.a	11,976	n.a
Balance Sheet					
Tangible fixed assets	**3823302**	**3626873**	**3558448**	**3296768**	**2888148**
Of which ships	**3737811**	13357000	**3084361**	**3084361**	**2716491**
Intangible assets	**605286**	**621750**	**609733**	**626138**	**639036**
Intermediate assets	100780	**39839**	18052	**10664**	20512
Total Fixed Assets	**4529368**	**4288462**	**4186233**	**3933570**	**3547696**
Stocks	**42059**	**38075**	**40302**	32871	**28329**
Trade debtors	**12089**	**17423**	**16,424**	**25,398**	19,920
Other current assets	**401597**	**452031**	**515,738**	227,147	**333,312**
Total Current Assets	**455745**	**507529**	**572464**	**285416**	**381561**
Total Assets	**4985113**	**4795991**	**4758697**	**4218986**	**3929257**
Trade creditors	**83481**	**98950**	108774	**109293**	76092
Short term loans	**179159**	1074226	**340,187**	**94,551**	**263,573**
Other current liabilities	**483324**	**426538**	**387,314**	**310,169**	**288,418**
Total Current Liabilities	**745964**	**1599714**	**836275**	**514013**	**628083**
TA Minus TCL	**4239149**	**3196277**	**3922422**	**3704973**	**3301174**
Long term loans	**2238904**	**1199567**	**2093838**	**2120564**	**1696044**
Other UT liabilities	**186273**	**188194**	**9,054**	10168	10193
Total Capital & Reserves	**1813972**	**1808516**	**1819530**	**1574241**	**1594937**
Capital Employed	**4239149**	**3196277**	**3922422**	**3704973**	**3301174**
Earnings per share (basic, cents)	-0.17	-2.51	n.a	n.a	n.a
Performance Analysis					
Profitability Ratios					
Return on Total Assets (%)	-0.2	-2.6	1.1	-0.3	-0.5
Return on **Capital** (%)	-0.2	-3.8	1.3	-0.4	-0.6
Pre-tax Profit Margin (%)	-0.5	-7.6	**3.3**	-1.0	-1.5
Return on Investment (%)	**2.3**	-0.7	**3.6**	2.7	-0.6
Return on Total **Capital and** Reserves (%)	-0.4	-6.2	**2.9**	-0.9	-1.3
Liquidity Ratios					
Quick Ratio (Acid Test)	0.55	0.29	0.64	0.49	0.56
Current Ratio	0.61	0.32	0.68	0.56	0.61
Gearing Ratios					
Equity **Gearing** (%)	57.2	70.8	61.9	**59.5**	**68.3**
Total Debt/ Net Worth (%)	200.1	166.4	201.2	**233.6**	205.0
Income **Gearing** (%)	**89.3**	-457.7	61.8	140.2	0.0
Efficiency Ratios					
Debtor Days Outstanding	3	4	**4**	7	5
Creditor Days	19	22	**25**	29	21
Stocks/ Sales (%)	**2.6**	2.4	**2.6**	**2.4**	2.1
Asset Utilisation	0.33	0.34	0.33	0.33	0.34
Working Capital/ Sales (%)	-17.74	-67.49	-16.76	**-16.55**	**-18.58**
Sales/ Fixed Assets	0.43	0.45	0.44	0.42	0.46
Sales/ Capital Employed	0.39	0.51	0.40	0.37	0.40
Employee Performance					
Pay/ Sales (%)	20.66	**18.96**	15.86	16.27	15.59
Profit/ Employee	n.a	n.a	n.a	-1193	n.a
Sales/ Employee	n.a	n.a	n.a	**115361**	n.a
Capital Employed/ Employee	n.a	n.a	n.a	**309366**	n.a
Fixed Assets/ Employee	n.a	n.a	n.a	275281	n.a
Pay/ Employee	n.a	n.a	n.a	18773	n.a

Source: G. P. Wild (International Limited from Company Annual Reports

Year	2005	
	Q1 to Q3	
	$	$
Total revenues	**1,443,186**	**1,282,808**
Operating costs	**974,335**	**838,473**
Operating income	**131,963**	**115,365**
Pre-tax profit	**46,122**	**28,911**
Net income	**43,613**	**28,241**
Earnings Per Share (Basic)	**0.82**	**0.53**
Profit margin (%)	**32**	**2.3**

Source: G. P. Wild (International Limited from Company Annual Reports

Appendix B: Break down of Cruise Tourism Expenditure by Segment, 2005-2006 Cruise Year

Destinations	Totat Pax Onboard (Thousands)	Pax* Onshore Visits (Thousands)	Total Pax Expenditures ($US Millions)	Totat Crew Onboard (Thousands)	Crew Onshore Visits (Thousands)	Total Crew Exp.** ($US Millions)	Cruiseline Exp.** ($US Millions)	Total Exp.** ($US Millions)	Direct Employment	Indirect Employment	Total Employment	Population	Direct Employee Wage Income ($US Millions)	Indirect Employee Wage Income ($US Millions)	Total Employee Wage Income ($US Millions)
Bahamas	1,981.8	1,585.5	96.0	799.4	279.8	5.6	42.8	144.4	2,235	1,730	3,965		34.3	26.6	60.9
Total Bahamas	**1,981.8**	**1,585.5**	**96.0**	**799.4**	**279.8**	**5.6**	**42.8**	**144.4**	**2,235**	**1,730**	**3,965**		**34.3**	**26.6**	**60.9**
Belize	726.6	610.4	53.6	288.6	72.1	1.3	9.3	64.2	1,215	670	1,885	300,000	12.9	7.0	19.9
Cayman Islands	1,857.2	1,671.5	138.3	747.7	261.7	12.0	29.4	179.7	2,090	1,615	3,705	23,800	37.2	28.8	66.0
Cozumel	2,142.3	1,713.9	157.0	891.0	356.4	17.4	39.5	213.9	3,715	2,230	5,945		25.4	15.4	40.8
Costa Maya	757.4	605.9	46.2	295.0	147.5	7.4	6.6	60.2	1,115	655	1,770		7.3	4.4	11.7
Key West	907.1	852.6	47.1	368.1	147.3	9.0	12.6	68.7	755	505	1,260		17.2	18.2	35.4
Total Western Caribbean	**6,390.6**	**5,454.3**	**442.2**	**2,590.4**	**985.0**	**47.1**	**97.4**	**586.7**	**8,890**	**5,675**	**14,565**		**100.0**	**73.8**	**173.8**
Antigua	460.4	391.4	32.9	197.2	78.9	4.1	4.0	41.0	720	495	1,215	65,962	6.1	4.3	10.4
Puerto Rico	1,296.5	1,186.6	115.0	509.6	203.9	18.6	36.4	170.0	2,225	1,640	3,865	3,522,037	30.4	25.0	55.4
St. Kitts & Nevis	117.2	93.8	5.4	48.8	19.5	0.4	0.9	6.7	125	80	205	42,291	0.9	0.6	1.5
St. Marteen	1,449.2	1,304.3	189.3	724.5	289.8	46.2	10.9	246.4	3,210	2,380	5,590	61,967	57.0	42.3	99.3
US Virgin Islands	1,812.8	1,631.5	288.3	703.0	351.5	50.6	22.7	361.6	3,525	2,640	6,165	101,809	77.7	57.9	135.6
Total Eastern Caribbean	**5,136.1**	**4,607.6**	**630.9**	**2,183.1**	**943.6**	**119.9**	**74.9**	**825.7**	**9,805**	**7,235**	**17,040**		**172.1**	**130.1**	**302.2**
Barbados	506.6	405.3	45.3	207.1	82.8	6.3	5.7	57.3	950	685	1,635	257,083	9.7	7.1	16.8
Dominica	223.5	190.0	9.7	88.5	35.4	2.6	1.5	13.8	255	135	390	71,183	1.9	1.1	3.0
Martinique	91.1	77.5	3.0	46.9	18.8	0.5	0.5	4.0	70	45	115	363,031	0.5	0.3	0.8
St. Lucia	432.2	345.7	28.6	190.7	76.3	2.4	3.8	34.8	685	350	1,035	152,335	4.5	2.2	6.7
Total South'n Caribbean	**1,253.4**	**1,018.5**	**86.6**	**533.2**	**213.3**	**11.8**	**11.5**	**109.9**	**1,960**	**1,215**	**3,175**		**16.6**	**10.7**	**27.3**
Aruba	563.1	478.6	54.2	223.9	89.6	7.0	5.0	66.2	985	725	1,710	65,100	14.1	10.5	24.6
Cartagena	38.1	32.4	3.7	17.2	5.2	0.2	0.6	4.5	95	45	140		0.5	0.3	0.8
Curacao	298.5	253.8	13.5	120.3	42.1	1.6	2.9	18.0	250	170	420	143,816	4.4	3.1	7.5
Grenada	289.6	246.2	13.2	125.0	50.0	1.3	1.8	16.3	320	165	485	96,600	2.1	1.0	3.1
Total Deep Caribbean	**1,189.3**	**1,011.0**	**84.6**	**486.4**	**186.9**	**10.1**	**10.3**	**105.0**	**1,650**	**1,105**	**2,755**		**21.1**	**14.9**	**36.0**
Totals	**15,951.2**	**13,676.9**	**$1,340.3**	**6,592.5**	**2,608.6**	**$194.5**	**$236.9**	**$1,771.7**	**24,540.0**	**16,960.0**	**41,500.0**		**$344.10**	**$256.10**	**$600.2**

Source: Own compilation from Wild, 2006,WTO, 2003; Moonie et al, 1998; Cruise Industry News, 2005