

Driving Tourism in the Eastern Caribbean

The Case for a Regional Ferry

Julie Barbet-Gros, Brian Samuel, Rachel (Raha) Shahidsaless,
and Trang Thu Tran



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Barbados: The Caribbean Tourism Organization (CTO); The Tourism Authority; The Port Authority; Invest Barbados.

Grenada: The Hotel and Tourism Association (GHTA); The Ministry of Finance; The Ministry of Tourism; Osprey Lines; The Port Authority; Grenada Tourism Authority.

St. Vincent and the Grenadines: The Ministry of National Security, Air & Sea Port Development; Jaden Sun; The Port Authority; Paradise Beach Hotel; SVG Tourism Authority.

St Lucia: The Trade Policy Unit of the OECS Secretariat; The Tourism Board; Invest Saint Lucia; The Ministry of Finance; St. Lucia Air and Sea Port Authority (SLASPA); L'Express des Iles; The Windjammer Landing Hotel.

Dominica: HHV Whitchurch & Co Ltd; The Ministry of Finance; Discover Dominica Authority; Invest Dominica; Dominica Air and Sea Ports Authority; The Fort Young Hotel.

Antigua and Barbuda: Antigua and Barbuda Investment Authority; Antigua and Barbuda Port Authority; The Ministry of Finance; The Antigua and Barbuda Cruise Tourism Association; The Ministry Tourism and Aviation; Antigua and Barbuda's Business Alliance.

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Abbreviations

ADR	Average Daily Rate
ARC	Atlantic Rally for Cruisers
CARICOM	Caribbean Community
CDB	Caribbean Development Bank
CIA	Central Intelligence Agency
CPL	Caribbean Professional League
CTO	Caribbean Tourism Organization
ECCB	Eastern Caribbean Central Bank
ECCU	Eastern Caribbean Central Union
GDP	Growth Domestic Product
HSC	High speed craft
IMF	International Monetary Fund
IMO	International Maritime Organization
LCL	Less than a container load
LIAT	Leeward Island Air Transport
OECS	Organization of Eastern Caribbean States
SKIPA	St Kitts Investment Promotion Agency
SOLAS	Safety of life at sea
T&T	Travel and tourism
TIFS	Twin Islands Ferry Service
UNWTO	United Nations World Tourism Organization
US	United States of America
WEF	World Economic Forum

Executive Summary

The impact of the global 2008 crisis on Organization of Eastern Caribbean States (OECS) economies was particularly hard and has lingered on until today. Poverty was relatively high in the OECS (between 18 and 38 percent) before the crisis and is likely to have worsened since. The main priority of OECS governments is to enable a resumption in growth in a more sustainable, inclusive and resilient manner. As evidenced in the paper, as an important source of employment and a key economic pillar, tourism plays a significant role in resuming growth in the region. However, despite ongoing reforms in the sector, the region's share of global tourism has been declining, and the industry's competitiveness is low in comparison to comparator countries. This paper will argue that a regional ferry system could potentially make a positive contribution to tourism in the OECS and, therefore, it is worth studying further through a separate feasibility assessment.

As it relates to competition between a ferry system and the cruise industry, as the paper will demonstrate, the class of travelers who uses the ferry is very different from cruises, with the former serving stay-over visitors who may be interested in traveling to multiple destinations. The paper will show that there is evidence of both complementary and substitution effects between cruise and stay-over tourism in the OECS. However, existing estimates suggest that substitution of cruise for stay-over tourists would likely result in a net positive impact on the economy. Moreover, as it relates to travel within the region, the paper will show that there is little cross-elasticity of demand between air and sea travel, and only significant changes in price or trip durations could cause passengers to switch from one mode of transport to the other. A regional ferry system would encourage a new class of travelers, and, therefore, will allow the region to tap into a potential new market of tourists, including local, intra-regional tourists who find it difficult to travel by air, as well as stay-over international tourists who may be interested in traveling to more than one island.

Regional ferries are not new to the OECS: the region has had a regional ferry system in the past and, currently, there are a number of sub-regional or country-level ferry systems that are operational (appendix B). The existing system is a mix of fast and slow ferries. As discussed in the paper, the ferry system in the region faces significant challenges (regulatory, infrastructural and institutional) that would prevent them from offering regional-level services. These challenges have also affected the fate of many regional ferry proposals by different potential investors to the governments in the region.

In particular, one of the key obstacles facing the development of the OECS ferry system is that the ferry proposals in the past have, generally, not been coordinated regionally. Rather, they have, generally, been the result of random discussions between individual governments

and ad-hoc investors. Investor interest for a regional ferry exists, but a regionally-organized, transparent and professionally-managed procurement process is essential for the success of a regional ferry system.

Of course, in addition to a regional ferry system, it is important to be aware of the other factors that would be essential to boost tourism in a sustainable manner. These include improving the experiences of tourists in any one destination, improving the quality of service and the productivity of the tourism sector and better tourism promotion and packaging. Moreover, if tourism is to have spillover effects to the rest of the economy by having a multiplier effect on growth and job creation, it is also important to strengthen the linkages between tourism and other sectors in the economy that support it, such as agribusiness, and to improve the productivity of those sectors. However, these issues will need to be explored through a separate study.

This paper serves as background for a feasibility assessment of a regional ferry system, notably by providing data and statistics on the movement of people, cargo, prices of moving within the region, existing fleet of ferries, etc. It notably draws interesting lessons from two successful regional ferry systems: the Greek ferry system and the Baltic Sea ferry system.

As it relates to the movement of cargo through a regional ferry system, based on available evidence, there is a relatively low level intra-regional trade, and an excessive number of available vessels in the region. However, there are significant shortcomings in the way they provide services and operate (unscheduled services, old and sometimes unsafe vessels, with poor operational methods of loading, unloading and carrying cargo). It is not clear whether a new regional ferry system *per se* would be able to better facilitate the movement of cargo in the region, or, whether improvements to the existing cargo services (e.g., improved logistics and better coordination amongst shippers, more reliable services, etc.), combined with a better business environment for trade would be sufficient to give goods produced in the OECS access to a regional market. These are issues that ought to be studied separately, and are important factors that will also affect the feasibility of a regional ferry system.

Nevertheless, as it relates to the movement of motor vehicles, what is evident is that it is almost impossible within the region (due to customs laws and regulations that do not acknowledge the temporary importation of vehicles). There are no cross-border ro-ro ferries that would allow trucks carrying cargo to get on the ferry and off at the destination. The inability of moving motor vehicles within the region also affects tourists who may be interested to travel within the region by car.

A follow-up feasibility assessment should look into the extent in which a new regional ferry system of passengers and cargo could be integrated or linked to the current ones, and should provide a detailed business and investment plan for a regional ferry system, with financial projections.

The recommendations of the present paper have been summarized in **Table 4.1**.

CHAPTER 1

Background: OECS Tourism Profile and Trends

1.1 Introduction

The 2008 global crisis exposed the existing vulnerabilities in the Organization of Eastern Caribbean States (OECS). As a result, the region continues to experience weak growth, elevated fiscal imbalances, and heightened risks to financial system stability. Per capita income in the region declined on average by 4.5 percent between 2008 and 2012.

The OECS has not yet recovered from the effects of the 2008 global economic crisis. Economic growth in the region contracted for four consecutive years after the onset of the global economic crisis in 2008 (on average, by 1.5 percent per year) and led to a cumulative drop of six percent in total output during 2009–12. Although there has been a slight rebound in 2013, with regional real output growth averaging 0.7 percent, economic activity in most countries has remained sluggish.

The main priority for the region is to resume growth in a sustainable, inclusive and resilient manner, and tourism, as an important source of employment and a key economic pillar, has a significant role to play. In fact, tourism accounts for approximately 60% of export earnings, 40% of gross domestic product (GDP), and 40% of total employment in the region (Table 1.1).

The role of tourism has increased in the OECS over the past two decades (Figure 1.1). A general trend has been a reduction in the role of agribusiness (and, in some cases, manufacturing) and an increase in the role of tourism.

The tourism sector will continue to be the main pillar of economic growth for these small island economies, which have limited options for economic diversification (World Bank 2012a), except in sectors linked to tourism. Therefore, a competitive and robust tourism sector is critical, especially since this cross-cutting sector has significant opportunities for linkages to other areas of economic activity, including construction, agribusiness, and financial services and could have spillover effects on the rest of the economy.

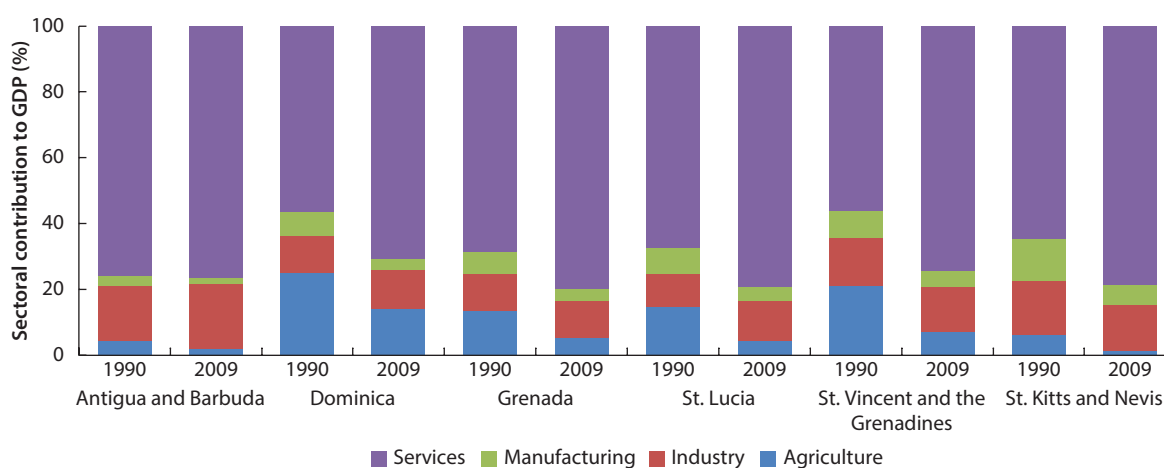
There is a strong case for developing strategies for strengthening the stay-over tourism versus cruises in the region. The OECS ratio of cruise to stay-over arrivals (air and sea) roughly averages 2.5 in 2011 (Figure 1.2). However, stay-over visitors spend significantly more than cruise-ship passengers—roughly US\$50 vs. US\$1,000 per visitor for the OECS in 2012—and such differences are important in terms of the impact of tourism in local economies (Briceno-Garmendia et al. 2013). While passengers of a cruise ship consume by

Table 1.1 Travel and Tourism Sector Economic Contribution, 2013*Percent*

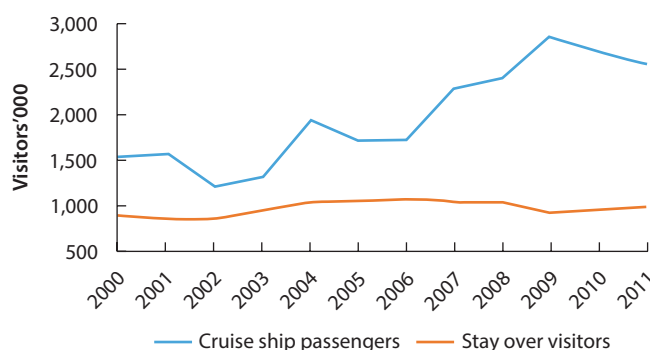
<i>Country</i>	<i>Direct contribution to GDP</i>	<i>Total contribution to GDP</i>	<i>Direct contribution to employment</i>	<i>Total contribution to employment</i>	<i>Visitor exports contribution to total exports</i>
Antigua and Barbuda	16.4	62.9	16.8	57.8	76.1
Barbados	10.9	36.2	11.1	35.7	48.6
Dominica	10.0	32.0	9.1	29.1	52.0
Grenada	5.8	20.3	5.4	18.8	44.7
St. Kitts and Nevis	6.2	22.5	6.1	21.4	37.5
St. Lucia	13.2	38.8	18.6	42.1	61.3
St. Vincent and the Grenadines	5.8	21.1	5.4	19.3	49.8

Source: World Travel and Tourism Council 2014.

Note: Direct contributions include spending in relation to travel and tourism by residents, businesses and government, and visitor exports on tourism related commodities (accommodation, transportation, entertainment and attractions) in relation to DGP, and for employment, jobs provided in these industries (accommodation services, food and beverage services, and cultural, sports and recreational services. Indirect contribution include capital investment in travel and tourism; government spending to support tourism; and supply chain effects.

Figure 1.1 The Role of Services (Defined as Tourism) in the OECS

Source: World Bank 2012a.

Figure 1.2 OECS Cruise versus Stay-Over Tourist Arrivals

Source: Briceno-Garmendia et al. 2014.

going on local excursions, and going shopping at the country being visited, stay-over visitors spend much more on hotels, restaurants, excursions, transportation, and shopping per stay. In their recently published paper, Briceno-Garmendia, et al. state that:

“It should not come as a surprise that between 2000 and 2011, the number of international cruise-ship passengers increased about 66% while the income generated by all passengers measured in terms of traceable spending increased only about 25% from approximately US\$95 billion in 2000 to US\$1,180 million in 2011” (Briceno-Garmendia et al. 2014, 74).

These arguments make a strong case for developing the strategies for increasing cruise passengers’ local spending (e.g., through improving the experiences of cruise passengers on each island) and, over time, increasing the number (and, more importantly, spending) of stay-over visitors.

In addition, going forward, there is potential for the OECS governments to utilize cruise tourism as a strategic complement to stay-over visits. Survey data from Curacao and the Cayman Islands indicate that cruise visits can act to increase future demand for stay-over tourism (Carolina and Pau 2010; Shamsub et al. 2006). The results confirm several important factors that could increase the willingness to return such as information available to tourists and entertainment opportunities on the island.

For the region to gain a larger share of the global tourism market and drive growth in the region, it is important to develop a strategy that would increase (a) international tourist flows to the region, (b) intra-region travel by foreign tourists and local residents, and, (c) tourism expenditure and receipts per tourist. Any increase in the number of tourists must be planned carefully, so that it does not exceed the carrying capacity of the islands, and so that it manages and mitigates the negative effects of an increased tourism (littering, congestion, environmental damage, etc.). At the same time, for tourism to have a multiplier effect on regional growth and job creation, and to contribute to a reduction of poverty and increased shared prosperity, it is important to strengthen the sector’s linkages with the rest of

the economy.¹ To achieve these goals, the following could be important contributors: (a) the development and implementation of a regional tourism promotion, including improved information sharing and connectivity with distribution channels; (b) the facilitation of the movement of people and goods within the OECS, including the removal of regulatory and infrastructure barriers; (c) improvements to the competitiveness of the tourism sector in ways that are sustainable and inclusive, including the quality of services and variety of the experiences offered to tourists at any one destination²; and (d) improvements to the productivity of (and strengthening the linkages with) the other sectors (such as agribusiness) that support tourism³.

This paper will be focusing on points (a) and (b),⁴ and will argue that important contributions to the growth of tourism in the region could come from a strategy that would encourage regional collaboration⁵ (e.g., by branding the OECS as one destination), allow

¹ Strengthening linkages between tourism and agribusiness is particularly important. According to a survey conducted in 2008 by the World Bank Group with hotels, cruise lines and marinas in the region, while most hotels procure services locally, very few purchase local agricultural goods, as local production is neither competitive nor large enough to accommodate hotels' demand. According to this survey, only 32% of tourism food demand is currently sourced locally (World Bank 2008). In fact, most of the food products that are imported account for a higher share of a hotels' total expenditure. There is, therefore, significant room for the linkages between the two sectors to be strengthened. According to the survey, most hospitality operators, particularly hotels, demonstrate high willingness to increase the share of local products and services purchased; in addition, local suppliers of goods and services are willing to focus more of their efforts on the needs of the tourism industry.

² Some issues related to non-competitive tourism offering and poor service quality not necessarily covered in this paper that may be important to tackle include: inconsistent and weak application of quality standards on tourism accommodation and services; poor development and management of many tourism assets and access leading to tourism attractions, and the deterioration of what already exists; poor access to credit to develop new product offerings or to improve existing standards; lack of a coordinating mechanism to maintain a dialogue between tourism service providers to package (and promote) new products; low level of tourism skills, due to disconnect between tourism training programmes and the needs of the private sector, as well as weakness in soft skills of those who offer services to tourists; and the region's limited visibility. In addition, there is competition amongst the countries over the same target markets as opposed to coordination to attract new inbound tourists to the region.

³ A more productive and resilient agriculture sector, including better linking producers and processors to market, can have a considerable impact on reducing rural poverty and unemployment, particularly among the youth. Bolstering selected value chains, with emphasis on developing productive alliances in marginalized areas, will benefit the most vulnerable segments of the population and increase the prosperity of local communities.

⁴ While points (c) and (d) are also important in the development of a regional tourism approach, they are beyond the scope of this paper, and require a separate analysis.

⁵ It is important to emphasize that a regional approach is recommended as one component of a broader tourism strategy. In this regard, the importance of country-level efforts to make improvements to the competitiveness of the tourism sector, including the quality and variety of the experiences offered to tourists, should not be undermined. These merit an independent study, which would be beyond the scope of the current paper.

international tourists to move more easily from one island to another (i.e., “island-hopping” or multi-destination travel), and make it easier for local residents (and goods, particularly motor vehicles) to move better among the various islands through a possible regional ferry system⁶. For reasons discussed in the paper (in particular, the large supply of existing vessels for carrying cargo in the region), the question of the contribution of a new regional ferry system to the better movement of cargo requires further analysis through a more in-depth feasibility study of the ferry system.

This paper is divided into four parts. Chapter 1 provides the background information on tourism related reforms and trends in the region, and benchmarks the performance of the sector in the region against the broader Caribbean region and the world. Chapter 2 provides a justification for why the concept of “island-hopping” and a regional ferry system could contribute to the development of tourism in the OECS region, and why, therefore, it would be worthwhile to undertake an in-depth feasibility assessment for the development of this system. This section also provides some of the key obstacles for the development of a regional ferry system, which need to be addressed if the system is to be successful. Chapter 3 provides some background key data and information for the feasibility assessment, including a benchmarking against the Greek and Baltic systems, and the potential competition between air and ferry, as well as between stay-over versus cruise tourism. Chapter 4 provides a set of recommendations and next steps.

1.2 Snapshot of Ongoing Reforms in Tourism in the OECS

The OECS countries, individually and collectively, are actively promoting their tourism industries. **Table 1.2** shows some of the strategies being pursued by OECS governments. As can be seen from the table, reforms related to transportation are echoed in a number of country reform agendas.

OECS governments understand the importance of regional tourism collaboration. The OECS Tourism Policy of 2011 acknowledges that more can be achieved through synergy and collaboration “than individual states can achieve on their own.” The policy also highlights the importance of establishing “a mechanism for joint tourism marketing and promotion” and refers to island-hopping as one possible strategy. The Protocol of the Eastern Economic Union, contained in the Revised Treaty of Basseterre Establishing the Organization of Eastern Caribbean States Economic Union also emphasizes the importance of regional collaboration. For example, Article 19.2 of the Protocol states that: “within this context, each Protocol Member State shall work towards the progressive harmonization of air and maritime transport policies, which encourage the orderly growth of the sector, particularly, with respect to tourism and trade.” Article 21 of the Protocol states that: “Protocol Member States agree to establish a mechanism for joint tourism marketing and promotion.”

⁶It is important to point out that improving the air transport is not the focus of this paper, but an important issue that has been studied before, and should be pursued seriously.

Table 1.2 Eastern Caribbean Tourism Promotion Strategies

<i>Individually</i>	
Antigua and Barbuda	Working to improve the investment climate, including improving performance in Doing Business indicators; building new airport terminal; promoting yachting
Barbados	Investment in high-end attractions (marinas, golf, etc.); promoting sports and convention tourism; developing new cruise ship pier
St. Kitts and Nevis	Several high-end hotel projects under construction, including Hyatt, marina etc.; building new cruise ship pier to capitalize on growing cruise market
Dominica	“The Nature Isle” promotes unspoilt scenery, rain forests and culture; three high-end eco-lodges recently opened; seeking to develop linkages with French territories
St. Lucia	Continuing to attract high-end tourist projects; emphasis on events tourism, such as St. Lucia Jazz Festival; promoting yachting via Atlantic Rally for Cruisers (ARC); yachting promotion with Taiwan (major yacht manufacturer); seeking private operator for airport expansion
St. Vincent and the Grenadines	Promotion of yachting; new international airport on the mainland; seeking to expand stock of rooms and airlift via new airport
Grenada	Re-branded as “Pure Grenada”; creation of new Tourist Authority; capitalize on recent opening of Sandals Hotel; promotion of yachting and eco-tourism
<i>Collectively</i>	
Joint OECS representation at yachting shows in Annapolis, Toronto, Fort Lauderdale	
Coordinated OECS strategies to harmonize Customs and Immigration border procedures to ease freedom of intra-regional travel	
Collectively identified solutions and joint actions to streamline border clearance processes during a two-day workshop in May 2014. Through World Bank Group assistance, a new software system was developed to connect customs administrations to border control agencies and allow for a more seamless review and approval of import declarations. Starting in July, this electronic tool will be installed in Bureaus of Standards in Dominica, St. Lucia and Grenada	
Common OECS tourism policy set up by OECS countries in 2011	
SAILCLEAR: Easing of entry regulations for visiting yachts among OECS countries	

Despite its importance, other than a few collaborative initiatives in the area of tourism (Table 1.2), regional cooperation is generally weak. Since around the mid-1990s, for example, individual countries have been constructing their own international airports and paying airlines to fly into their countries. St. Vincent and the Grenadines is reportedly investing more than US\$300 million to build a new international airport on the mainland; Dominica is also considering a new international airport. In addition, OECS countries subsidize airlines through various measures: direct payments to regional carriers, minimum revenue guarantees, and marketing support agreements. Data on payments to airlines is difficult to obtain; however, the Caribbean Hotel and Tourism Association conducted a study on the use of airline subsidies in 2009. Nine countries reported paying a total of US\$50 million a year to airlines (World Bank 2012b).

1.3 International Travel Patterns and Tourism Competitiveness in the OECS⁷

Regarding tourist⁸ arrivals, OECS lagged in comparison to the overall Caribbean between 2012 and 2013. In 2013, Table 1.3 shows that the OECS maintained a low share of total Caribbean tourist arrivals—with a 5.2% share—and grew by only 1.0% in comparison to 2.5% in the overall Caribbean. At the country level, tourist arrivals patterns in the OECS (plus Barbados) group were quite disparate, ranging from 508.5 thousand arrivals in Barbados to 7.2 thousand visitors in Montserrat. In terms of tourist arrival growth, the OECS was led by Anguilla, which grew by 6.8% in 2013 (see Table A.13) (CTO 2014a). Between 2006 and 2013, the OECS (plus Barbados) growth performance was always below that of the overall Caribbean and its share of total Caribbean tourists has slightly decreased during that period (CTO 2007, 2009, 2010a, 2010b, 2012, 2013a, 2013b, 2014a).

Table 1.3 Tourist Arrivals to the Caribbean by Sub-Region, 2013

	2013 (million)	13/12 (% change)
OECS countries ^a	1.0	1.0
Other Commonwealth countries ^b	5.6	2.2
Dutch territories ^c	1.9	5.2
French territories ^d	0.5	0.3
US territories ^e	2.3	–1.7
Other Caribbean countries ^f	8.2	6.8
Total/average Caribbean	19.5	2.5

Source: CTO 2014a.

a. OECS countries: Anguilla, Antigua, Dominica, Grenada, Montserrat, St. Kitts, St. Lucia, St. Vincent.

b. Other Commonwealth countries: Jamaica, BVI, Cayman Islands, the Bahamas, Barbados, Bermuda, Guyana, Belize, Turks and Caicos.

c. Dutch Territories: Aruba, Curacao, Sint Maarten.

d. French Territories: Martinique.

e. US Territories: Puerto Rico, USVI.

f. Other Caribbean: Cuba, Dominican Republic, Haiti, Suriname.

⁷ For a more comprehensive overview of the OECS tourism in a global context, please see appendix A.

⁸ A tourist is: “A visitor staying at least 24 hours in the country visited” (CTO 2014b). In other words, this implies that a tourist is a stay-over visitor. It is worth noting that cruise passengers are not considered as stay-over visitors (tourists) but as same-day visitors, even if the ship overnights at the port.

Box 1.1 Performance and Competitiveness in the OECS—Key Messages

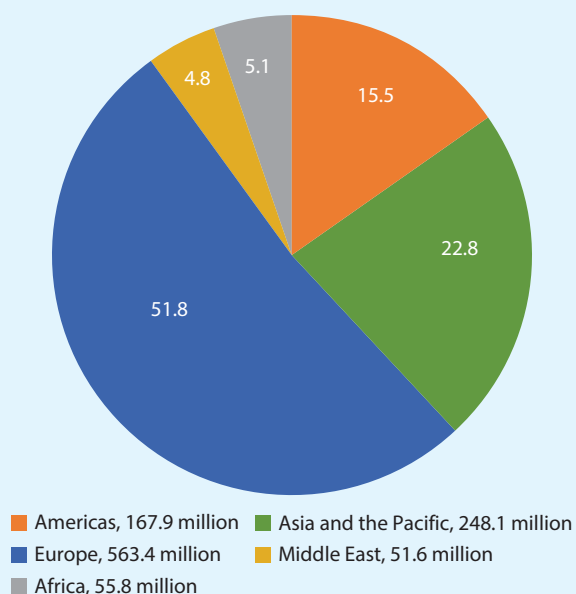
- In 2013, the OECS maintained a low share of total Caribbean tourist arrivals.
- As with tourist arrivals, the OECS performed below the Caribbean on tourism receipts.
- The OECS performs below the Caribbean region in competitiveness indicators.
- The OECS should benefit from positive prospects for the US and European economies in 2014.

Box 1.2 Global Trends in Tourism

In 2013, the biggest recipients of tourists in the world were: Europe, the Asia-Pacific and the America. **Figure B2.1** shows that Europe welcomed the most tourists during that year, with 563.4 million arrivals, accounting for 51.8% of world inbound tourism. Europe's share was followed by that of the Asia Pacific (22.8%); the Americas (15.5%); and the Middle East and Africa, which both embraced a modest share of approximately 5%^a

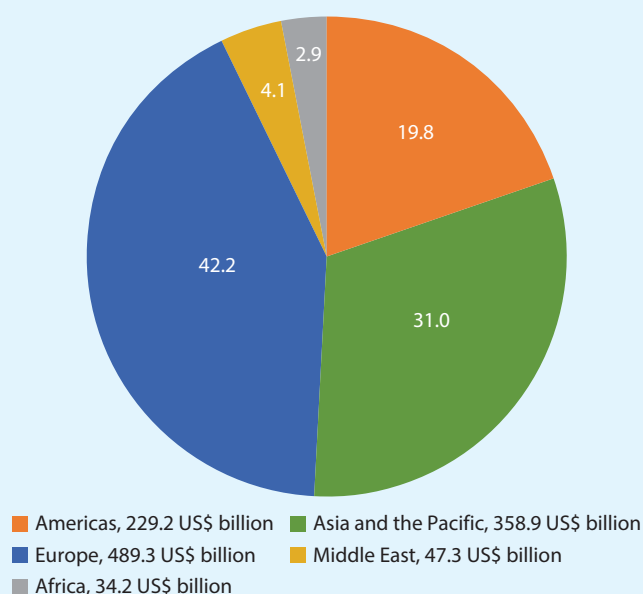
Between 2012 and 2013, relative growth was strongest in the Asia Pacific (6%), Europe and Africa (both 5%). These three regions were followed by the Americas (3%) and the Middle East (0%).

Figure B2.1: International Tourist Arrivals by Region, 2013 (% share)



Source: UNWTO, 2014a.

box continues next page

Box 1.2 Global Trends in Tourism *(continued)***Figure B2.2: International Tourist Receipts by Region, 2013 (% Share)**

Source: UNWTO, 2014a.

Internationally, the top spenders in outbound tourism in 2013 were: China, with US\$128.6 billion; the United States (US\$ 86.2 billion); and Germany (85.9 billion). Despite the rise of China, key traditional source markets together still remained the top spenders worldwide, with 7 advanced economies in the top ten.

In 2013, Europe was the biggest recipient of international tourism receipts, with a 42.2% share (**Figure B2.2**). This was followed by that of the Asia-Pacific (31.0%); and the Americas (19.8%).

Between 2012 and 2013, China and Russia have been leading growth in international tourism spending, while the Asia-Pacific region has received the highest growth in receipts. During that period, developing economies have thus been leading growth both in tourism expenditures and receipts. China's tourism spending increased by 26.1% in 2013 and was followed by Russia, with 24.9%; and Turkey, with 17.7%. Regarding tourism receipts, the Asia Pacific region demonstrated an 8% increase in 2013, while the United States and Europe also recorded robust growth, with 6% and 4% respectively. In contrast, growth in tourism receipts in Africa remained stagnant (0%) and decreased by –2% in the Middle East.

The United Nations World Tourism Organization (UNWTO) forecasts for 2014 an increase in tourist arrivals ranging between 4% and 4.5%. The organization expects that prospects for the Asia Pacific region will remain the strongest, with growth expected to reach 5%–6%. It projects an increase in Africa between 4% and 6%, compared to 2013, while both Europe and the Americas are expected to grow between 3% and 4%.

a. UNWTO, 2014a.

Table 1.4 General Characteristics of the OECS (plus Barbados)

<i>Country</i>	<i>Total population</i>	<i>Total tourist arrivals (thousand)</i>	<i>Total visitor expenditures (US\$ million)</i>	<i>Average room occupancy rates (%)</i>	<i>Average length of stay (days)</i>	<i>Purpose of visit: holidays (%)</i>
Anguilla	16,086	69.1	121.7	41.9	8.0	95.6
Antigua and Barbuda	91,295	243.9	307.7	55.7	—	95.1
Barbados	289,680	508.5	—	67.1	9.8	78.5
Dominica	73,449	78.3	82.0	—	10.5	80.5
Grenada	110,152	116.5	119.8	71.0	8.4	79.8
Montserrat	5,215	7.2	6.8	—	15.9	73.9
St. Kitts and Nevis	51,538	101.0	101.1	—	9.6	89.8
St. Lucia	163,362	318.6	353.9	58.0	8.8	78.1
St. Vincent	102,918	71.7	92.3	55.0	11.7	70.7
Average/total	903,695	1,514.80	1,185.3	58.1	10.3	82.4

Sources: CIA 2014 (population); CTO 2014a (tourist arrivals); CTO 2010c (occupancy rates; length of stay; and purpose of visit); ECCB 2014 (visitor expenditures).

Note: — = not available.

St. Vincent occupancy rate estimated by SVG Hotel Association.

Estimated 2014 data for: "population."

Yearly 2013 data for: "total arrivals"; "total visitor expenditures."

Yearly 2010 data for: "occupancy rates"; "length of stay" and "purpose of visit" (St. Kitts: yearly 2008 data).

As with tourist arrivals, the OECS performed below the Caribbean on tourism receipts. In 2013, the OECS maintained a low share of total Caribbean tourism receipts—4.8%. Receipts grew by a modest 1.9%, compared to 2.1% in the Caribbean. At the country level, St. Lucia collected the highest tourism receipts across the OECS, with US\$354 million; Anguilla demonstrated the highest growth in receipts, with an 8% increase (ECCB 2014). Between 2006 and 2012, the OECS's share of total Caribbean receipts declined from 5.2% to 4.8% (ECCB 2014; UNWTO 2009, 2010, 2013a, 2014a).

In contrast to the Caribbean, the highest growth in tourist arrivals in the OECS (plus Barbados)—in relative terms—came from Canada between 2012 and 2013. According to **Table 1.5**, the country within the OECS (plus Barbados) that received the highest growth in visits from Canadians was Grenada, with 27%. This was followed by the US, with 0.9% growth in arrivals in the OECS (plus Barbados). Grenada also demonstrated the highest growth in arrivals from the US at 16.1%. In contrast, arrivals to the OECS (plus Barbados) from Europe decreased 1.4%, led by Grenada (–16.1%). Arrivals from the "Other" group declined 0.7% in 2013.

Table 1.5 Tourist Arrivals to the OECS (plus Barbados) by Main Market

	<i>United States</i>		<i>Canada</i>		<i>Europe</i>		<i>Other</i>	
	<i>2013 (thousand)</i>	<i>13/12 (% change)</i>	<i>2013 (thousand)</i>	<i>13/12 (% change)</i>	<i>2013 (thousand)</i>	<i>13/12 (% change)</i>	<i>2013 (thousand)</i>	<i>13/12 (% change)</i>
Anguilla	45.5	8.9	3.6	8.6	7.4	2.9	12.5	1.3
Antigua and Barbuda ^a	88.8	−4.7	30.4	25.9	88.5	−1.6	36.2	−8.6
Barbados ^b	120.6	−7.8	67.3	−6.6	209.8	−0.4	110.8	−9.8
Dominica ^b	18.0	−5.0	3.0	−1.5	13.6	5.7	43.7	−1.0
Grenada	30.6	16.1	9.3	27.0	27.1	−16.1	49.5	0.1
Montserrat	1.8	−8.9	0.5	2.2	2.2	−5.2	2.7	7.0
St. Kitts and Nevis ^c	65.6	3.9	6.7	−0.5	9.8	7.6	19.0	0
St. Lucia	128.3	11.5	36.0	−4.6	88.5	−5.2	65.8	8.5
St. Vincent and the Grenadines	20.1	−6.3	7.1	−3.7	20.4	0	24.1	−4.0

Source: CTO 2014a.

a. Non-Resident Air Arrivals.

b. Preliminary figures.

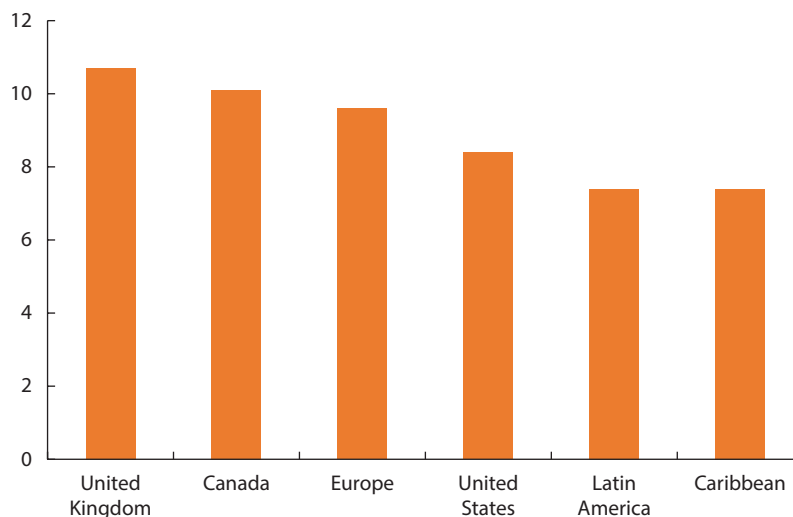
c. Excludes data from Vance M. Amory Int'l Airport in Nevis.

However, in absolute terms—as with the Caribbean—the United States (US) and Europe maintained the largest share of tourist arrivals in the OECS (plus Barbados), with 34% and 32% respectively. **Table 1.5** shows that St. Lucia received the most tourists from this market with 128.3 thousand arrivals. This market was closely followed by Europe (30.8% share), with Barbados receiving the most tourists in 2013 (209.8 thousand). Barbados also accounted for the largest share of arrivals from the “other” group, which held 24.1% of total OECS (plus Barbados) arrivals, and from Canada, which sourced 10.8% of total OECS (plus Barbados) tourists.

Overall, 82.4% of total tourists⁹ to the OECS (plus Barbados) usually come for holidays (**Table 1.4**) while the remaining tourists mainly come for business purposes. Anguilla received the most tourists travelling for leisure, with 95.6; followed by Antigua and Barbuda (95.1%) and St. Kitts and Nevis (89.8%).

The average stay of tourists from different parts of the world varies. As an example, according to **Figure 1.3**, tourists to Barbados from the UK and Europe tend to stay longer than tourists from the US.¹⁰

Figure 1.3 Average Length of Stay in Barbados by Nationality, 2013



Source: Barbados Tourism Authority.

⁹ Most definitions (e.g., from UNWTO and CTO) qualify a tourist as an over-night visitor and do not necessarily take into account the actual purpose of visit: UNWTO 2014c; CTO 2014b.

¹⁰ Typically, a multi-destination travel would require an ability to stay longer. As will be explained later in the paper, a shorter duration of stay is not an inherent characteristic of the American tourists, however. In other parts of the world (e.g., Greece), Americans do stay longer. This may suggest that, as one tourist in the OECS interviewed noted, if there are “things to do,” Americans will stay longer.

The average room occupancy rate in the OECS is only slightly below that of the Caribbean. The latest official data from the Caribbean Tourism Organization (CTO) on occupancy rates at the country level dates from 2010. **Table 1.4** shows that room occupancy rates in the OECS in 2010 approximately averaged 58.1%, while the overall Caribbean averaged 61.1% (CTO 2014b). On a larger scale, it is worth noting that the Caribbean's average rate was slightly above that of the Americas for both 2011 and 2012 (see **Table A.10**) (UNWTO 2013b).

Out of the 140 countries assessed in the latest World Economic Forum (WEF) Tourism & Travel (T&T) report, only one Caribbean country was ranked within the top 50: Barbados, with an overall score of 4.88 out of 6.0.¹¹ The latest edition of the WEF T&T Report assessed the performance of 6 countries in the Caribbean: Puerto Rico ranked 52nd (4.36); Jamaica ranked 67th (4.08); Trinidad and Tobago ranked 83rd (3.93), the Dominican Republic was 86th (3.88) and Haiti ranked 140th (2.59). Other countries in the OECS are not included in the assessment. However, given that Barbados outperforms by far the OECS countries in tourist arrivals¹² and visitor expenditures¹³, it would not be far-fetched to assume that, if the OECS countries were included in this scoring, they would have fallen below Barbados, and most other Caribbean States (WEF 2013).

Positive prospects for the US and European economies in 2014 should be beneficial for the OECS. The International Monetary Fund (IMF) expects that the impetus for global growth should come largely from recovery in advanced economies. The main markets for the OECS, from which tourist arrivals usually originate from, namely the US and Europe, are expected to grow respectively by about 2.8% and 1% in 2014 (IMF cited in CTO 2014b). The CTO expects that tourist arrivals in the Caribbean will increase between 2% and 3% in 2014 (CTO 2014b).

1.4 Intra-Regional Travel Patterns and Costs in the OECS

Regarding intra-Caribbean travel, the OECS demonstrated the largest decline in arrival flows amongst all sub-regions within the Caribbean region in recent years. Statistics for 2013 reveal that 2.1% more Caribbean residents traveled within the Caribbean than in 2012. However, **Table 1.6** shows that the OECS is the only region where intra-regional arrivals declined in 2013, with a reduction of 3.4%. The “Other Caribbean” region dominated growth in intra-regional arrivals, with a rise of 3.7% between 2012 and 2013, reaching a total of 973.7 thousand arrivals.

¹¹ Measurement of the overall score was based on the performance of three main pillars: T&T regulatory environment (including: policy rules and regulations; environmental sustainability; safety and security; health and hygiene; prioritization of Travel & Tourism); business environment and infrastructure (including: air transport infrastructure; ground transport infrastructure; tourism infrastructure; ICT infrastructure; price competitiveness in the T&T industry; T&T human, cultural and natural resources (including: human resources; affinity for Travel & Tourism; natural resources; cultural resources).

¹² Latest available data: 2013 (CTO 2014a).

¹³ Latest available data: 2010 (CTO 2010c).

Table 1.6 Intra-Caribbean Arrivals by Sub-Region, 2012–13

	2012 (thousand)	2013 ^e (thousand)	13/12 (% change)
Commonwealth countries ^a	624.3	621.5	–0.5
OECS countries ^b	283.6	273.9	–3.4
Other Commonwealth ^c	340.6	347.6	2.1
Other Caribbean ^d	938.5	973.7	3.7
Total Caribbean	1,562.8	1,595.2	2.1

Source: CTO 2014b.

Note: “e” means estimates.

a. Commonwealth countries: OECS countries + Other Commonwealth countries.

b. OECS countries: Anguilla, Antigua, Dominica, Grenada, Montserrat, St. Kitts, St. Lucia, St. Vincent.

c. Other Commonwealth countries: the Bahamas, Barbados, Belize, Bermuda, British Virgin Is., Cayman Islands, Guyana, Jamaica, Trinidad and Tobago, Turks and Caicos Islands.

d. Other Caribbean countries: Cancun, Cozumel, Cuba, Dom Republic, Haiti, Suriname.

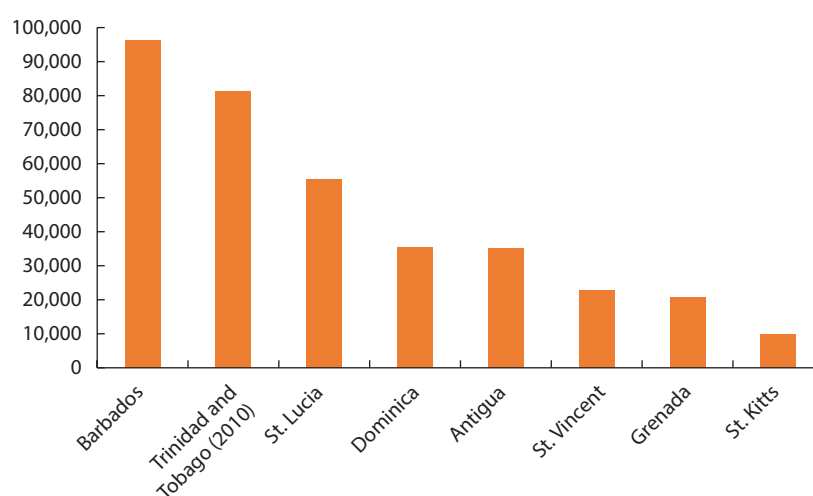
In absolute terms, the OECS received the smallest share of intra-regional travel within the Caribbean, with a total of 273.0 thousand arrivals. Approximately 1.6 million regional residents travelled within the Caribbean in 2013, and the highest share of this market was received by the “Other Caribbean” region, with a total of 973.7 thousand arrivals. This sub-region was followed by the “Other Commonwealth” region, which accounted for 347.6 thousand visits. **Figure 1.4** shows that in 2012, within the region, Barbados receives the most intra-Caribbean visitors, with 96,487, followed by Trinidad with 81,327 (2010).

Contributing factors in the decline in intra-regional travel include the high costs and logistical challenges of travel by air and the lack of any practical alternatives for moving around the Caribbean. Within the OECS, scheduling and flight frequency are important logistical challenges in an air travel market dominated by a monopoly (Briceno-Garmendia et al. 2013). It frequently costs more to travel to a neighboring OECS destination than it does to fly to Miami or beyond. Travelling intra-regionally also involves frequent stopovers, sometimes overnight. To illustrate both points, in one recent case it cost US\$850 to fly from Grenada to St. Kitts return; involving an overnight stop in Antigua on the outward leg (scheduled); and another on the return leg (unscheduled).

Leeward Island Air Transport (LIAT) is the principle airline in the region,¹⁴ and its fares are high by international comparison. **Table 1.7** shows average air fares for

¹⁴ Other airlines serving parts of the region are: Caribbean Airlines (National airline of Trinidad and Tobago. In the OECS, it mainly serves St. Vincent and the Grenadines, St. Lucia and Grenada); SVG Air (based in St. Vincent and the Grenadines islands, service includes flights to Grenada, St. Vincent, Dominica within the region); WINAIR (government-owned airline based in Sint Maarten. In the OECS region, it mainly serves Anguilla, Antigua, Dominica and St. Kitts and Nevis); Mustique Airways (an airline based in St. Vincent and the Grenadines, in the region, serving mainly Grenada and Saint Lucia beyond St. Vincent and the Grenadines); and Conviasa (the largest airline in República Bolivariana de Venezuela. In the OECS, it serves Grenada and Dominica).

Figure 1.4 Intra-Caribbean Arrivals to the OECS by the Country of Origin, 2012



Source: CTO data collected during mission travel.

Table 1.7 Average LIAT Air Fares in the Eastern Caribbean, 2014
US dollars

Route (return)	Round trip distance (miles)	Average 2014 LIAT round trip fare (\$)	Average fare per mile (\$)
St. Vincent–St. Lucia	95	323.61	3.39
Grenada–St. Vincent	170	288.73	1.70
Barbados–St. Lucia	217	364.46	1.68
St. Lucia–Martinique	83	278.00	3.36
Barbados–St. Vincent	223	332.14	1.49
Trinidad–Grenada	207	273.58	1.32
Grenada–Barbados	320	413.39	1.29
Trinidad–Barbados	414	331.14	0.80
		Average:	1.88
By comparison:			
London-Paris return	426	182.00	0.43
		LIAT/Europe fares:	440%

Source: LIAT website: <http://www.liatairline.com> (accessed June 2014) for travel 5–12 May, 2014.

mid-2014 are more than four times higher than an inter-European travel, on a per-mile basis.¹⁵

Table 1.8 shows the price breakdown for a LIAT ticket, involving flights to seven regional destinations.¹⁶ It is important to note that the taxes on LIAT tickets are not significantly higher than the taxes imposed on carriers in Europe and, based on information received from stakeholders, there has been no significant increase in the taxes applied to LIAT tickets over the last 5 years.¹⁷

The region has seen a gradual increase in airfares over time. **Table 1.9** shows that fares have increased by an average of 40.4% from 2010 to 2014 on a representative list of intra-regional routes.

Based on the World Bank database, global crude oil prices rose by 31.7% between 2010 and 2013 (World Bank 2014a). For US domestic airlines, fuel accounts for about 35% of operating expenses (*Atlanta Journal Constitution* 2012). LIAT's fuel expenses will be higher due to challenges of short distances and multiple take-offs and landings. Even if LIAT's fuel costs are 55% of total operating costs, then a 31.7% increase in fuel price would translate to a fare increase of about 17%. This implies that the largest part of LIAT's 40.4% fare increase between 2010 and 2014 was most likely due to non-fuel (and, as explained earlier, non-tax) cost increases.

Table 1.8 Taxes and Charges on LIAT's Base Fare

	<i>Dollars</i>
BASE PRICE	961.00
Plus taxes and charges:	
Barbados	59.68
Grenada	64.35
St. Vincent and the Grenadines	53.18
St. Lucia	38.12
Dominica	43.76
Antigua	51.25
St. Kitts and Nevis	61.25
Barbados	81.35
	452.94
Total ticket price	1,413.94
<i>Tax rate on base price:</i>	47%

Source: LIAT website: <http://www.liatairline.com> (accessed June 2014).

¹⁵ Using search engine of cheapflight.co.uk, available at: <http://www.cheapflights.co.uk/flights/Paris/London/>.

¹⁶ The traveler went twice to Barbados: one stay-over and one transit which may have influenced the different tax level charged.

¹⁷ Quantitative data was, unfortunately, not available.

Table 1.9 Inter-Regional Air Fares, 2010–14

<i>Route</i>	<i>Average fare 2010</i>	<i>Average fare 2014</i>	<i>Increase %</i>
Barbados–St. Lucia	246.24	364.46	48.0
Barbados–St. Vincent	207.00	332.14	60.5
Trinidad–Grenada	249.00	273.58	9.9
Grenada–Barbados	277.98	413.39	48.7
Trinidad–Barbados	245.00	331.14	35.2
		Average increase	40.4

Sources: AVRA 2010; LIAT website: <http://www.liatairline.com> (accessed June 2014).

Table 1.10 Average Number of Direct Flights per Day to Eastern Caribbean Destinations

<i>Origin</i>	<i>Destination</i>								
	<i>Antigua</i>	<i>Barbados</i>	<i>Dominica</i>	<i>Grenada</i>	<i>Nevis</i>	<i>Trinidad</i>	<i>St. Kitts</i>	<i>St. Lucia</i>	<i>St. Vincent</i>
Antigua	n.a.	n.a.	1.4	n.a.	0.4	n.a.	3.0	2.6	n.a.
Barbados	n.a.	n.a.	1.6	1.4	n.a.	n.a.	n.a.	2.4	4.0
Dominica	2.0	1.6	n.a.	n.a.	n.a.	n.a.	n.a.	0.9	n.a.
Grenada	n.a.	2.0	n.a.	n.a.	n.a.	2.4	n.a.	n.a.	1.4
Nevis	0.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trinidad	n.a.	n.a.	n.a.	2.4	n.a.	n.a.	n.a.	1.4	1.6
St. Kitts	3.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
St. Lucia	1.4	3.4	1.9	n.a.	n.a.	1.4	n.a.	n.a.	1.0
St. Vincent	n.a.	3.0	n.a.	2.0	n.a.	1.6	n.a.	1.4	n.a.

Source: Briceno-Garmendia, et al. 2013.

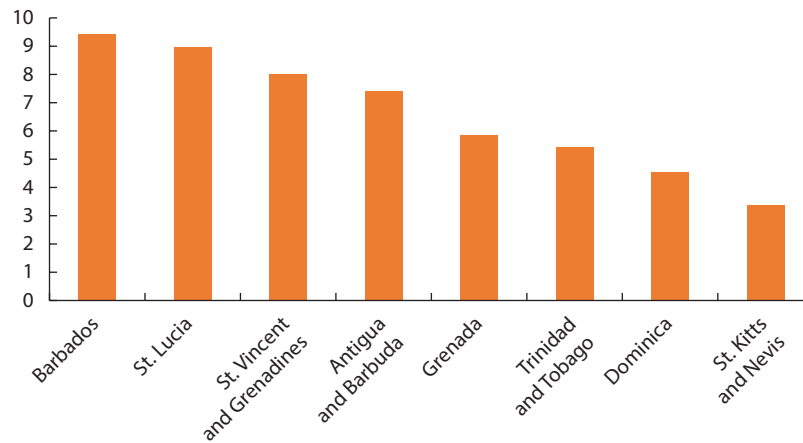
Note: n.a. = not applicable.

The Eastern Caribbean¹⁸ sub-regions have huge variations in connectivity. Table 1.10 shows the number of direct flights from and to various islands, as of October 2012.

St. Lucia, Antigua, Barbados, and St. Vincent¹⁹ have the most outbound flights in the region. St. Lucia benefits from its central location within the island chain. Figure 1.5 shows the total number of daily outbound flights per day.

¹⁸ The “Eastern Caribbean” includes the OECS plus Barbados and Trinidad and Tobago.

¹⁹ Antigua, Barbados, and St. Vincent are the main shareholders of LIAT.

Figure 1.5 Average Number of Outbound LIAT Flights per Day

Source: World Bank 2012b.

While privatizing LIAT, or outsourcing its management and operations to the private sector, or allowing fair competition in the airline industry are potential options for improving inter-regional travel, based on previous experiences and information provided by some stakeholders these are not politically feasible, at this time. The regional carrier is in the midst of a major re-fleeting program, including a US\$65 million loan from the Caribbean Development Bank (CDB). The Caribbean has had only one low-cost airline: REDjet. This new entrant to the regional aviation market was launched in 2011 by the Barbadian entrepreneur Ralph “Bizzy” Williams. Although the airline had a short history (it flew for only 9 months before its collapse in March 2012), its principals maintain that the demise of the low-cost carrier was caused not for want of a travelling public, but due to the regional governments supporting their own airline to the detriment of a private sector entrant. (“Our bookings grew very strongly from 2,500 per month to 10,000 per month in our last quarter”).²⁰ Given the circumstances, a regional ferry system that would facilitate inter-island travel is worth considering.

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CHAPTER 2

Multi-Destination Travel and a Regional Ferry System Could Positively Impact Tourism in the OECS

2.1 Uniqueness of Each Island Provides a Basis for the Development of Multi-Destination Travel

Each of the islands in the Organization of Eastern Caribbean States (OECS) region has features that could make the experience of island-hopping or multi-destination travel attractive. The tourism product is far from homogeneous across the OECS islands, with distinctive physical and cultural attractions on each of the eight islands. **Box 2.1** summarizes the features found of each island.

Box 2.1 Unique Features of the OECS

Antigua and Barbuda

Antigua is an established tourism destination; known as “the island of 365 beaches.” It is a popular yachting destination, with such events as the Antigua Classic Yacht Regatta (April 17–22) and the world famous Antigua Sailing Week (April 27–May2). The latter draws more than 1,500 sailors and some 5,000 spectators every year.^a

Barbados:

Barbados is the leading tourism destination in the region, with 508,520 arrivals in 2013. Popular in the UK market, which accounted for the largest share (32.4%) of visitor arrivals in 2013,^b Barbados caters to the high-end market with five-star properties like Sandy Lane, plus the low-budget segment. This relatively flat island has a population density of 659 people per square kilometer, the world’s 12th highest. Barbados is more developed than the OECS, with a more diversified tourism of all the islands.

Dominica:

Dominica is known as “The Nature Isle” or the island with 365 rivers—both are equally valid. Dominica is the “other” Caribbean, definitely *not* your typical sun-sea-sand holiday. Dominica boasts a verdant,

box continues next page

Box 2.1 Unique Features of the OECS *(continued)*

mountainous interior, French-influenced language and culture, and communities of Carib or Kalinago peoples, the last of the indigenous inhabitants of the Caribbean. Dominica is becoming popular as an eco-tourism destination. In 2012, more than 4,000 French tourists holidaying in Martinique took short-stay excursions to Dominica^b on the L'Express des Iles ferry for a few days before returning to Martinique and to France.

Grenada:

The southernmost of the Windward Islands, Grenada is “an enclave of quiet.” The hilly capital of St. George’s is generally regarded as one of the world’s most beautiful harbor towns, featuring old Georgian-era buildings with red clay tiled roofs and the picturesque Carenage, a working harbor and popular tourist attraction. The town is surrounded by several well-preserved historic forts, remnants of long-forgotten European wars, and their spillover effects on Grenada and other Caribbean islands.

St. Kitts and Nevis:

This island consists of two islands separated by a two-mile strip of water. St. Kitts features flat rolling hills, gradually sweeping upward toward Mount Liamuiga, formerly known as Mount Misery, which at 3,792 feet is the highest mountain in the entire Eastern Caribbean. The well-preserved Brimstone Hill Fortress is the largest fort in the Eastern Caribbean. Across the water sits Nevis, originally called Nieves by Columbus after the clouds that perpetually engulf the towering Mount Nevis. Nevis features the Four Seasons hotel and golf club as well as several small intimate inns sitting at higher elevations.

St. Lucia:

St. Lucia is a lush volcanic island, world famous for the Pitons, a pair of almost vertical mountains descending into the sea, a drive-in volcano. The island is known amongst climbers. The northern end of the island is well developed, with hotels, villas, private homes, and the Rodney Bay Marina, the most popular yachting destination in the region. Like Dominica, St. Lucia has a French-influenced culture, and English is mixed with the local patois on the streets.

St. Vincent and the Grenadines:

The quintessential island-hopping, with the mainland and the seven inhabited islands of the Grenadines: Bequia, Mustique, Mayreau, Canouan, Palm, Petite St. Vincent, and Union Islands. Sitting within the Grenadines are the world famous Tobago Cays, a pristine horseshoe-shaped reef surrounded by small uninhabited islands. Not surprisingly, St. Vincent and the Grenadines is an extremely popular sailing destination, both for charter yachts and round-the-world cruisers on extended stays.

a. Lovesail 2014.

b. For more information, see ESPN Cricinfo’s website at: <http://www.espncriinfo.com>.

2.2 There Is Potential Demand for Multi-Destination Travel and a Regional Ferry System

There is apparent demand for intra-region travel via a regional ferry system. According to tour operators active in the region, a ferry that makes it easier for tourists to travel from one island to another *will* have a positive impact on tourism trends in the region. As part of this paper, the World Bank Group team carried out a survey of leading tour operators in the Caribbean (appendix C). The findings include:

- 1) About 90% of tour operators say that clients often inquire about multi-destination holidays to the Eastern Caribbean.
- 2) Most people who are interested in multi-destination holidays (84%) are discouraged from multi-destination holidays because of the high cost of regional air travel.
- 3) All respondents believe that a well-run ferry service could significantly increase the attractiveness of the Eastern Caribbean Region as a whole. The large majority (70%) feel a ferry service could increase the overall flow of international tourists to the Eastern Caribbean by more than 5% over time; 25% feel the increase would be less than 5%.

A truly regional ferry system would also be welcomed by local residents. As it relates to local residents of the islands, the team also carried out a survey of travel agents within the region, regarding intra-region travel.¹ The findings include:

- 1) Most (53%) travel agents book more than 50 trips a month within the Eastern Caribbean² region.
- 2) The most common reason for travel within the Caribbean is visiting friends and relatives —at 59%, followed by business travel at 29%.
- 3) Most travel agents (81%) say that their clients frequently inquire about traveling around the Eastern Caribbean by ferry. However, the actual number of travelers who would be interested in a ferry could be higher; many travelers within the region (mainly local residents) would not bother to ask their travel agents about ferry service because they know it doesn't exist.
- 4) Finally, travel agents feel a ferry service could materially increase the flow of tourists within the region. A large majority of respondents (77%) feel that a regional ferry service could increase the number of tourists by more than 10% over time; 23% feel the increase would be between zero and 10%.

¹ While these surveys of tour operators and travel agents are encouraging, further development of a ferry project will require more extensive market research. This would include actual surveys of tourists visiting the main destinations within the region as well as surveys of Eastern Caribbean residents regarding their views about traveling by ferry, voyage preferences, willingness to pay, etc.

² The OECS plus Barbados and Trinidad and Tobago.

Tourists could provide a high level of demand for a ferry service. In 2013, 1.5 million tourists visited the OECS.³ In addition, 82.4% of all OECS (plus Barbados) tourist arrivals are for holidays (CTO 2010c). Tour operators and agents surveyed estimate that the flow of tourists who visit the region for leisure could increase between 5 and 10 percent, in the presence of a regional ferry.⁴ This adds up to a significant number of potential additional tourists in the region.

Anecdotal information collected in preparation of this report suggests there is a large untapped demand among local residents for a regional ferry system. The groups and events that could generate ferry demand include:

- 1) Cricket tours and tournaments are a major source of tourists, well-suited to ferry travel. When the English cricket team plays overseas, its organized fan club, known as the “Barmy Army,” will religiously follow the team from island to island. With more than 5,000 members,⁵ the Barmy Army brings together like-minded cricket fans from around the world to enjoy the game and the international camaraderie surrounding it. Among the Barmy Army and other cricketing nations such as Australia, cricket tours to the West Indies are particularly popular because of its carnival atmosphere and, world-class cricket matches. International tournaments and matches usually take place almost all year around.⁶ In 2014, Although reliable statistics on the number of cricket fans attracted to the region are not available, stakeholders from across the region reported that a significant impact of cricket on regional tourism—but it has the potential to be much bigger.
- 2) In addition to international cricket, there is now the Caribbean Professional League (CPL).⁷ In 2014, this tournament will take place between July 11 and August 17, featuring the biggest names in global cricket and a total of 31 cricket matches, 25 of which will be played in the OECS and Barbados. This, plus other cricket tours and tournaments would provide excellent opportunities for charter ferry services because the games are near to each other, without time gaps in between. The CPL attracts thousands of visitors, both local and overseas.
- 3) Moreover annual music festivals and carnivals attract large amounts of visitors from other Caribbean islands. Stakeholders reported that, during times of these special events, all flights into and out of the respective islands become fully booked. **Box 2.1** shows some of the carnivals and festivals that occur throughout the year within the Eastern Caribbean region, all of which draw thousands of regional and overseas visitors.

³ Typically, a multi-destination travel would require an ability to stay longer. As will be explained later in the paper, a shorter duration of stay is not an inherent characteristic of the American tourists, however. In other parts of the world (e.g., Greece), Americans do stay longer. This may suggest that, as one tourist in the OECS interviewed noted, if there are “things to do,” Americans will stay longer.

⁴ However, this preliminary analysis cannot take the place of a robust market sounding, before firm decisions could be contemplated on a ferry project. This would include extensive surveys of tourists, perhaps at arriving airports, in each of the main destinations within the region.

⁵ For more information, see England’s Barmy Army website at <http://www.barmyarmy.com/>.

⁶ For more information, see ESPN Cricinfo’s website at: <http://www.espncriinfo.com/>.

⁷ For more information, see Caribbean Professional League’s website at: <http://thecaribbeanproleague.com/>.

Table 2.1 Annual Carnivals and Festivals in the Eastern Caribbean

1	Trinidad Carnival	February/March
2	Grenada Billfish Tournament	March
3	Dominica Carnival	February/March
4	Carriacou Maroon Festival	April
5	St. Lucia Jazz Festival	May
6	St. Kitts Music Festival	June
7	St. Lucia Carnival	July
8	Barbados Cropover	Early August
9	Carriacou Regatta	Early August
10	Grenada Carnival	Mid-August
11	St. Kitts Carnival	December

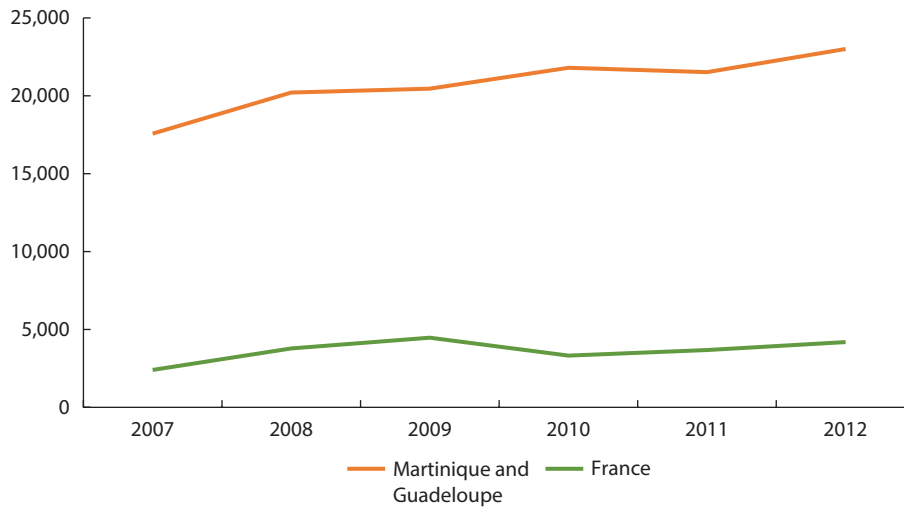
- 4) In addition to local students, there are 18 international universities in the Eastern Caribbean. Interviews with some of these students demonstrate their willingness to make the most of their limited stays in the Caribbean; based on information provided to the dean of one of the universities in Grenada, these students would welcome a regional ferry system that would allow them to travel more easily (and cheaply) within the region. Many would like to have the ability to rent a car and visit the different islands that way. This option would only be possible if there is a regional ferry system that would allow cars to get on and off.

Recent Caribbean experience has shown that travelers (both residents and tourists) will use a regional ferry system when it exists. For example, more than 4,000 French tourists visiting Martinique take L'Express des Iles ferry to Dominica each year. Arrivals to Dominica from Guadeloupe and Martinique increased from 17,575 in 2007 to 23,011 in 2012—all of whom traveled by ferry.⁸ **Figure 2.1** shows the growth of visitor arrivals to Dominica from Martinique and Guadeloupe, as well as tourists from France who were on holiday in the French territories.

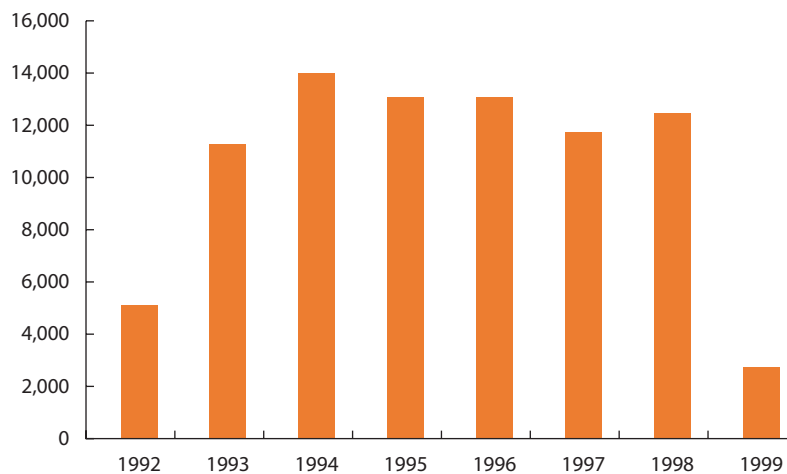
2.3 A Regional Ferry System Is Not New to the Region

A regional ferry system is not a new concept to the Caribbean region. In the 1990s, a mixed cargo/passenger ship called the M/V Windward plied a regular route between Barbados, St. Vincent, Trinidad, and Isla Margarita in República Bolivariana de Venezuela, carrying a mixture of excursionists, tourists, and hucksters (small traders who accompany their goods from island to island). **Figure 2.2** shows that from its inception in 1992, the Windward quickly built up a passenger, carrying on average 13,000 passengers a year from 1993 to 1998. In 1999, the vessel was sold after reaching the end of its economic and technical life.

⁸ CTO data collected during mission travel.

Figure 2.1 Arrivals to Dominica Using L'Express des Iles, 2007–12

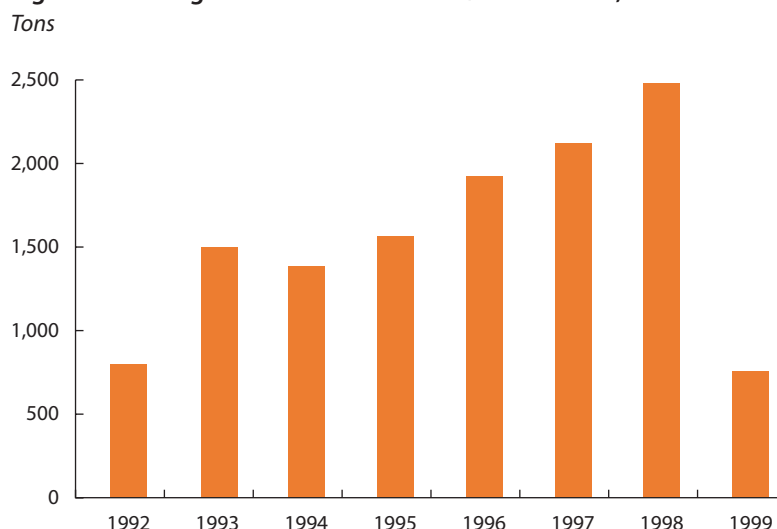
Source: CTO data collected during mission travel.

Figure 2.2 Passenger Movements on the M/V Windward, 1992–99

Source: Windward Ferries Ltd 2014.

The M/V Windward also made inroads into the regional cargo market. **Figure 2.3** shows that cargo tonnage rose steadily through its years of operation.

Currently, 11 ferry companies operate in the Eastern Caribbean, with 21 vessels with a total seat capacity of 5,853 passengers. However, only two ferry services carry vehicles, both on domestic routes. Only two ferry companies operate internationally: the Martinique-based

Figure 2.3 Cargo Movements on the M/V Windward, 1992–99

Source: Windward Ferries Ltd 2014.

L'Express des Iles and the much smaller Twin Island Ferry Services.⁹ L'Express des Iles successfully operates between the French West Indies, Dominica and St. Lucia but only covers a small part of the regional market. A snapshot of the existing ferry systems operating in the region is attached as appendix B.

2.4 Investor Interest for a Regional Ferry System Exists

The region has seen many ferry project concepts by potentially interested investors come and go. The most recent are:

- 1) **Caribbean Rose:** In August 2008, a new ferry service was announced to commence service in that year. It was to originate in Trinidad. It was believed that the ferry had arrived from Canada to be outfitted and would travel a route to include St. Lucia, St. Vincent and Barbados. However nothing further was heard of this project.
- 2) **Bedy Lines Limited:** In 2010, this Grenada-based project for a regional ferry service, planned to acquire a large vessel with accommodation for 900 passengers, 175 motor vehicles and cargo. The plan was to connect the islands of Barbados, St. Lucia, Trinidad, Grenada and St. Vincent with daily services. However, port authorities in the region ruled that the vessels, ex-Statens Island ferries, were unsuited to Caribbean marine conditions.

⁹ The most sustainable international service involves the French islands of Martinique and Guadeloupe, which flank Dominica. Because of strong cultural ties between St. Lucia and Martinique, the carrier l'Express des Iles connects St. Lucia, Martinique, Dominica, and Guadeloupe. Beyond this, international services can only be found between St. Kitt's and Antigua, Antigua and Montserrat, and Montserrat and St. Kitts. The remaining services are all domestic, with ferries connecting St. Kitts with Nevis, Grenada with Carriacou and Petit Martinique, and St. Vincent with the Grenadines.

- 3) **Fast Caribbean Ltd:** In September 2010 Trinidad and Tobago Prime Minister Kamla Persad-Bissessar announced the government's intention to launch a ferry service linking Trinidad and the Eastern Caribbean, and invited proposals from suitable investors. Five companies responded and Fast Ferry Caribbean Ltd was selected. This Barbados-based consortium was said to be chartering a 112-meter wave piercing catamaran similar to those operating on the Trinidad to Tobago route. However the project reportedly failed to secure the subsidies needed to make it succeed.
- 4) **Windward Lines (current):** Norwegian ship operator Captain Tore Toresteinson is seeking financing for a mixed passenger-cargo ship, linking Trinidad, the Eastern Caribbean and República Bolivariana de Venezuela. This is not a fast ferry project and would involve longer transit times, usually overnight.
- 5) **Grenada fast ferry project (current):** The Grenada Government is seeking investors for a fast ferry service among the Eastern Caribbean islands. Two fast catamaran-type ferries are needed, with a capacity of about 200 passengers as well as 10–15 vehicles.

One of the key reasons why all these and other such projects have failed to launch is because of a lack of coordination among governments at regional level. Most projects originate from unsolicited proposals to one government, or from random investors approaching individual governments; there has been no coordinated regional ferry project involving all the governments. In addition, the potential regional ferry system faces the challenge of untried routes, high operating costs and limited ability to pay on the part of the travelling public. None of the participating governments have thus far been willing to commit subsidy funds to a regional ferry project.

2.5 Challenges Facing a Regional Ferry Project and Island-Hopping

While many people and groups would welcome ferry service, such a project would face several major challenges that, if not removed, will hamper this approach's success. Aside from the lack of coordination among governments at regional level mentioned above, other challenges include:

Outdated and cumbersome regulations and restrictions. Throughout the region, the movement of people and goods is hampered by complex, time-consuming, and expensive regulations. They were implemented decades ago and have not been modernized to allow for smoother passage. For example, although a Grenadian ferry operates between Grenada and Carriacou, and Vincentian ferries operate from St. Vincent to Union Island, there is no ferry service across the marine boundary between Union Island and Carriacou—a distance of two miles. Both ferry operators reported that they do not cross boundaries because of the hassles and high costs involved. As reported by the owner of the high-speed ferry “Jaden Sun,” it can cost up to US\$2,000 just to pay clearance, port, Customs and agency fees. During the 2007 Cricket World Cup, all Caribbean Community (CARICOM) countries enacted the “Sunset Legislation” to ease passage from one CARICOM country to the other. Once visitors had cleared into one participating country, they did not need to clear into succeeding CARICOM countries; the airline would simply notify the authorities via their passenger lists. According to all stakeholders involved, the system worked well; however, all countries went back to the old cumbersome methods immediately after the end of the 2007 Cricket World Cup. If these or similar regulations were implemented in a regional manner, they could make inter-island

travel less cumbersome, leading to a positive impact on tourism. A ferry project, by its very nature, requires close collaboration between the governments of participating countries, which must agree on a common set of regulations, incentives, and other conditions for private sector ferry companies operating internationally. The OECS and CARICOM are working on several initiatives designed to simplify and harmonize travel procedures, but it is unclear when those efforts will bear fruit and whether they will be sufficient.

Countries in the region do not recognize the temporary importation of vehicles. They require the “importer” to pay a fee of up to 6% of the vehicle’s value, plus a bond and other expenses and hassles. This makes it difficult for tourists to travel by car from one island to another. It also hampers the movement of cargo from one island to another because goods need to be off-loaded onto a boat and then to another vehicle at the destination, increasing costs.

Many customs and immigration agencies operate according to limited timetables, forcing arriving vessels to wait or pay overtime charges. For example, according to tourists interviewed for the preparation of this report, who had been sailing, arriving after 4 p.m. would cause significant delays because there are no customs agents available on some islands at that time. Additional fees were needed to be paid to bring a customs agent after-hours. Whereas visiting yachts would be able to wait until the following day to clear in, ferries operating on tight schedules do not have that luxury, and therefore have to incur overtime costs.

Shore-based infrastructure is inadequate—in some instances cases, non-existent. Virtually all countries would need to invest heavily in shore-based infrastructure, such as ferry terminals, docks, and facilities for fast processing of passengers. One solution suggested by some of the Port Authorities was for the ferry to use existing cruise ship terminals in each island; however, this could involve scheduling difficulties during the cruise-ship season from October to April, which would need to be taken into account. In addition, some islands do not have facilities of offloading cargo and people at the same location, creating logistical difficulties for any ferry that would carry both.

There has been no coordination at a regional level to open the project for a regional ferry system to public bidding, following transparent and clear procurement rules. As mentioned earlier, the proposals that have been floating in the region have been the result of random discussions between individual investors and individual governments, rather than a public and open, regional procurement process. This has contributed significantly to none of the projects getting off the ground. For a ferry system to succeed, a concerted regional effort will be required. The governments of the region should, first, undertake an open and transparent procurement effort for the project, instead of one-on-one discussions with random investors by individual governments. This process would allow some of the existing ferry operators in the region to bid and compete fairly in the process as well. Towards this end, a regional body or entity should undertake the responsibility to call for proposals and to have a proper mechanism to evaluate the proposals. Then, should subsidies be required,¹⁰ a commitment from all the governments in the region is important.¹¹ While this issue has not been assessed thoroughly in this paper (and

¹⁰ This needs to be subject to a separate feasibility study for the regional ferry system.

¹¹ The level of subsidization required should become subject to a viability gap financing scheme developed as part of a feasibility assessment of a regional ferry system.

the challenges facing LIAT may have other causes), based on anecdotal information collected, some stakeholders in the region blamed the challenges of LIAT in the failure of all governments in the region to provide the necessary financial support, and for some countries to be receiving a free-ride at the expense of those countries who finance LIAT. Should subsidies be required for the regional ferry system (which, as explained in the paper, even in the successful ferry systems like Greece they are), it is important to avoid the free-ride problem.

Virtually all vessel operating costs are abnormally high in the Caribbean. Except in Trinidad and Tobago, fuel (bunker) costs are among the highest in the world. There are no maritime training schools in the OECS, so ship operators must send their ratings to maritime training in either Trinidad or Jamaica at considerable expense. In addition, spare parts and specialist services have to be brought in from abroad, adding transport expenses and taxes. Potential ferry operators have also, so far, been unable to find suitable vessels at an economic price.

Activities and entertainment for tourists outside of resorts is limited in OECS countries. For multi-destination travel to be interesting, improving the experience of tourists at each destination is also essential.¹² According to a 2013 survey,¹³ amongst tourists, cultural heritage and culinary activities ranked much higher in importance than the traditional beach and watersports activities typically associated with the Caribbean. A relatively high proportion of respondents demonstrated interest in shopping opportunities, especially amongst females, respondents from the UK, Canada and the Caribbean. According to some tourists interviewed during the data collection phase of this report, there are no true shopping areas geared toward tourists and not many attractive onshore activities (no historical places to visit, no interesting culinary experiences, not a large option of outdoors activities, etc.). In addition, many tourists said shops and services were often closed (such as on Saturday afternoons and Sundays), and they had concerns about the quality of services that they would receive onshore. A separate study would be important for identifying how service quality and tourist experience could improve (as well as the productivity of the sector), making the OECS a more attractive destination and to encouraging tourists to visit multiple islands.

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¹² Having more activities onshore could also stimulate spending by cruise ship passengers.

¹³ The 2013 survey collected the views of two distinct groups: (1) persons who have cruised before; (2) persons who have never cruised; and (3) persons who have cruised before, but never to the Caribbean. CTO (2013c).

CHAPTER 3

Preliminary Data for Assessing the Feasibility of a Regional Ferry System

3.1 Regional Ferry at Work: Greek Case-Study

At first glance, Greece and the Eastern Caribbean have certain similarities and significant differences. They both consist of many islands separated by relatively short distances by sea, with a heavy reliance on tourism. In the Greek islands, the average distance of the five most popular ferry routes is about 140 nautical miles¹ In the Eastern Caribbean, the average distance of ferry routes from St. Lucia to Grenada and Barbados is about 91 miles.² However, Greece receives approximately 17 million visitor arrivals a year, compared to approximately 1 million in the OECS and about 3.3 million for the broader Eastern Caribbean region. Greece is closer to Europe—but the Caribbean region has the US market nearby. Greek islands do not have to deal with borders.

The number of people who travel the Greek islands via ferries suggests demand for “island-hopping” is strong.³ The Greek ferry system has approximately 60 vessels, multiple service providers, and daily trips to most islands (up to 10–12 hours overnight). Prices in the Greek ferry system range from €30–€130 per person. In addition to the 17 million visitors, the system also transports 2 million cars and 500,000 trucks per year (Figure 3.1), generating an annual turnover of about €400–€500 (XRTC Consultants 2010).

Despite the large numbers of passengers the Greek ferry industry carries each year, government subsidies are required to keep the fleet afloat. Figure 3.2 shows that government subsidies to the Greek ferry industry rose from €27.6 million in 2005 to €40 million by 2010. By 2012, the subsidy was reported to have grown to €80 million (Lloyd’s List 2012).

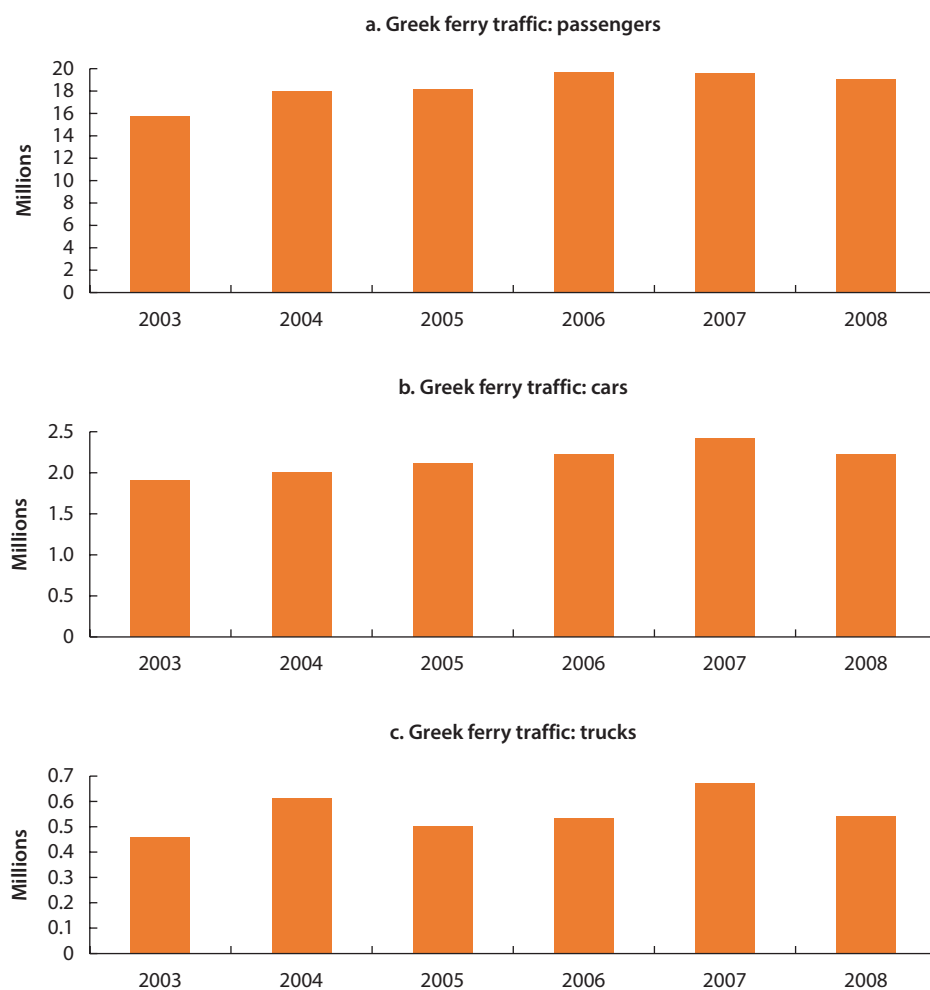
In Greece, an extensive domestic airline sector exists alongside the ferry industry. Table 3.1 shows that 75% of domestic inter-island passenger traffic in the Greek islands is by ferry, compared to only 25% by air (Rigas 2009).

¹ Search using Sail Greece website, available at <http://www.sailgreeceyachts.com/sailing-distances-greece.html>.

² The level of subsidization required should become subject to a viability gap financing scheme developed as part of a feasibility assessment of a regional ferry system.

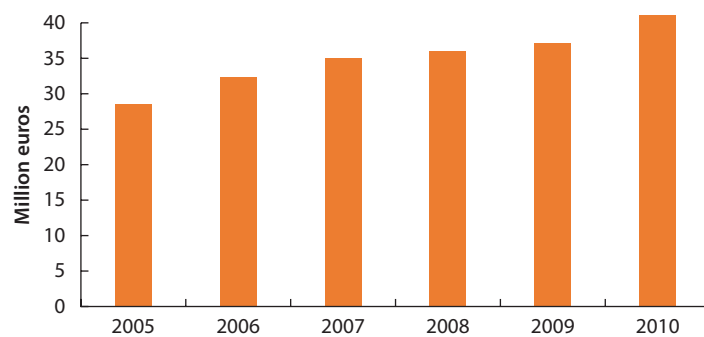
³ Specific data on the number of visitors who engage in island hopping in Greece was not readily available.

Figure 3.1 Greek Passenger, Car, and Truck Traffic Carried by Ferries, 2003–08



Source: XRTC Consultants 2010.

Figure 3.2 Subsidies to the Greek Ferry Industry, 2005–10



Source: XRTC Consultants 2010.

Table 3.1 Passenger Traffic in Greek Inter-Island Travel, 2003

	<i>Thousands</i>			<i>% of Total</i>	
	<i>Air</i>	<i>Sea</i>	<i>Total</i>	<i>Air</i>	<i>Sea</i>
Crete	1,240	2,506	3,746	33	67
Chios	155	410	565	27	73
Mykonos	154	647	801	19	81
Rhodes	689	414	1,103	62	38
Total Aegan	3,339	7,532	10,871	31	69
Total Greece	10,030	29,809	39,839	25	75

Source: Rigas 2009.

Table 3.2 Greek Inter-Island Air and Sea Fares, 2005 (Euro)

	<i>Air</i>	<i>Sea</i>	<i>Percent</i>
Crete	88	30	34
Chios	81	29	36
Mikonos	85	20	24
Rhodes	87	42	48
		Average	35

Source: Rigas 2009.

Average Greek ferry fares are about 35% lower than the applicable airfares (Table 3.2).

The average duration of tourist stays in Greece was 9.2 days in 2011.⁴ While the country of origin of tourists visiting the Organization of Eastern Caribbean States (OECS) and Greece are different (Table 3.3),⁵ the average duration of tourists in the OECS is slightly higher, with 10.3 days (Table 1.4).

American visitors to Greece consistently stay longer than the average 9.2 days. A major concern regarding any multi-destination tourism strategy in the OECS region is that most visitors are Americans, and they generally have a shorter duration of stay (Figure 1.3 shows an example of Barbados⁶). This assumption, however, may not necessarily be valid: the shorter duration of stay is not an inherent characteristic of American travelers. In Greece, where there are many tourist attractions and activities, for example, the duration of stay of American tourists has usually been above the average 9.2 days (Figure 3.3). In other words, longer durations of stay and island-hopping could very well be feasible, even if Americans are the dominant market providing tourists to the OECS region.

⁴ Hellenic Chamber of Hotels website.

⁵ Comparing the tourist profiles of Greece and the OECS was not possible due to limited data.

⁶ The data on the breakdown of duration of stay per nationality in all OECS countries was not available.

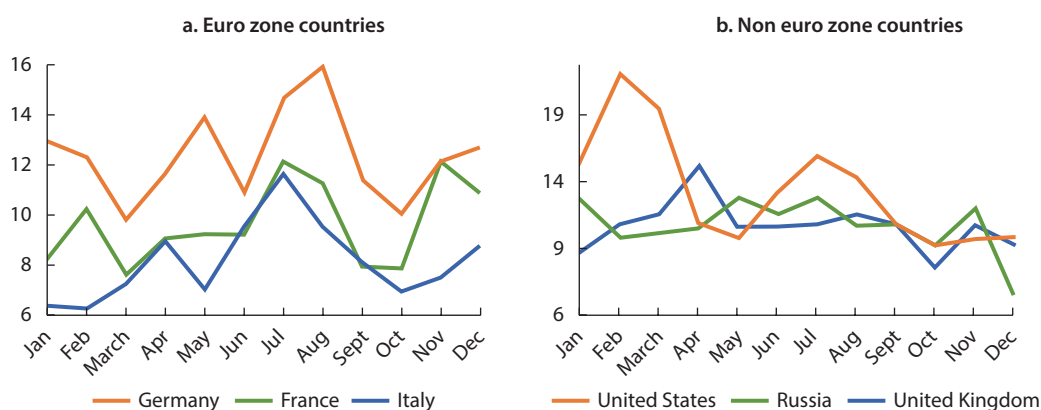
Table 3.3 Tourist Arrivals in Greece by Country of Origin, 2010–12

<i>Countries</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>D% 2011/10</i>	<i>D% 2012/11</i>
Europe	13.275.962	14.651.513	13.866.306	10.4	–5.4
EUROPEAN UNION	10.199.904	10.698.013	9.791.900	4.9	–8.5
France	868.346	1.149.388	977.376	32.4	–15.0
Germany	2.038.871	2.240.481	2.108.787	9.9	–5.9
United Kingdom	1.802.203	1.758.093	1.920.794	–2.4	9.3
Spain	155.302	154.774	155.722	–0.3	0.6
Italy	843.613	938.232	848.073	11.2	–9.6
Netherlands	528.157	560.723	478.483	6.2	–14.7
Hungary	109.160	69.756	69.789	–36.1	0.0
Poland	402.170	450.618	254.682	12.0	–43.5
Portugal	19.497	34.642	20.483	77.7	–40.9
Romania	257.939	223.699	230.396	–13.3	3.0
Sweden	281.069	333.906	319.756	18.8	–4.2
Czech Rep.	294.936	309.062	289.034	4.8	–6.5
Finland	205.282	167.632	154.134	–18.3	–8.1
<i>Switzerland</i>	<i>274.418</i>	<i>361.405</i>	<i>299.619</i>	<i>31.7</i>	<i>–17.1</i>
<i>Norway</i>	<i>187.319</i>	<i>226.627</i>	<i>294.114</i>	<i>21.0</i>	<i>29.8</i>
<i>Russia</i>	<i>451.239</i>	<i>738.927</i>	<i>874.787</i>	<i>63.8</i>	<i>18.4</i>
Asia	869.737	882.643	921.808	1.5	4.4
Japan	10.021	10.125	8.841	1.0	–12.7
China	13.620	15.838	12.203	16.3	–23.0
Israel	197.159	226.110	207.711	14.7	–8.1
Turkey	561.198	552.090	602.306	–1.6	9.1
Africa	44.239	38.450	37.411	–13.1	–2.7
Egypt, Arab Rep.–Sudan	15.925	4.675	4.724	–70.6	1.0
South Africa	19.985	21.981	19.686	10.0	–10.4
America	691.379	719.661	558.728	4.1	–22.4
Brazil	34.015	52.118	31.125	53.2	–40.3
United States	498.301	484.708	373.831	–2.7	–22.9
Canada	113.358	142.287	102.694	25.5	–27.8
Oceania	126.173	134.979	133.368	7.0	–1.2
Australia	108.088	115.902	117.852	7.2	1.7
TOTAL	15.007.490	16.427.247	15.517.622	9.5	–5.5

Source: Greek Research Institute for Tourism 2013.

Note: Countries in italics represent countries outside the EU

Figure 3.3 Number of Nights per Visit on a Monthly Basis by Country of Origin of Visitors, 2012



Source: Bank of Greece.

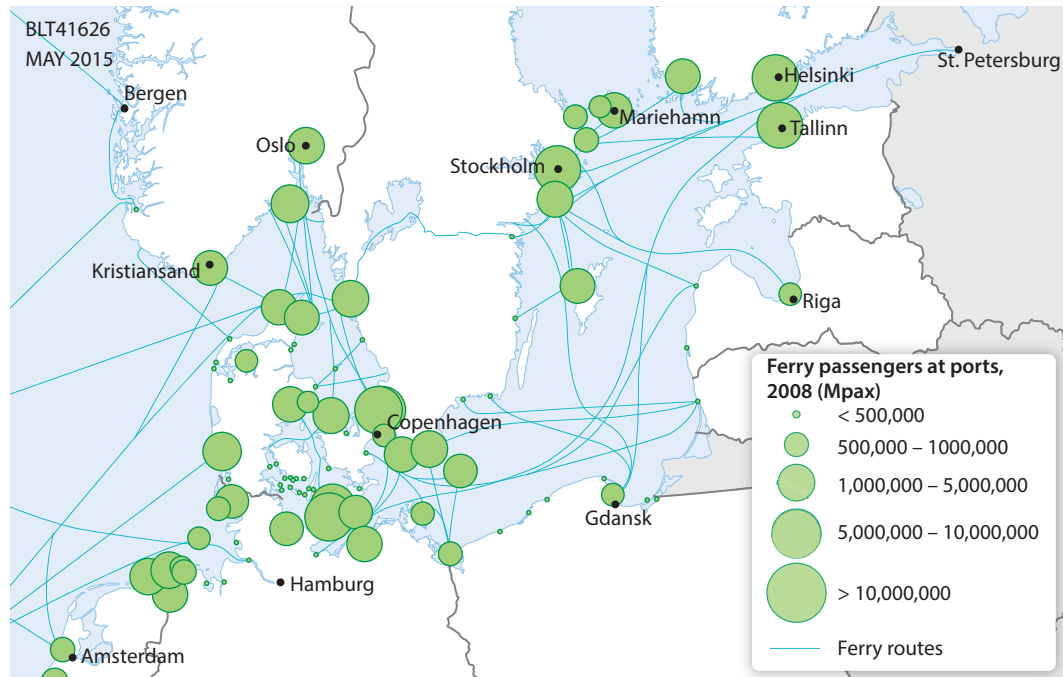
3.2 A Viable Cross-Borders Ferry System: The Baltic Sea Case Study

The Baltic Sea provides an interesting case study where ferry is a widespread mode of transport, not only domestically as in the case of Greece but also across borders (**Map 3.1**). Every year, more than 130 million passengers travel by ship in the European member states around the Sea (2009 data, ESaTDOR 2013a). For many countries in the region such as Denmark, Estonia, Finland and Sweden, maritime passenger transport is of particular importance considering the size of their national population. Estonia for example, has 9.8 passengers per inhabitant in 2013 while sea transport generally accounts for more than 70% of all their passengers in international traffic.⁷ The ferry system also plays an important role in transporting vehicles. In 2006, 13.4 million registered cars, or 15% of the passenger volume, passed through the region's ports.

The Baltic Sea provides interesting lessons relevant for the functioning of a regional system in the Eastern Caribbean, on the importance of the simplification of border-crossing procedures. Simplification of border-crossing procedures following the EU accession of four countries in 2003 and their subsequent implementation of the Schengen Agreement in 2007 might have contributed to a stable increase in ferry and tourism demand. **Figure 3.4** shows an example of the number of passengers in international traffic through Estonia's ports between 2000 and 2013. It shows a clear increasing trend in both international inflows and outflows through the country since their Schengen implementation in 2007. More generally, the ease of access associated with EU membership is considered to have at least partially contributed to an increase in tourism demand in the region (Jarvis and Kallas 2008; Hall, Smith, and Marciszewska 2006).

⁷ Statistics Estonia and Eurostat http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Passenger_transport_statistics.

Map 3.1 Number of Ferry Passengers at Baltic Sea Ports, 2008



Source: Baltic Sea Regional Profile, ESaTDOR 2013a.

Figure 3.4 Passengers in International Traffic through Estonia's Ports



Source: Data from Statistics Estonia.

Due to concentrated demand, ferry services in the Baltic Sea are populated by commercially viable carriers. In 2011, 30 ferry companies connect 90 routes and 38 ports in the region. On many routes with high demand such as Tallin-Helsinki, Sassnitz-Ronne, Ystad-Świnoujście and Trelleborg-Rostock, connection is competed among several carriers (Wiskulski and Bar-Kolelis 2012).

At the same time, there are various Public Obligation Services (PSO) routes that are unprofitable and require state subsidies. In most cases, PSO routes are domestic as they are essential services by nature. However, subsidies might also be provided on international routes. For example, A PSO route between Finland and Sweden exists on the basis that it provides a vital link between Finland and Sweden, and would not have been commercially viable without subsidies. Funding for the service comes primarily from the Finnish Government, while some districts in Sweden also contribute to the financing of the contract (Transport Research Institute 2010).

Experience of EU countries in public tendering of PSO ferry services and subsidy schemes offers useful lessons to cases where the market is unable or unwilling to provide an adequate service on a given route. In Denmark for example, tendering has moved from a “least cost” method towards multi-criteria evaluation in order to identify the economically most advantageous bid, reflecting the need to consider service quality as well as cost. In the case Greece, the profitable routes are in practice required to cross-subsidy unprofitable routes through a customer surcharge, which might have consequences on allocative efficiency. Norway appears to be a successful case where competitive tendering of individual routes has achieved both cost efficiency as well as service quality (Baird and Wilmsmeier 2011). Nevertheless, there are also tradeoffs in terms of economies of scale that can be achieved with bidding for bundles of routes. Table 3.4 below summarizes several strengths and weaknesses associated with different approaches.

Table 3.4 Procurement of Ferry Service: Bundling Options

	<i>Strengths</i>	<i>Weaknesses</i>
Large bundle	Possible economies scale/scope. Single contract.	Discourages private bidders. Expensive/cumbersome, lengthy tender process for private operators. Intense competition for ship time/relief cover over too many routes.
Small bundle	Scope for innovation as more bids might be attracted, so more competition.	May reduce economies of scale/scope, though not for larger integrated transport operators. Increases management of tenders.
Single route tender	Some routes appear to be attractive. Relief cover can be built in to the spec for some routes needing two or more ships. May be more rapid tender process.	Possible reduced scope for economy of scale/scope. Increases management of tenders.

3.3 Costs and Services Associated with Ferry Travel in the OECS Region

As mentioned earlier, 11 existing ferry companies operate in the Eastern Caribbean region. **Table 3.5** shows that seven of the eleven employ the new breed of catamaran-type fast ferries; with average speeds of 20 knots and upwards. The other four operate slower traditional vessels (average speeds 12–15 knots). However, none of the ferries provides a service at a regional level (due to obstacles that will be discussed in the next section of the paper).

There is a wide disparity in the types of ferry services in the Eastern Caribbean region—and in fares charged. **Table 3.6** shows the fares by the various ferry operators in the region. When expressed as a cost per mile, ferry fares range from a low of only 9 US cents per mile on the highly subsidized Trinidad–Tobago Ro-Ro ferry service to \$2.71 per mile from St. Lucia to Martinique on the L'Express des Iles fast ferry. **Figure 3.5** shows the wide disparity in ferry fares per nautical mile in the Eastern Caribbean. On the slower traditional ferries, passengers pay in higher transit times. As we will explore later in the section, fast ferry operator face much higher operating costs than do operators of slower vessels.

Overall, the Eastern Caribbean ferries' average cost is US\$1.06 per nautical mile (**Figure 3.6**). This works out to about 57 percent of the average cost per mile travelled on Leeward Island Air Transport's (LIAT's) Eastern Caribbean routes in May 2014 (**Table 3.7**).

Table 3.5 Eastern Caribbean Ferry Operators

	<i>Company/Vessel</i>	<i>Country</i>	<i>Number of vessels</i>	<i>Type</i>	<i>Capacity</i>
1	Osprey	Grenada	2	Fast catamaran	320
2	L'Express des Iles	International	3	Fast catamaran	1,150
3	Barbuda Express	Antigua & Barbuda	1	Fast catamaran	40
4	Twin Islands Ferry Service	International	1	Fast catamaran	100
5	Jaden Sun	St. Vincent and Grenadines	1	Fast catamaran	218
6	Barracuda	St. Vincent and Grenadines	1	R0-Ro Ferry	200
7	Admiralty	St. Vincent and Grenadines	1	R0-Ro Ferry	200
8	Gem Star	St. Vincent and Grenadines	1	R0-Ro Ferry	200
9	Trinidad-Tobago	Trinidad and Tobago	2	Fast catamaran	1,605
10	San Fernando Water Taxi	Trinidad and Tobago	4	Fast catamaran	1,620
11	St. Kitts-Nevis ferries	St. Kitts and Nevis	4	Passenger ferry	200
	Total		21		5,853

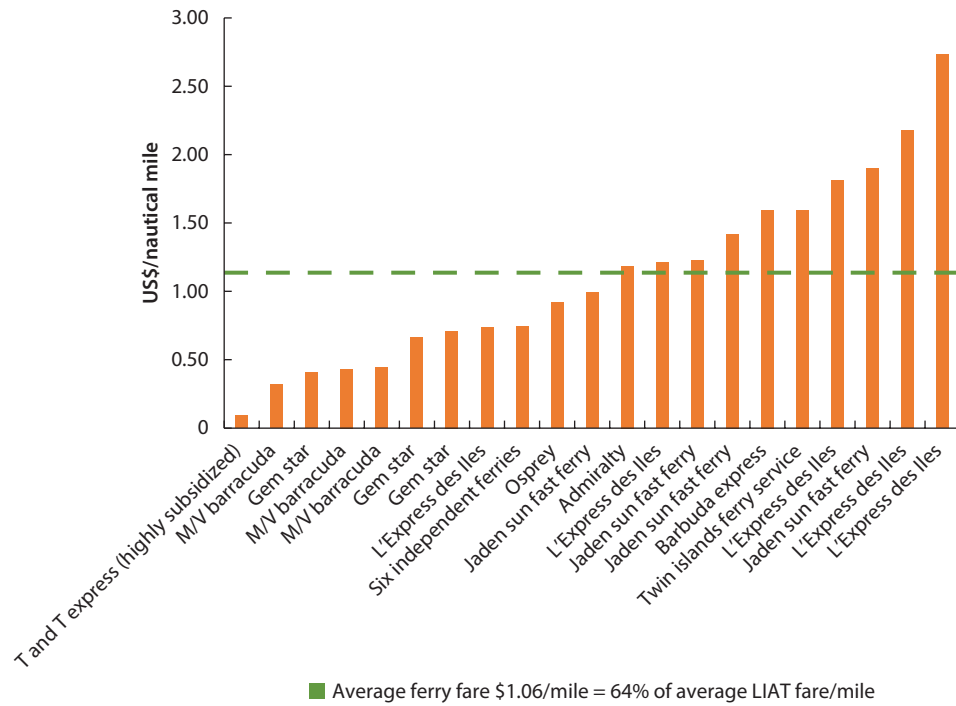
Source: Operator websites.

Table 3.6 Ferry Fares in the Eastern Caribbean, 2014⁸

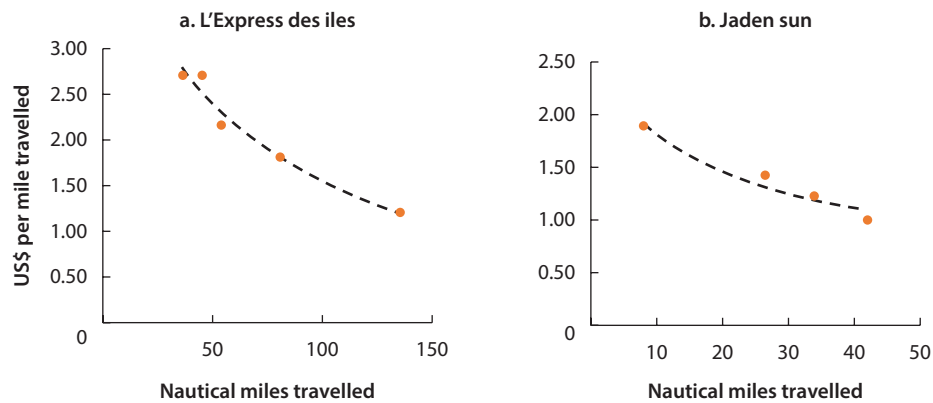
<i>Ferry service</i>	<i>Nautical miles</i>	<i>Fare US\$</i>	<i>Fare per mile US\$</i>	<i>Fast/Slow</i>	<i>Operator</i>
Grenada:					
Grenada-Carriacou	34.0	31.00	0.91	Fast	Osprey
L'Express des Iles:					
St. Lucia-Martinique	36.0	97.50	2.71	Fast	L'Express des Iles
Martinique-Dominica	45.0	97.50	2.17	Fast	L'Express des Iles
Guadeloupe-Dominica	54.0	97.50	1.81	Fast	L'Express des Iles
St. Lucia-Dominica	81.0	97.50	1.20	Fast	L'Express des Iles
St. Lucia-Guadeloupe	135.0	98.50	0.73	Fast	L'Express des Iles
Antigua and Barbuda:					
St. Johns - Barbuda	31.0	49.06	1.58	Fast	Barbuda Express
Antigua-Montserrat	29.7	47.00	1.59	Fast	Twin Islands Ferry Service
St. Vincent and Grenadines - Fast:					
Kingstown-Bequia	8.0	15.09	1.89	Fast	M/V Jaden Sun
Kingstown-Mayreau	42.0	41.51	0.99	Fast	M/V Jaden Sun
Kingstown-Canouan	26.7	37.74	1.41	Fast	M/V Jaden Sun
Kingstown-Union	34.0	41.51	1.22	Fast	M/V Jaden Sun
St. Vincent and Grenadines - Slow:					
Kingstown-Mayreau	42.0	13.21	0.31	Slow	M/V Barracuda
Kingstown-Canouan	26.7	11.32	0.42	Slow	M/V Barracuda
Kingstown-Union	34.0	15.09	0.44	Slow	M/V Barracuda
Kingstown-Bequia	8.0	9.43	1.18	Slow	M/V Bequia Express
Kingstown-Bequia	8.0	9.43	1.18	Slow	M/V Admiralty
Kingstown-Mayreau	42.0	16.98	0.40	Slow	M/V Gem Star
Kingstown-Canouan	26.7	18.87	0.71	Slow	M/V Gem Star
Kingstown-Union	34.0	22.64	0.67	Slow	M/V Gem Star
Trinidad and Tobago:					
Port-of-Spain - Scarborough	90.0	8.00	0.09	Fast	T and T Express (highly subsidized)
Port-of-Spain - San Fernando	25.5	2.42	0.09	Fast	Water Taxi (highly subsidized)
St. Kitts & Nevis:					
Basseterre-Charlestown	10.9	8.00	0.74	Slow	4 St. Kitts-Nevis ferries
Average cost per mile	39.3		1.06		

Source: World Bank Group calculations based on published fares.

⁸ Fast ferries are defined as those that go faster than 25 knots per hour.

Figure 3.5 Eastern Caribbean Ferry Fares per Nautical Mile

Source: World Bank Group calculations based on published fare.

Figure 3.6 Ratio of Cost per Mile and Distance Traveled

Source: Operator websites.⁹

⁹ Express des Iles and Jaden sun websites respectively available at: <http://www.express-des-iles.com/>; <http://jadeninc.com/>.

Table 3.7 Ferry Fare by Type of Ferry

	<i>Avg ferry fare US\$/mile</i>	<i>% of Avg LIAT cost/mile</i>
<i>Average slow ferry fares</i>	0.67	35.8
<i>Average fast ferry fares</i>	1.31	69.9
<i>All ferries</i>	1.06	56.6

Source: World Bank Group calculations.

Table 3.8 Greek Ferry Fares, Summer 2014

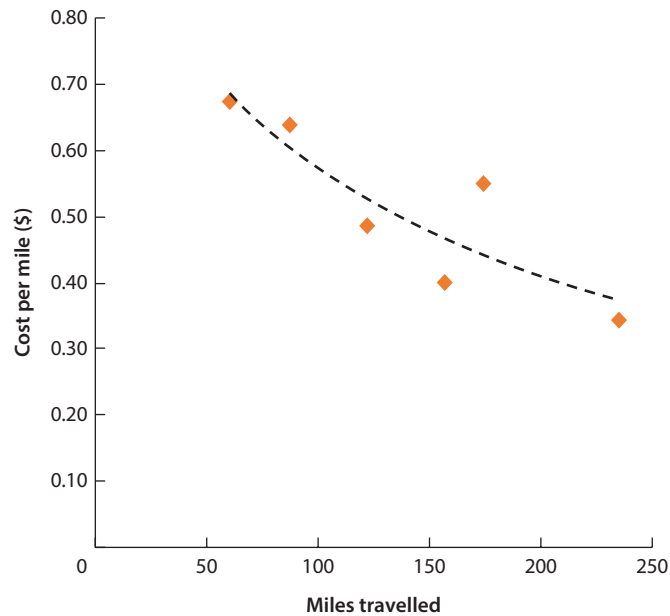
<i>Ferry service</i>	<i>Nautical miles</i>	<i>Time (hours)</i>	<i>Speed (knots)</i>	<i>Avg fare US\$</i>	<i>Fare per mile (\$)</i>	<i>Operator</i>
Athens-Crete	173.9	9.00	19.3	95.85	0.55	Superfast Ferries
Athens-Crete	173.9	11.00	15.8	68.50	0.39	Minoan Lines
Athens-Mykonos	87.0	3.25	26.8	66.25	0.76	Sea Jets
Athens-Mykonos	87.0	5.25	16.6	40.75	0.47	Blue Star Ferries
Athens-Mykonos	87.0	4.50	19.3	55.63	0.64	Hellenic Seaways
Athens-Rhodes	234.8	24.00	9.8	60.00	0.26	Aegeon pelagos
Athens-Rhodes	234.8	15.00	15.7	81.00	0.35	Blue Star Ferries
Kos-Rhodes	60.0	2.50	24.0	40.50	0.68	Dodekanisos
Athens-Chios	121.7	8.00	15.2	59.33	0.49	Minoan Lines
Athens-Leros	156.5	9.50	16.5	62.88	0.40	Blue Star Ferries
	141.7				0.50	Average

Source: Operator websites.¹⁰

Caribbean ferry fares are significantly higher than Greek fares. **Table 3.8** shows that Greek ferries charge an average of US\$0.50 per mile travelled. These ferry fares are less than half the average fares (US\$1.06) in the Eastern Caribbean. However, it must be noted that the Greek ferry system operates at a much higher scale than in the Caribbean; carrying around 18 million passengers per year. Consequently, Greek ferry vessels are several times larger than their Caribbean counterparts, and therefore reap significant economies of scale.¹¹

¹⁰ Greek ferry websites available at: <http://www.superfast.com/>; <http://www.minoan.gr/en>; <http://www.seajets.gr/hm/default.aspx>; <http://www.bluestarferries.com/site/content.asp?loc=2>; <http://www.hellenicseaways.gr/>; http://web.anek.gr/portal/page/portal/ANEK_prod; <http://www.12ne.gr/en/>; <http://www.minoan.gr/en>.

¹¹ The average capacity of a sample of Greek ferries is about 1,400 passengers and 640 cars; versus the Caribbean ferry industry, which has an average vessel capacity of only 279 passengers.

Figure 3.7 Greek Ferry Fares and Voyage Distances

Source: Operator websites; Baird and Wilmsmeier 2011.

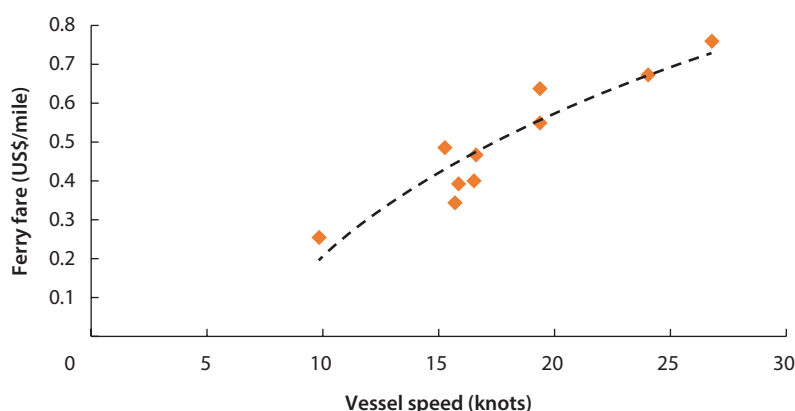
Ferry costs per mile are influenced by voyage distance (**Figure 3.6**). For example, port charges, clearance, and agency fees can total up to US\$2,000 per entry,¹² whether the vessel has travelled 10 or 100 miles from its port of embarkation. With average distances of less than 40 miles per segment, ferries will face challenges in offering an attractive per mile tariff; because fixed port charges account for a higher percentage of total costs than they do on longer voyages.

It is only on the longer voyage segments that fares fall to levels of about US\$1 per mile or lower. The one exception is the Osprey Ferry in Grenada, which has a fare of US\$0.91 per mile on a voyage of only 34 nautical miles. A similar pattern is found in the Greek ferry industry. **Figure 3.7** shows that Greek ferry fares per mile travelled decreases as voyage distance increases.

Prices are also affected by speed. The traditional slower ferries charge fares that are significantly lower than fast ferries (**Tables 3.7 and 3.8 above**); however you pay for it in higher transit times (for the time of travel associated with different vessel speeds, please see appendix F). In fact, the average fare charged by the Eastern Caribbean fast ferry operators is about 70% of the average cost per mile of a LIAT ticket in 2014 (**Table 3.7**). This is similar to the pattern found in the Greek ferry industry.¹³ **Figure 3.8** shows that fares per mile increase in direct proportion to vessel speeds.

¹² Interview with Elvis Gooding, owner/captain of HSC Jaden Sun.

¹³ Some of the justifications for why faster ferries charge higher fares are that fast ferries typically do not carry as many passengers, so cost per passenger becomes higher (see appendix F). In addition, the original cost of the boat is, often, higher, due to the expensive light materials used to allow for faster speed.

Figure 3.8 Greek Ferry Fares and Vessel Speeds

Source: World Bank Group Calculations.

To appreciate the real “cost of speed,” the following are average Greek ferry fares at different vessel speeds¹⁴:

- At average 14.1 knots; fare = US\$0.37 per nautical mile
- At average 22.4 knots, fare = US\$0.66 per nautical mile

In fact, there seems to be a global trend towards slower ferries. With virtually the world’s entire ferry fleet forced to switch from low sulfur fuel to diesel due to International Maritime Organization (IMO) efforts to curb pollution, the choice for operators is now one of raising fares or reducing transit speeds by half. Though global average operating speeds were only 11 mph to begin with, most companies have chosen to reduce this by half (5.5 mph), doubling transit times for commuters and tourists alike (Sea Phantom International n.d.). Indeed, globally, convention ferries (as opposed to fast ferries) are more in demand. Although conventional ferries constitute 24% of the total number of vessels globally, they account for 54% of passengers carried. Cruise vessels constitute 9% of the total number, but 23% of the passengers. The fast ferries have 37% of the number of vessels but only 22% of the passengers.

Given the global trends, the impact of speed on fares, and the unique features of the OECS region discussed above, conventional ferries may be an appropriate model for the region (for the impact of speed on time of travel and costs, please see appendix F). Such ferries could become part of the tourism experience for international tourists, while providing a cheaper means of getting from point A to point B for local residents. The ferry type and its appropriate speed need to be looked at through a separate feasibility study for the regional

¹⁴ Greek ferry operator websites.

ferry system, which will determine the best speed for the ferry, given the distances, input prices, potential volume of travel, as well as other factors, such as the conditions of the waters through which the vessels travel.

3.4 Cargo and Its Movement in the OECS

At a global level, the ferry market remains slightly behind the airline industry in the number of passengers carried annually. Table 3.9 shows that in 2010, the worldwide ferry industry carried 2.06 million passengers, compared with the airline industry's 2.52 million (Sea Phantom International n.d.). The global ferry market in 2012 is estimated to be worth over US\$15 billion.¹⁵ In 2007, the average numbers of passengers and vehicles carried per trip were as follows (The Cornell Group 2008):

- Passengers: 251;
- Cars: 33.6;
- Trucks: 5.4;
- Buses: 0.1.

In fact, worldwide vehicular traffic has been growing at a faster rate (6% per annum), versus about 2% per annum for passengers. Virtually all cargo on ferries is carried by trucks and trailers, driven onto Ro-Ro (Roll-on Roll-off) vessels¹⁶; which adds substantially to ferry profitability.

Table 3.9 Global Ferry and Air Traffic, 2010

<i>Global ferry market: ferry comparisons 2010</i>		
<i>Type</i>	<i>Airlines</i>	<i>Ferries</i>
Pax	2,518,852,647	2,056,062,948
Cars	0	251,497,554
Trucks	0	36,778,316
Buses	0	705,160

Source: Sea Phantom International n.d.

¹⁵ Some of the justifications for why faster ferries charge higher fares are that fast ferries typically do not carry as many passengers, so cost per passenger becomes higher (see appendix F). In addition, the original cost of the boat is, often, higher, due to the expensive light materials used to allow for faster speed.

¹⁶ Some of the justifications for why faster ferries charge higher fares are that fast ferries typically do not carry as many passengers, so cost per passenger becomes higher (see appendix F). In addition, the original cost of the boat is, often, higher, due to the expensive light materials used to allow for faster speed.

In terms of the movement of goods in the OECS, the vast majority of the region's imports originate from extra-regional sources, transported in bulk or containerized vessels. All countries of the region have trade imbalances, importing up to three or four times of their exports. This creates inefficiencies and high costs because ships return with empty containers. The ratio of imports to exports in the main shipping states of the OECS are (tonnages) (GOPA 2009):

- Dominica: 5–1;
- Grenada: 10–1;
- St. Lucia: 5–1;
- St. Vincent: 4–1

Other than a few established intra-regional trade routes, trade and traffic within and between the islands of the OECS is very limited (Tables 3.11 and 3.12). Intra-regional cargo volumes are very small (usually less than a container load (LCL) carried in informal “schooners”¹⁷), and many of the countries produce similar products (agriculture,

Table 3.10 Trade Data for the OECS (2012) EC\$ Millions

<i>Category</i>	<i>Total exports</i>	<i>Re-exports</i>	<i>Domestic exports</i>	<i>Imports</i>	<i>Balance</i>
Total	1007.00	332.59	674.41	6704.20	–5697.19
Food and Live Animals	187.31	2.66	184.65	1363.31	–1176.00
Beverages and Tobacco	113.77	4.20	109.57	258.90	–145.13
Crude Materials, Inedible Except Fuels	38.60	1.63	36.97	124.97	–86.37
Mineral Fuels and Related Materials	127.92	126.65	1.27	1516.76	–1388.84
Animal and Vegetable Oils, Fats and Waxes	1.29	0.54	0.75	41.31	–40.02
Chemicals and Related Products	80.59	6.26	74.33	469.31	–388.72
Manufactured Goods	97.69	40.43	57.26	915.12	–817.43
Machinery and Transport Equipment	233.51	58.49	175.03	1165.29	–931.78
Miscellaneous Manufactured Articles	119.43	86.06	33.37	767.28	–647.85
Commodities and Transactions not classified elsewhere in SITC	6.90	5.68	1.21	81.95	–75.06

Source: ECCB website, available at: <http://eccb-centralbank.org/>.

¹⁷ As described to the team during the mission, these are in reality small, old steel-hulled cargo boats bought second hand from Europe and other first-world markets, where they could no longer trade due to lack of compliance with modern SOLAS (Safety of Life at Sea) and MARPOL (Marine Pollution) conventions. For a description of the region's schooners, see appendix C.

Table 3.11 Intra-Regional Formal and Informal Trade, 2009

Total Intra-Regional Movements 2009: Break Bulk and Informal Cargo								
TO	FROM	Barbados	Dominica	Grenada	St. Lucia	St. Vincent	Trinidad	Total Eastern Caribbean
Per year								
Barbados		n.a.	3,315	105	1,694	1,025	—	6,139
Dominica		551	n.a.	1,591	1,755	1,241	3,331	8,469
Grenada		991	43	n.a.	203	330	17,709	19,276
St. Lucia		4,369	105	738	n.a.	1,582	8,612	15,406
St. Vincent		12,347	241	301	1,300	n.a.	34,341	48,530
Trinidad		—	420	74	5,914	2,466	—	8,874
Total Eastern Caribbean		18,258	4,124	2,809	10,866	6,644	63,993	106,694
Per week								
Barbados		n.a.	63.8	2.0	32.6	19.7	—	118.1
Dominica		10.6	n.a.	30.6	33.8	23.9	64.1	162.9
Grenada		19.1	0.8	n.a.	3.9	6.3	340.6	370.7
St. Lucia		84.0	2.0	14.2	n.a.	30.4	165.6	296.3
St. Vincent		237.4	4.6	5.8	25.0	n.a.	660.4	933.3
Trinidad		—	8.1	1.4	113.7	47.4	—	170.7
Total Eastern Caribbean		351.1	79.3	54.0	209.0	127.8	1,230.6	2,051.8

Source: GOPA 2009.

Note: n.a. = not applicable; — = not available.

agro-processing, light manufacturing) in very small quantities. **Tables 3.11 and 3.12** identify some important trade routes:

- (i) Trinidad northbound to Grenada and St. Vincent with manufactured products, returning with small volumes of non-perishable agricultural products;
- (ii) Dominica northbound to Antigua and St. Kitts with agricultural products; and
- (iii) Dominica and St. Lucia eastbound to Barbados with agricultural products, returning with light manufactured products.

In recent years, several recent studies have focused on shipping and connectivity within the Caribbean and the OECS (GOPA 2009; Briceno-Garmendia, et al. 2013; Pinnock

Table 3.12 Top 10 Intra-Regional Break Bulk Trade Routes

<i>Number</i>	<i>Route</i>	<i>Weekly tonnage 2009</i>
1	From Trinidad to St. Vincent	660.4
2	From Trinidad to Grenada	340.6
3	From Barbados to St. Vincent	237.4
4	From Trinidad to St. Lucia	165.6
5	From St. Lucia to Trinidad	113.7
6	From Barbados to St. Lucia	84.0
7	From Trinidad to Dominica	64.1
8	From St. Lucia to Dominica	33.8
9	From Grenada to Dominica	30.6
10	From St. Lucia to St. Vincent	25.0

Source: GOPA 2009.

Note: Main products: cement, building materials, lumber, scrap metal, scrap metal, beer, soft drinks, tinned foods, paper products, vegetables, ground provisions.

and Ajagunna 2012; AVRA 2011). These four studies agree on the principal features and challenges facing Eastern Caribbean trade and shipping:

- Small volumes of inter-regional trade; very little of which is containerized.
- Skewed pattern of cargo movements, with all of the islands importing multiples of what they export. For example, St. Vincent and the Grenadines imported 48,530 tons from the Eastern Caribbean region in 2009 (chiefly from Trinidad and Barbados); yet it exported only 6,644 tons to the region.
- High freight tariffs due to small volumes and imbalanced freight traffic.
- Most of the Eastern Caribbean's intra-regional traffic is carried small break-bulk vessels or "schooners."
- Most of the schooners are owned by small operators, frequently the captains, who operate in an unscheduled manner, pursuing opportunities as they arise.

Given the small volume of trade within the OECS, there is considerable excess number of ships operating within the region. According to the findings of one study: "With the present underutilization of the existing fleet, there is clearly no need to expand existing transport capacity" (GOPA 2009).¹⁸

¹⁸ For a more detailed description of cargo ships floating in the region, please see appendix D.

However, there is space for improvements in the processes of the existing transport system. In particular, some issues that stakeholders believe need to be considered are: innovation in the type of containers that would be better tailored to small trade volumes of the region; ensuring that current operating vessels are well-adapted to carry small cargo volumes; better harmonization in the scheduling and integration of the operating vessels.

Further study will be needed to determine: how the current cargo ships system could be improved and to what extent it could be integrated with a new regional ferry system; whether a new regional ferry system would be needed to facilitate the movement of goods; and how/whether a new regional ferry system could contribute to the strengthening of linkages between tourism and agribusiness at a regional level. This could be studied further within the context of a more detailed feasibility study for a regional ferry system. On the one hand, as mentioned earlier, the volume of trade is currently very low, and there is an over-supply of cargo ships in the region. On the other hand, linkages between tourism and agribusiness are generally weak in the OECS region, with opportunities for improvement. Based on a 2008 study (World Bank 2008), 89% of meat, 81% of dairy products, and 41% of fruits and vegetables consumed by the region's tourism sector are imported. The said report identifies fruits and vegetables as the areas with the strongest potential for deeper linkages with the tourism sector. According to the mentioned study, the transportation component of these products is about half of their imported value, so OECS producers could be price competitive. However, domestic markets can be saturated quickly, and attention must be paid to expanding access to regional markets. Improved access will require better intra-regional connectivity for the transport of goods. In fact, the mentioned study concludes the lack of timely, effective shipping (including refrigerated capacity) contributes to the weak development of intra-regional trade as well as to weak linkages between tourism and agriculture.¹⁹ Understanding how and whether a regional ferry system with an equipped fleet that would operate in a more efficient, scheduled and reliable manner would help in addressing these issues, or whether the existing fleet of cargo ships could be better utilized, need to be subject of a separate analysis, and should be taken into account in the feasibility assessment for the regional ferry system.

¹⁹ Some of the issues encountered when supplying the tourism sector, discussed in a 2014 Agro-Tourism Meeting (OECS Secretariat 2014) include:

- Lack of information on demand—quantity needed, quality standards, and prices offered;
- Spot market model—hotels require produce on demand rather than ordering in advance to allow time to plan production;
- Transportation challenge for delivery within the OECS region (less than container loads, LCLs);
- Late payment—over 90 days in some instances;
- Broader issues—sanitary and phytosanitary (SPS) measures to manage pests and diseases;
- Manufacturers face a challenge of seasonality in raw material supplies;
- International chefs are reluctant to use local produce in their menus;
- Politics of the corporate hospitality industry;
- Hotels being price-led, making local products price-uncompetitive;
- Product returns—hotels return many products to farmers (e.g., due to lack of storage).

3.5 Competitive Effects of a Stay-Over Tourism Strategy versus Cruise-Based Tourism²⁰

Competition effect between stay-over tourism and the cruise industry is limited, as they serve different market segments. Existing data on travelers' profiles for the Caribbean and elsewhere suggest that cruisers and stay-over tourists have significant differences in key characteristics such as age, income, and employment status. Cruisers are typically older, have higher median household income and are more likely to be retired. For example, survey data in 2011 on a sample of US customers reveal that cruisers have a median age of 47, with a median household income of \$97,000 and are 20% likely to be retired. In contrast, non-cruiser vacationers are relatively younger with a median age of 46, median household income of \$75,000 and only 15% likely to be retired (Cruise Lines International Association—CLIA 2011). Moreover, monthly data on tourist flows show that the cruise and stay-over markets exhibit different seasonality patterns (Figure 3.9). Stay-over tourist flows fluctuate year-round and peak during both summer and winter months. In contrast, cruisers tend to arrive in the winter months around December-March and stay away during May-October.

Empirically, there is evidence of both complementary and substitution effects between cruise and stay-over tourism in the OECS. Econometric analysis on aggregate tourism flow data from 1985–2004 (Bresson and Logossah 2008)²¹ reveals that there is large heterogeneity in the interacting effects between stay-over tourism flows and cruise tourism flows across the Caribbean. Nevertheless, the OECS countries in general are less likely to see crowding out in

Figure 3.9 Seasonality of Land-Based versus Cruise Tourism in the OECS
Monthly number of visitors, thousands

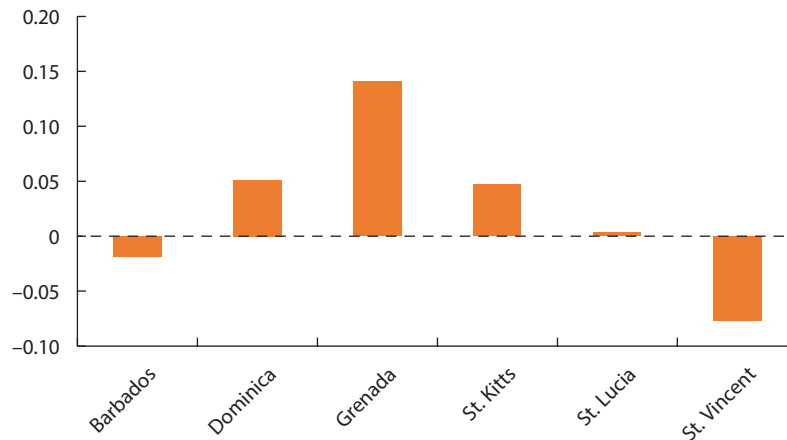


Source: Data from Tourist Boards, Central Statistics Offices, ECCU and ECCB 2014.

²⁰ A regional ferry will be used by stay-over visitors as opposed to cruise passengers. Therefore, a regional ferry would be more closely linked to a stay-over based tourism strategy rather than a cruise-based strategy. Thus, understanding the competition effects between stay-over and cruise tourism would be important.

²¹ The study also suggests a stronger trend toward crowding out effects in the more recent period. For further information, please visit the paper.

Figure 3.10 Elasticities of Stay-Over Tourism Flows to Cruise Tourism Flows (% Change in Stay-Over Tourism Given a % Change in the Cruise Tourism), 1985–2004



Source: Plotted using estimates from Bresson and Logossah (2008).

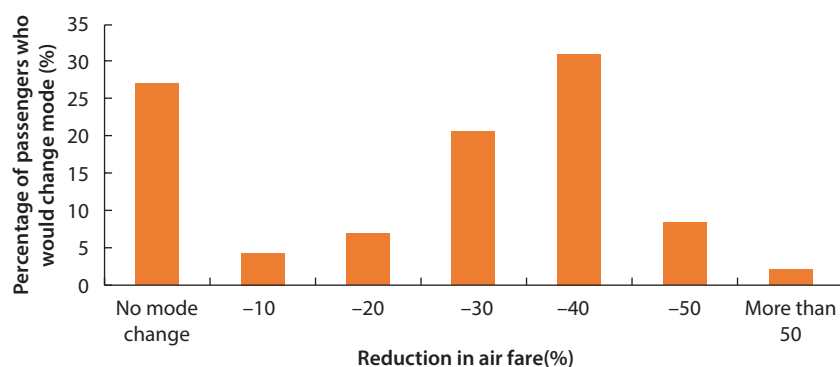
this period (Figure 3.10). In fact, Grenada experienced a strong complementary relationship between the two types of tourist flows.

If the cross-elasticities between the two types of tourism stay either positive or slightly negative (less than one) as the existing estimates suggest, substitution of cruise for stay-over tourists would likely result in a net positive impact on the economy. In the Caribbean, the oligopolistic cruise tourism industry has significant more bargaining power than individual governments and port authorities and has utilized its position to force destination countries to compete (Bresson 2009). This asymmetric market power means the profit margins for cruise destination countries are potentially minimized.

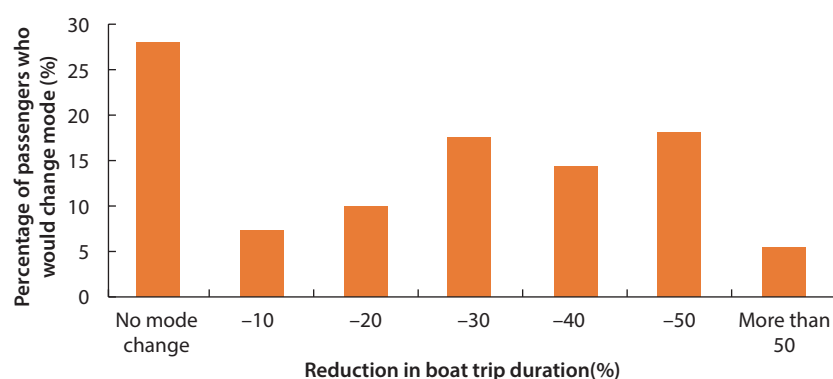
3.6 Competitive Effects of a Regional Ferry System: Sea Travel vis-à-vis Air Travel

Applying international perspectives to the OECS suggests there may be a market for OECS tourism that has remained untapped due to the unavailability of a regional ferry system. Based on the experience of Greece, and the available literature (Rigas 2009), sea and air travel serve two different market segments, with little competition between them. According to a study of Greek tourists, travelling by ferry from one island to another (i.e., island-hopping) may not be a matter of passengers' nationality but of other characteristics, such as age and nature of tourism. For example, sea travel tends to be preferred by group travelers and younger tourists, probably due to the lower fares. In contrast, passengers traveling by air tend to fall in the middle-age and higher-income categories. They also travel in groups but in lower percentages and less frequently than those opting for boats.

In addition, there is the ability to take a vehicle onto a ferry, something air travel does not provide. In fact, the ability to take motor vehicles into a ferry is key for those who travel via ferry, and one of the main reasons for why many would not switch to air travel at any cost.

Figure 3.11 Greek Air Fare Sensitivity for Sea Travelers

Source: Rigas 2009.

Figure 3.12 Greek Ferry Voyage Length Sensitivity for Air Travelers

Source: Rigas 2009.

According to the available statistics, only 30% of the ferry passengers globally are classified as Walk Ons—passengers traveling without vehicles (Sea Phantom International n.d.). Moreover, a VisitScotland commissioned research on the island-hopping market showed that around two-thirds of island-hoppers predominantly used ferries and took a vehicle. This underlines the importance of excellent ferry connections to this market segment.²²

There is some cross-elasticity of demand between air and sea travel (Figures 3.11 and 3.12) only with significant changes in price and trip durations. Based on the previously mentioned study in Greece, a small change in trip duration would not affect air demand significantly. It would take a reduction in trip duration of more than 30% for air passengers to consider taking the boat. An important segment of demand (28%) does not consider traveling by boat an alternative, no matter what the trip duration. For those who travel via sea, a small reduction in airfares would have little impact on boat demand; however, a reduction in prices of more than 30% would have an important impact in demand for sea travel (more than 60%). On the other hand, almost a third of boat passengers (27%) would not shift modes from sea to air under any circumstances.

²² Visit Scotland (2010) “Consultation response: The Scottish Ferries Review”.

While there is not a lot of information available in the OECS to assess the competitive effects of a regional ferry system on LIAT, limited past experience suggests that substitution effect might be small as there is still significant unfulfilled demand for air and ferry travel in these markets. When L'Express des Isles opened a new ferry service in 2011 between Dominica and St. Lucia (Dominica News 2011), the estimated seats on LIAT on the same route still more than doubled from 3,003 to 7,371 between 2011 and 2012.²³

Nevertheless, a regional ferry could open up competition in the market for local residents. Customer surveys conducted by LIAT in 2012 shows that the majority travels for leisure (61.9%) and family visits (20%), following by business travel (17.5%), and travel for medical purposes (0.6%) (LIAT 2012). Given non-business passengers are typically more price-sensitive and have more flexibility in travel time, the data suggests that a significant number of current LIAT customers could be potential ferry customers. If the OECS countries could overcome existing regulatory burdens to facilitate a regional ferry system, competition will likely result in lower prices and better services on both modes of transports.

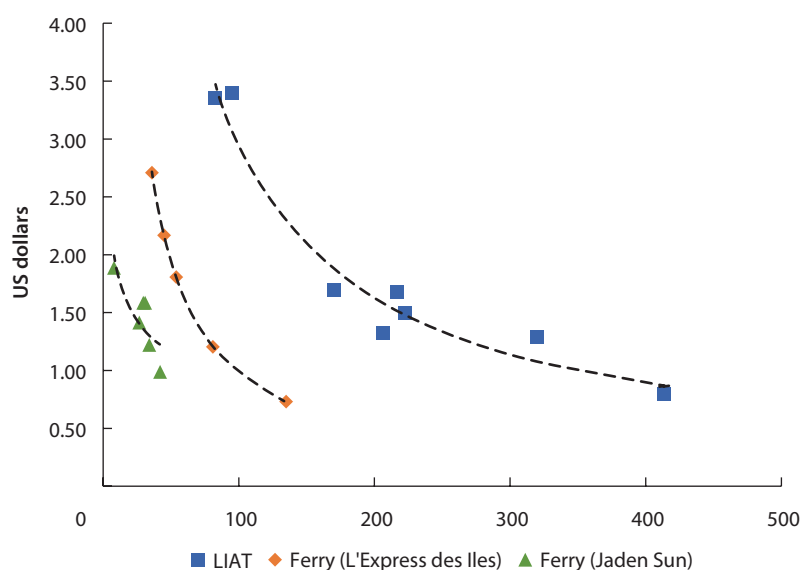
There is also potential for a regional ferry to replace LIAT's short (unprofitable) routes. According to LIAT, 35% of their flights are not profitable. One of their main challenges is having high capital intensity per seat mile due to the presence of many short trips. In 2010 for example, 50% of LIAT trips are below 100 Nms while 80% are below 200 Nms (LIAT 2010). While both the airline and ferry industries are characterized by economies of scale, per unit fixed cost for LIAT is potentially higher on routes below 100 Nms. **Figure 3.3** compares the current fare structures between LIAT and two fast ferry operators against distance travelled by route. It shows that the unit fare per mile for the two ferry companies falls with distance much faster than for LIAT initially. If we assume similar rates of mark-ups over average cost, the differences in cost per mile between air and ferry travel appear to be very high at the distance just below 100 Nms but narrow quickly between 100 and 200 Nms. If in fact, a regional ferry has a cost advantage over certain routes, there is an opportunity to put in place new ferry services, reduce the number of unprofitable flights and the needs to subsidize LIAT.²⁴

If, as the studies suggest, a ferry system would facilitate tapping into a new market of tourists, developing such a system could, potentially, make an important contribution to the economies of the OECS. According to the International Monetary Fund (IMF), the countries in the Caribbean region should focus on decisive reforms to foster competitiveness, enhance productivity and raise private sector investments. The IMF identifies diversifying the tourism market as one of the key ways of achieving this goal (IMF 2014). The concrete estimate of the contribution of the regional ferry system will depend on the type of system that would be most appropriate for the region, including the type of ferry, its capacity, fares and taxes charged, etc., which will become clear through a separate feasibility assessment.

²³ Annual data compiled from Diio transport database. Air travel capacity between Dominica and St. Lucia decreased significantly during 2007–09 partly due to LIAT's acquisition of Caribbean Star Airlines Limited and several other airlines stopping their operations. In fact, Dominica invested in LIAT in 2013 due to their dependence on the airline (Briceno-Garmendia et al. 2014).

²⁴ On the other hand, a negative impact is to drive the market for air travel on certain routes even thinner to eventually disappear. Consumers with the most inelastic demand (such as business travelers) might be worse off.

Figure 3.13 Fare per Mile by Distance Traveled on LIAT and Regional Ferries



Source: World Bank staff calculations based on sample fares published on operators websites on selected routes.

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CHAPTER 4

Recommendations

Based on the analysis contained in this paper, the table below contains a number of concrete recommendations and next steps. In summary, the recommendations highlight that it is important to facilitate regional collaboration, including facilitating the movement of people and goods by assessing the feasibility of a regional ferry system and facilitating its implementation should it be feasible (this includes preparing and carrying out the bidding process, developing strategies to fund the infrastructural gaps and addressing infrastructural issues and regulatory obstacles that hinder the movement of people and goods); enhancing the uniqueness of each island and the experiences of tourists on each island; and developing and implementing regional tourism promotion approaches that would highlight the region as one destination, while emphasizing the uniqueness of each island.

Table 4.1 Recommendations On the Way Forward

<i>Issues</i>	<i>Recommendations</i>	<i>Next steps</i>
<p>The regional ferry</p> <p>Based on the discussions in this paper, key obstacles include: Poor connectivity within the region, with unreliable regional air transport services, and unreliable and cumbersome alternative travel within the region by ferry; burdensome procedures for travel amongst the islands, such as lack of streamlined visa and immigration processes.^a</p> <p>Some infrastructure-specific obstacles related to the ferry system mentioned earlier include bunker and fuel-related issues, lack of maritime training schools in the Organization of Eastern Caribbean States (OECS), lack of/shortage of spare parts and specialist services for vessels, as well as shore-based infrastructure (such as ferry terminals, docks, and facilities for fast processing of passengers).</p>	<p>Phase I—Assessing the feasibility of a regional ferry system: Carry out a feasibility assessment of a regional ferry system, for carrying passengers, cargo and vehicles. This means undertaking the following:</p> <ol style="list-style-type: none"> 1) A detailed market study and passenger survey—both international and regional—on ferry demand by route, time preferences, willingness to pay, etc. 2) A detailed market study focusing on cargo shipping; notably exploring whether/how a new regional ferry system could be integrated into the current cargo system and how the cargo current system could be improved. 3) A technical assessment of vessel types suited to Caribbean marine conditions and market environment (taking into account existing supply of cargo ships in the region, passenger and cargo flows, etc. The details of the various considerations can be found in appendix F). 4) Assess the profitability of individual routes as well as an overall regional ferry network. This would determine what business model is more appropriate and which procurement method is adopted (see below). 	<ol style="list-style-type: none"> 1) Oversee the process of feasibility assessment, including the carrying out of a detailed tourism market survey and cargo market study. Some of the criteria used for the feasibility assessment of the regional ferry system can be found in appendices E and F. 2) Secure funding and hiring of the necessary experts to carry out the mentioned tasks. 3) Complete a detailed business and investment plan, as well as an approach for investment in ferry and its operation, including arrangements for service agreement for the operation of a regional ferry services, if appropriate. 4) Build consensus among regional governments and stakeholders on the business plan and test their willingness to take the ferry opportunity to market. 5) Secure agreements from participating governments on fiscal incentives and trade, customs & immigration reforms. 6) Obtain agreements on use of docking facilities 7) Obtain government commitments to invest in new and/or upgraded shore-side facilities, specific to a ferry operation. 8) Secure commitments from governments and/or donors on viability gap financing. 9) Determine service levels for the system.

Issues	Recommendations	Next steps
	<p>Phase II (a)—(Should Phase I demonstrate that a regional ferry is feasible) carry out a regional procurement for the regional ferry system: Carry out a regional procurement process for a regional ferry service. This will require replacing the current approach of ad-hoc discussions between individual governments and random investors with a coordinated and organized regional process. There are two options for bidding out the ferry opportunity:</p> <ol style="list-style-type: none"> 1) All the proposed ferry routes can be bundled into one overall package which will be bid out as an integrated regional ferry operation. 2) Individual routes can be bid out on a route by route basis. <p>The choice of which approach is desirable will be determined by the feasibility study.</p>	<p>The procurement process for a regional ferry service needs to be a regional effort, and would be similar whether bidding out an integrated ferry network or individual routes. The process could be divided into three phases:</p> <p>Preparatory Phase:</p> <ol style="list-style-type: none"> 1) Establish working teams at country and regional levels. 2) Obtain funding and support commitments from governments, donors, etc. for the procurement process. 3) Engage specialist consultants for the procurement process. 4) Advertise tender in regional media plus specialist shipping press. <p>Tender and Bidding Phase:</p> <ol style="list-style-type: none"> 1) Launch prequalification process. 2) Draft Public Service Contracts (PSCs^b) & other contract documents. 3) Issue Request for Qualification.^c 4) Announce prequalified bidders. 5) Issue Information Memorandum.^d 6) Bidders' due diligence and pre-negotiation of transaction documents (including subsidy funding, as appropriate). 7) Invite bids. 8) Bid evaluation & announcement of preferred bidder. <p>Operational / Monitoring Phase:</p> <ol style="list-style-type: none"> 1) Procure vessels and equipment; launch operations. 2) Monitor key performance indicators. 3) Maintain data on traffic, operating and financial performance of ferry operator. 4) Compliance analysis of service provision against contractual minimum standards. 5) Long term market conditions and performance standards evaluation: with a view to launching additional procurement rounds.

table continues next page

Table 4.1 Recommendations On the Way Forward (*continued*)

<i>Issues</i>	<i>Recommendations</i>	<i>Next steps</i>
	<p>Phase II (b)—(No matter what the outcome of the feasibility study is) Addressing regulatory and infrastructural issues: Develop a strategy to address regulatory and infrastructural issues that limit the ability of people (and goods) to travel within the region.^e This will improve the framework for increased interisland travel even if the ferry project is shown to be non-viable.</p> <p>These include: (a) review of the existing regional immigration system (CARISEC); (b) review of existing OECS Treaty on common economic space and identification of potential regulatory gaps on free movement of people and goods; and (c) development and implementation of a regional legislation on OECS visa.^f</p>	<p>Develop a concrete roadmap with concrete actions to address infrastructural issues identified.</p> <p>Identify the laws and operational procedures that will need to change/be harmonized in each country to allow for a cheap and easy movement of people, cargo and motor vehicles in the region, and develop a roadmap for implementing the changes.</p>

a. In addition, cost and limited frequency and routing of airlines to the region (an area that is important but not covered within the scope of the present paper) is also an important issue to tackle.

b. A Public Service Contract (PSC) is an agreement whereby a private operator performs public services, usually at stipulated rates and schedules; in return for receiving some form of public subsidy from the government.

c. A Request for Qualifications (RFQ) usually refers to the pre-qualification stage of a competitive procurement process; only bidders who successfully respond to the RFQ and meet the prequalification criteria will be included in the subsequent Request for Proposals (RFP) solicitation process.

d. An Information Memorandum is a legal document providing bidders with complete financial, business and legal information on a proposed transaction; usually issued to prequalified bidders in a structured transaction process.

e. In addition, an important issue that is not covered in this paper but is important to address includes developing concrete strategies for optimizing the benefits of airlift to the region and travel by air within the region.

f. Recommendations provided by Anca Dumitriscu, Senior Transport Specialist, World Bank.

APPENDIX A

OECS Tourism Competitiveness in a Global Context¹

A.1 Global Tourism Trends and Outlook

This section provides an overview of key global trends in the tourism sector in 2013. It is divided into five parts: the first section examines the overall global tourism performance, notably focusing on trends in international arrivals and receipts, as well as on main market sources of tourists and tourism spending in 2013—both in terms of relative growth and absolute share. The second and third parts break down global trends in international tourist arrivals and receipts at the regional level. The fourth part assesses the Travel & Tourism (T&T) competitiveness of each region. Finally, the last part examines prospects for the tourism sector in 2014 and beyond.

A.1.1 Overall Tourism Performance

Following the financial crisis—in a difficult economic climate and shrinking budgets—the tourism sector has demonstrated remarkable resilience. In 2013, the global tourism sector proved once again its strong capacity to adapt to changing market conditions. In a global economy showing signs of fragile recovery from the financial crisis but still functioning in “low gear,” the number of international tourist arrivals has increased over the past year. The United Nations World Tourism Organization (UNWTO) estimates that international inbound tourism grew by 5% in 2013. An additional 52 million tourists² travelled in 2013, reaching a total of 1,087 million (see Figure A.1).

Growth in international receipts also increased, by 5% in real terms, in 2013. Tourism receipts worldwide reached an estimated US\$1,159 billion in 2013. In absolute terms, receipts around the world grew by US\$ 81 billion, from US\$ 1,078 billion in 2012 (UNWTO 2014a).

The tourism sector remains critical for economic development and sustaining employment, in both advanced and developing economies. A strong tourism sector directly contributes to

¹ This appendix has been prepared by Julie Barbet-Gros, with guidance from Raha Shahidsaless and input from Brian Samuels.

² “A visitor (domestic, inbound or outbound) is classified as a tourist (or overnight visitor), if his/her trip includes an overnight stay” (UNWTO 2014c).

Figure A.1 International Tourist Arrivals, 1995–2013

Source: UNWTO 2014b.

* = provisional data

national income and improves balance of payments, while also making significant indirect contribution, via tourism's multiplier effect. Tourism helps connect countries and economic sectors, and provides an impetus for the development of infrastructure—critical attributes for a country's economic competitiveness. Tourism may also support the development of value chains; such as with agribusiness and transportation. In 2012, the tourism industry accounted for one in eleven jobs on the planet. In the same year, the sector accounted for 9% of GDP (translating into US\$ 6 trillion), providing 120 million direct jobs and another 125 million jobs in related industries. Many developing economies are in the process of shifting away from manufacturing to service economies, which are generally much more labor-intensive than mechanized, manufacturing economies. As this shift occurs, the share of tourism employment out of total employment will probably increase further, as will the share of tourism contribution to total GDP (WEF 2013).

Developing economies—especially China and the Russian Federation—have been leading growth in international tourism spending in 2013. **Table A.1** shows that most countries that traced significant growth in 2013 were developing economies. The rising purchasing power of the growing middle class in some of these economies has driven global tourism spending trends upwards. As of 2012, Chinese tourism spending had increased almost eightfold in 12 years. In 2013, China continued its surge, sustaining the highest growth worldwide in tourism spending, with an increase of 26.1% in spending, up to a total of US\$128.6 billion (UNWTO 2013a; WEF 2013). As **Table A.1** shows, China was followed closely by Russia, which increased its spending by 24.9% in 2013, reaching a total of US\$53.5 billion. In comparison, the performance of key advanced economy source markets was moderate, with the exception of Australia, which increased spending by 8.8%. France increased spending by 4.9%, recovering from a weak 2012, whereas growth in tourism spending by the United States, Germany, the United Kingdom, and Canada ranged between 2.3% and 3.5%.

Table A.1 International Tourism Expenditure by Country, 2013

<i>Rank^a</i>	<i>Country</i>	<i>2013 (US\$ billion)</i>	<i>13/12 (percent of change)</i>
1	China	128.6	26.1
2	Russian Federation	53.5	24.9
3	Turkey	4.8	17.7
4	Kuwait	10.4	17.6
5	Qatar	6.6	17.1
6	Taiwan (province of China)	12.3	16.7
7	Egypt, Arab Rep.	3.0	15.1
8	Columbia	3.0	13.9
9	Ukraine	5.8	12.9
10	Norway	18.4	12.3

Source: UNWTO 2014a.

a. Based on 13/12 % change and out of the top 50 countries worldwide holding largest shares of international tourism spending.

Table A.2 International Tourism Expenditure by Country, 2000–13

US\$ billion

<i>Rank</i>			<i>2000</i>	<i>2005</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013*</i>
<i>'13</i>	<i>'12</i>							
		World	476	681	931	1,042	1,078	1,159
1	1	China	13.1	21.8	54.9	72.6	102.0	128.6
2	2	United States	65.4	69.9	75.5	78.2	83.5	86.2
3	3	Germany	53.0	74.4	78.1	85.9	81.3	85.9
4	5	Russian Federation	8.8	17.0	26.7	32.9	42.8	53.5
5	4	United Kingdom	38.4	59.6	50.0	51.0	51.3	52.6
6	6	France	22.6	31.8	38.8	44.9	39.1	42.4
7	7	Canada	12.4	18.0	29.7	33.4	35.0	35.2
8	8	Australia	6.4	11.8	22.5	27.3	28.0	28.4
9	10	Italy	15.7	22.4	27.1	28.7	26.4	27.0
10	12	Brazil	3.9	4.7	16.4	21.3	22.2	25.1

Source: UNWTO 2014a.

Note: * = provisional data

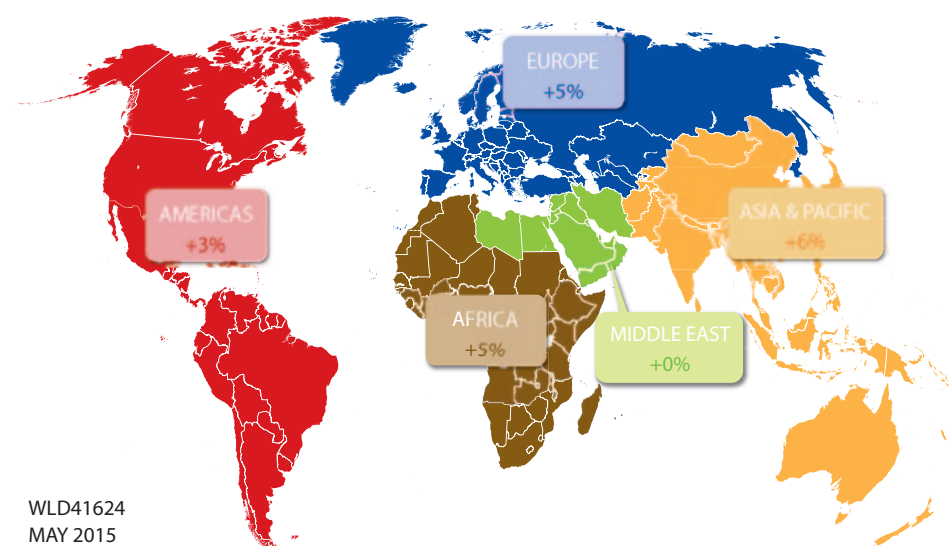
China also maintained the highest share in total international tourism spending worldwide, outperforming the United States. This represents a staggering pace of growth, as in 2005, China was ranked only 7th worldwide in international tourism spending. In 2012, China became the world largest tourism spender, overtaking long-time top spenders Germany and the United States which now respectively hold 3rd and 2nd position in the ranking. Aside from China, Russia also showed an impressive increase in tourism spending in recent years; moving up to two places in 2012 and up to one more place in 2013, reaching the 4th place in the ranking (see **Table A.2**). As a result, the United Kingdom fell down to 5th place in 2013. Brazil also moved up two places in 2013, entering the top ten spenders in the world, with a total of US\$ 25.1 billion (UNWTO 2014a). However, key traditional source markets together still held the majority of total international spending worldwide. **Table A.2**, which displays the top 10 countries in international tourism expenditure, shows that 7 countries out of 10 are advanced economies, with spending ranging from US\$ 86.2 billion (the United States, 2nd position) to US\$ 27.0 billion (Italy, 9th position).

A.1.2 International Tourist Arrivals—Regional Breakdown

As with outbound tourism spending, the performance of developing economies was also strong in tourist arrivals. Many developing markets are becoming increasingly attractive tourist destinations, and this has been reflected in tourist arrival trends at the regional level, especially in the Asia Pacific. Indeed, when breaking down the global growth pattern in international tourist arrivals, **Map A.1** shows that relative growth was strongest in the Asia

Map A.1 International Tourist Arrivals, 2013–12

Percent of change



Source: UNWTO 2014a.

Pacific (6%) where the number of international tourist visits grew by 14.5 million in 2013, reaching a total of 248.1 million arrivals. Growth in demand for international tourism was also high in Europe (5%) and in Africa (5%), with an additional 2.9 million arrivals, reaching new a record of 55.8 million.

In line with these regional trends, at the sub-regional level, the strongest growth performance in 2013 occurred within the Asia Pacific region: in South-East Asia (10.5%). Within Europe, growth was led by Central & Eastern Europe (6.5%) as well as Southern & Mediterranean Europe (5.7%). In Africa, North Africa was the sub-region that demonstrated most robust growth (6.1%). In the Americas, both Central America and North America grew by approximately 4% in 2013 (UNWTO 2014a).

At the country level, relative growth in tourist arrivals was strongest in Thailand with a 26.5% increase compared to 2012, followed closely by Japan, with arrivals increasing by 24.0%. **Table A.3** shows that the United Arab Emirates, Kazakhstan and Vietnam also showed robust growth in tourist arrivals in 2013, with approximately 11%. In the rest of the top ten ranking, growth ranged from 10.2% to 9.3%.

Despite the robust growth performance of developing economies, Europe still welcomed the most tourists in 2013. Europe led in absolute growth, welcoming an additional 29.0 million tourists, raising the overall number of tourists to 563.4 million. As **Figure A.2** shows, Europe accounted for 51.8% of world inbound tourism in 2013. This performance is quite remarkable in light of the economic challenges in the region and as it follows an already robust 2011 and 2012. In 2013, the Asia Pacific region held a 22.8% share of world inbound tourism, with 248.1 million tourists, followed by the Americas which received a 15.5% share; and the Middle East and Africa, which both embraced a modest share of approximately 5%.

Table A.3 International Tourist Arrivals by Country of Destination, 2013

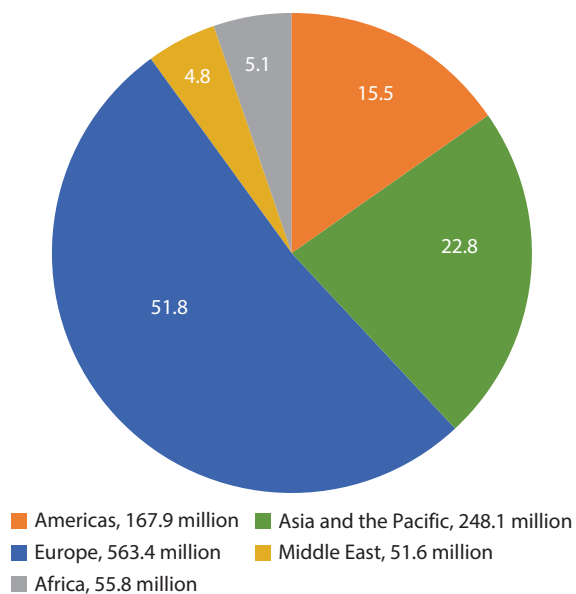
<i>Rank^a</i>	<i>Country</i>	<i>2013 (million)</i>	<i>13/12 (percent of change)</i>
1	Thailand	18.8	26.5
2	Japan	10.4	24.0
3	United Arab Emirates	10	11.3
4	Kazakhstan	4.9	11.0
5	Vietnam	7.6	10.6
6	Russian Federation	28.4	10.2
7	Philippines	4.7	9.6
8	Taiwan (province of China)	8.0	9.6
9	Indonesia	8.8	9.4
10	Korea, Rep.	12.2	9.3

Source: UNWTO 2014a.

a. Based on 13/12 % change and out of the top 50 countries worldwide holding largest shares of international tourist arrivals.

Figure A.2 International Tourist Arrivals by Region, 2013

Percent of share



Source: UNWTO 2014a.

Table A.4 International Tourist Arrivals by Country of Destination, 2000–13
Million

Rank			Series	2000	2005	2010	2011	2012	2013*
'13	'12								
		World		677	807	948	995	1035	1087
1	1	France	TF	77.2	75.0	77.6	81.6	83.0	—
2	2	United States	TF	51.2	49.2	60.0	62.7	66.7	69.8
3	4	Spain	TF	46.4	55.9	52.7	56.2	57.5	60.7
4	3	China	TF	31.2	46.8	55.7	57.6	57.7	55.7
5	5	Italy	TF	41.2	36.5	43.6	46.1	46.4	47.7
6	6	Turkey	TF	9.6	24.2	31.4	34.7	35.7	37.8
7	7	Germany	TCE	19.0	21.5	26.9	28.4	30.4	31.5
8	8	United Kingdom	TF	23.2	28.0	28.3	29.3	29.3	31.2
9	9	Russian Federation	TF	19.2	19.9	20.3	22.7	25.7	28.4
10	15	Thailand	TF	9.6	11.6	15.9	19.2	22.4	26.5

Source: UNWTO 2014a.

* = provisional data; — = not available; TF = international tourists arrivals at frontiers (excluding same day visitors); TFE = international tourist arrivals at collective tourism establishments.

The two sub-regions which accounted for the largest share of international tourist arrivals in 2013 were both in Europe: Southern & Mediterranean Europe (201.4 million) and Western Europe (174.3 million). In the Asia Pacific region, North East Asia held almost half the region total share of visits, with 127.0 million arrivals out of the 248.1 million arrivals in the overall region. In the Americas, North America handled more than 2/3 of the total regional share of visits, welcoming a total of 110.1 million tourists. Within Africa, the Sub-Saharan region hosted the most tourists, with a total of 36.2 million arrivals (UNWTO 2014a).

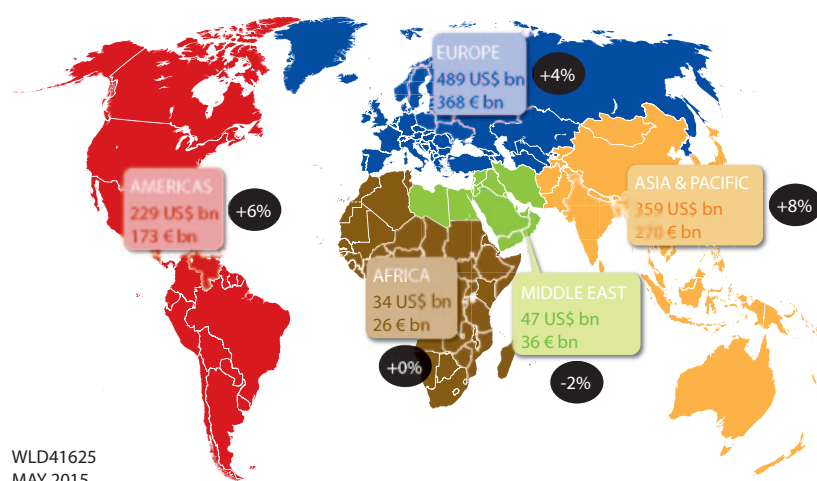
At the country level, France maintained the largest share of tourist arrivals in 2013; followed by the US, with 69.8 million arrivals; and Spain, with 60.2 million arrivals. However, **Table A.4** shows that the top ten countries included four emerging economies: China (55.7 million arrivals); Turkey (37.8 million arrivals); Russia (28.4 million arrivals) and Thailand (26.5 million arrivals), which moved from the 15th to the 10th position in the ranking. The remaining three countries in the top ten were Italy, with 47.7 million arrivals; Germany, with 31.5 million arrivals; and the United Kingdom, with 31.2 million arrivals.

A.1.3 International Tourism Receipts—Regional Breakdown

As with international tourist arrivals, the Asia Pacific was the fastest growing region in international tourism receipts in 2013, with a rise of 8%. **Map A.2** shows that the Americas and Europe also recorded robust increases in receipts with 6% and 4% respectively. Growth in international tourism receipts slightly outpaced growth in international tourist arrivals in most regions, apart from Africa and the Middle East where growth in receipts was below growth in tourist arrivals.

Map A.2 International Tourism Receipts by Region, 2013

Billion



Source: UNWTO 2014a.

At the sub-regional level, South-East Asia showed the highest growth in international tourism receipts with a surge of 9.7%; followed closely by North East Asia which grew by 9.3%. Just like for growth in tourism arrivals, and in line with regional trends, the Asia Pacific region was home of the two fastest growing sub-region in the world in international tourism receipts. Within Europe, patterns for this indicator varied in comparison to the tourist arrival indicator, as growth in the region was mainly driven by Northern Europe, with a 7.1% increase, rather than Eastern and Southern Europe. In the Americas, tourism receipts growth was led by North America with a progression of 7.8%, reaching a total of US\$ 171.0 billion. Finally, within Africa, North Africa growth in receipts decreased by -1.4, while the Sub-Saharan region grew by only 0.6% (UNWTO 2014a).

At the country level, Asian Pacific destinations dominated the ranking in tourism receipt growth. As **Table A.5** suggests, all four leading destinations in tourism receipts were in the Asia Pacific, led by Japan (25.3%), Thailand (23.1%); and Hong Kong SAR, China and Macao SAR, China (respectively 17.7% and 18.1%). Asia Pacific was also home of 3 additional countries in the top 10 demonstrating robust growth: the Philippines (15.3%), India and Indonesia (respectively 12.0% and 12.2%). The two remaining European countries in the ranking: Greece and the United Kingdom, also posted double-digit increases, progressing by 14.9% and 13.2% respectively.

As with tourist arrival indicator, Europe maintained the largest share of international tourism receipts worldwide (42.2%) with an additional US\$ 35.3 billion in 2013, reaching a total of US\$ 489.3 billion. However, it is worth noting that Europe's share of receipts was less significant than its share of tourist arrivals in 2013, which accounted for more

Table A.5 International Tourism Receipts by Country, 2013

<i>Rank^a</i>	<i>Country</i>	<i>2013 US\$ billion</i>	<i>12/13 Percent of change</i>
1	Japan	14.9	25.3
2	Thailand	42.1	23.1
3	Macao SAR, China	51.6	18.1
4	Hong Kong SAR, China	38.9	17.7
5	Philippines	4.7	15.3
6	Greece	15.9	14.9
7	United Kingdom	40.6	13.2
8	Indonesia	9.3	12.2
9	India	18.4	12.0
10	Russia Federation	12.0	11.4

Source: UNWTO 2014a.

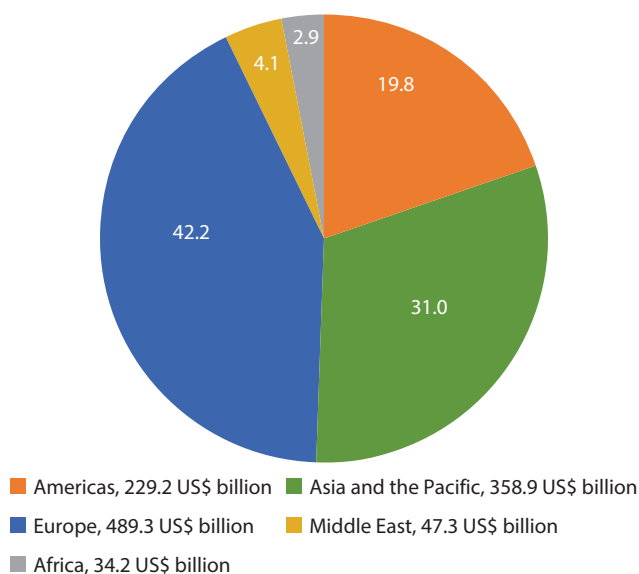
a. Based on 13/12 % change and out of the top 50 countries worldwide holding largest shares of international receipts.

than half of total tourists (51.8%). Africa and the Middle East also held a smaller share of global tourism receipts than global tourist arrivals, respectively holding 2.9% and 4.1% of total receipts. In contrast, **Figure A.3** shows that the Asia Pacific and the Americas regions received a higher share of global receipts than of global tourist arrivals. In 2013, the Asia Pacific accounted for 31.0% of tourism receipts worldwide, increasing earnings by US\$ 29.8 billion to reach US\$ 358.9 billion, while it held 22.8% of global tourist arrivals. In the same way, the Americas held a 19.8% share of worldwide receipts, increasing by US\$ 16.3 billion to a total of US\$ 229.2 billion, while it only held a 15.5% share of global tourist arrivals.

The leading sub-regions which received the highest shares of global tourism receipts in 2013 were also usually the ones that accounted for the largest share of international tourist arrivals. Indeed, as with tourist arrivals, the highest share of tourism receipts worldwide was embraced by Southern & Mediterranean Europe, which accounted for US\$ 187.3 billion in tourism receipts. Again, as with tourist arrivals, Europe was led by Southern & Mediterranean Europe and by Western Europe, which received US\$ 167.9 billion. Within the Asia Pacific, North-East Asia held the largest share of regional tourism receipts in 2013, with US\$ 184.7 billion. Americas' overall share of tourism receipts was led by North America, with a total of US\$ 171.0 billion while Africa's overall share was led by Sub-Saharan Africa, which enclosed US\$ 24.0 billion in receipts in 2013 (UNWTO 2014a).

Figure A.3 International Tourist Receipts by Region, 2013

Percent of share



Source: UNWTO 2014a.

Table A.6 International Tourism Receipts by Country of Destination 2000–13*US\$ billion*

Rank			2000	2005	2010	2011	2012	2013*
'13	'12							
		World	476	681	931	1,042	1,078	1,159
1	1	United States	82.9	82.2	103.5	115.6	126.2	139.6
2	2	Spain	30.0	48.0	52.5	60.0	56.3	60.4
3	3	France	33.0	44.0	47.0	54.8	53.6	56.1
4	4	China	16.2	29.3	45.8	48.5	50.0	51.7
5	5	Macao (SAR, China)	3.2	7.9	27.8	38.5	43.7	51.6
6	6	Italy	27.5	35.4	38.8	43.0	41.2	43.9
7	9	Thailand	7.5	9.6	20.1	27.2	33.8	42.1
8	7	Germany	18.7	29.2	34.7	38.9	38.1	41.2
9	8	United Kingdom	21.9	30.7	32.4	35.1	36.2	40.6
10	10	Hong Kong (SAR, China)	5.9	10.3	22.2	28.5	33.1	38.9

Source: UNWTO 2014a.

Note: * = provisional data

At the country level, the United States received the largest share of international tourism receipts, with a total of US\$ 139.6 billion. As Table A.6 shows, the US performed very well in 2013, and its share of tourism receipts was more than twice the share of the 2nd country in the ranking, namely Spain, which collected US\$ 60.4 billion. Among the top ten tourism destinations in international tourism receipts, France ranked 3rd, with US\$ 56.1 billion, followed by China, with US\$ 51.7 billion and Macao SAR, China, with US\$ 51.6 billion. The rest of the countries in the top 10 ranged from US\$ 43.9 billion (Italy) to US\$ 38.9 billion (Hong Kong SAR, China), and Thailand progressed from the 9th to the 7th place in the top 10.

A.1.4 Tourism and Travel Competitiveness—Regional Breakdown

Europe remained the leading region in tourism competitiveness, according to the ranking of the latest T&T Competitiveness report from the World Economic Forum (WEF). Table A.7 shows that all top five spots—out of the 140 economies assessed in the latest report—in 2013 were held by European countries. Switzerland maintained its top position in the rankings, which it has retained for five consecutive editions, since the very first T&T Competitiveness Report. The remaining four European countries at the top of the ranking were: Germany and Austria, both with an overall score of 5.39; and Spain and the United Kingdom, both with an overall score of 5.38. Measurement of the overall score was based on the performance of three main pillars: T&T regulatory environment; business environment and infrastructure; T&T human, cultural and natural resources.

Table A.7 Travel and Tourism Competitiveness Index, 2013 and 2011

Country/economy	2013		2011
	Rank/140	Score	Rank/139
Switzerland	1	5.66	1
Germany	2	5.39	2
Austria	3	5.39	4
Spain	4	5.38	8
United Kingdom	5	5.38	7
United States	6	5.32	6
France	7	5.31	3
Canada	8	5.28	9
Sweden	9	5.24	5
Singapore	10	5.23	10

Source: WEF 2013.

Regional breakdowns in the WEF report assess the top competitive countries within each region. The Americas was led by the United States with an overall score of 5.32, followed by Canada (5.28 overall score) and Barbados (4.88 overall score). In the Asia Pacific region, countries that performed best were Singapore, with an overall score of 5.23, Australia and New Zealand (both 5.17 overall score). The Middle East and North Africa region of the WEF report was led by the United Arab Emirates, scoring 4.86, followed by Qatar (4.49 overall score) and Israel (4.34 overall score). Finally, countries at the top of the ranking in Sub-Saharan Africa were: the Seychelles (4.41 overall score), Mauritius (4.23 overall score) and South Africa (4.13 overall score) (WEF 2013).

A.1.5 Prospects for the Tourism Sector in 2014 and Beyond

The positive results of the tourism sector in 2013 and the expected global economic improvements in 2014 set the stage for another positive year for tourism worldwide. As prospects for the global economy are gradually brightening, the improving economic outlook will support further growth in the travel and tourism sector. The UNWTO expects that growth in international arrivals will continue in 2014 and beyond, as highlighted by **Figure A.4**. The organization forecasts an increase by 4–4.5% in 2014, above its long-term forecast of 3.8% per year between 2010 and 2020.

The tourism industry, which now accounts for one in eleven jobs worldwide, could rise to one in ten jobs by 2022. The annual economic impact research carried out by the World Travel and Tourism Council and Oxford Economics found, in part, that direct T&T employment is expected to grow at an average 1.9% per annum over the next 10 years, compared with total employment growth of 1.2% each year through to 2022 (WEF 2013).

Figure A.4 Actual Trend versus Projection Towards 2030

Source: UNWTO 2014b.

* = provisional data

In 2014, at the regional level, the UNWTO expects that prospects for the Asia Pacific region will remain the strongest, with growth in tourist arrivals expected to reach 5–6%. The UNWTO projects an increase in Africa between 4% and 6% compared to 2013, while both Europe and the Americas are expected to grow between 3% and 4% (UNWTO 2014b).

A.2 Caribbean versus World and Americas Tourism Performance

This section looks at the tourism performance of the Caribbean region in 2013, in comparison to the rest of the world and the wider Americas. It is divided into five sections: The first section examines trends in international tourist arrivals, both in terms of relative growth and absolute share of arrivals. The second section focuses on market sources of tourist arrivals to the region. The third examines trends in tourism receipts, both in terms of relative growth and absolute share, and hotel performance. The fourth section assesses the competitiveness of the Caribbean region, based on the latest WEF report published in 2013. Finally, the last section looks at prospects for the tourism sector in the region in 2014.

A.2.1 International Tourist Arrivals

In 2013, growth in tourist arrivals in the Caribbean does not compare favorably to the global average. In 2013, the Caribbean struggled to maintain growth levels with a growth rate of 2.2%, as compared to 3.0% between 2011 and 2012. As Table A.8 shows, growth in

Table A.8 International Tourist Arrivals, 2012–13

	2012 (million)	2013 (million)	13/12 (percent of change)
World	1035	1087	5.0
Europe	534.4	563.4	5.4
Asia and the Pacific	233.5	248.1	6.2
Americas	162.7	167.9	3.2
North America	106.4	110.1	3.5
Central America	8.9	9.2	4.2
South America	26.7	27.4	2.6
Caribbean	20.7	21.2	2.2
Africa	52.9	55.8	5.4
Middle East	51.7	51.6	–0.2

Source: UNWTO 2014a.

arrivals in the Caribbean in 2013 was well below the global average. It was also below the average growth rate in the Americas, of 3.2%. In comparison to all regions, the Caribbean ranks second to last, just before the Middle East, which retracted by –0.2%.

Within the Americas, the growth performance of the Caribbean compared to other sub-regions was fairly weak. At the sub-regional level, **Table A.8** highlights that the Caribbean placed last in the rankings. North America led growth within the Americas, with a rise of 3.5% in tourist arrivals; followed by Central America (4.2%) and South America (2.6%).

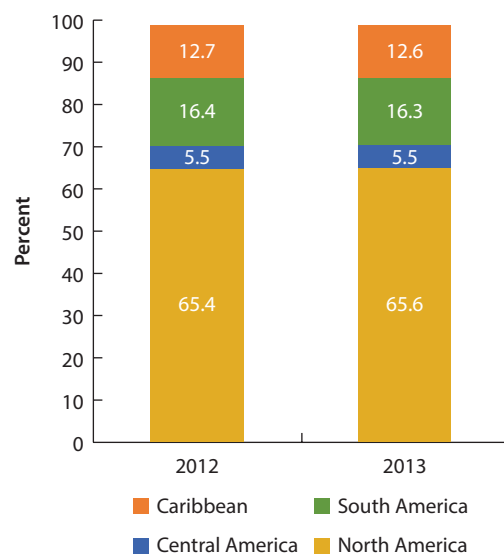
At the country level, patterns within the Caribbean region were disparate, with a wide range between the top performers and the countries at the bottom of list. In the Caribbean, Haiti had the highest growth in tourists in 2013, with 20.2%; followed by Guyana, with 11.6%; and Aruba, with 8.3% growth. The performance of these countries was competitive compared to the top performers at the global level in 2013. At the bottom of the list, arrivals to Barbados shrank by 5.2%, US Virgin Islands by 4.7% and St. Vincent and the Grenadines by 3.5% (CTO 2014a; UNWTO 2014a).

In 2013, the Caribbean held 1.9% share of worldwide tourist arrivals and 12.6% share within the Americas region, with a total of 21.2 million arrivals. **Figure A.5** shows that in 2013, North America held 65.6% of total tourists within the Americas, with a total of 110.1 million arrivals. North America was followed by South America (16.3%); the Caribbean; and Central America, which only collected a 5.5% share translating into 9.2 million arrivals.

At the country level, the Dominican Republic, received by far the most tourists in the region with 4.7 million arrivals; followed by Cuba (2.9 million) and Jamaica (2.0 million). However, on the global stage, these numbers remain modest in comparison to the 2013 top ten performers worldwide—displayed in **Table A.4**—which ranged from 69.8 million

Figure A.5 Tourist Arrivals by Sub-Region, 2012–13

Percent of share



Source: UNWTO 2014a.

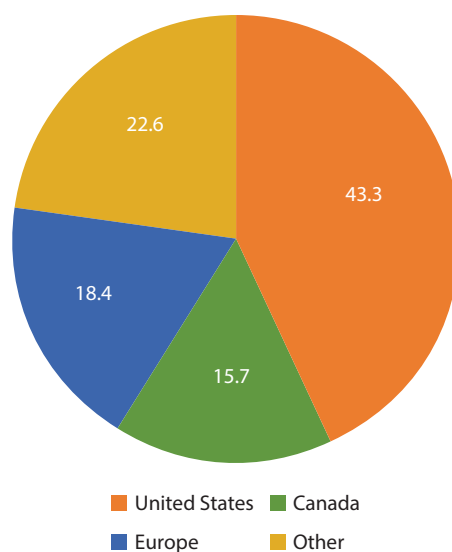
tourist arrivals (the United States) to 26.5 million (Thailand). Two additional countries received more than 1 million tourists this year: Puerto Rico (1.6 million) and the Bahamas (1.4 million). Most other Caribbean destinations received below one million tourists (CTO 2014a; UNWTO 2014a).

A.2.2 Tourist Arrivals—Market Sources

The highest growth in tourist arrivals did not come from traditional market sources. Arrivals from “Other” sources grew by 7.4%, with Guyana receiving the highest growth in tourist visits from this market (86.7%). This market was by followed the United States with 1.8% growth in arrivals to the Caribbean. The number of European tourists also increased—by 1.4%— while number of tourists from Canada remained relatively stagnant (0.9%). Finally, the number of European tourists fell by 3.7% in 2013 as a result of weak European economies (CTO 2014a). Earlier estimations from the Caribbean Tourism Organization (CTO) suggested that the highest growth in tourist arrivals to the Caribbean between 2012 and 2013 came from South America. According to those early estimates, tourist arrivals to the Caribbean from this region in 2013 grew by 13% (CTO 2014b).

However, the main source of tourist arrivals in the Caribbean region—in absolute terms—remained the United States, accounting for 43.3% of total arrivals, with 7.4 million tourists. Most American going to the region visited the Dominican Republic (1.6 million), followed

Figure A.6 Tourist Arrivals by Main Market Source
Percent of share



Source: CTO 2014a.

by Puerto Rico (2.4 million) and Jamaica (2.3 million). **Figure A.6** shows that the United States market was followed by the “Other” group, with a 22.6% share; Europe, with a 18.4% share; and Canada, sourcing 15.7% of total arrivals.

A.2.3 Tourism Receipts and Hotel Performance

As with tourist arrivals, growth in international tourism receipts in the Caribbean was relatively low, in comparison to the world’s average. Tourism receipts in the region grew by 2.1% between 2012 and 2013, which is almost comparable to the tourist arrival growth rate in the region for the same period (2.3%). As **Table A.9** shows, growth in receipts in the Caribbean was well below the world’s average (5.3%) and the Americas’ average (6.4%).

Within the Americas, growth in tourism receipts in the Caribbean was also fairly low in comparison to the other sub-regions in 2013. At the regional level, as with growth in tourist arrivals, **Table A.9** shows that the Caribbean did not perform well and ranked last among the three other sub-regions. The region was led by North America, which grew by 7.8%, followed by Central and South America (both 3.2%) and the Caribbean.

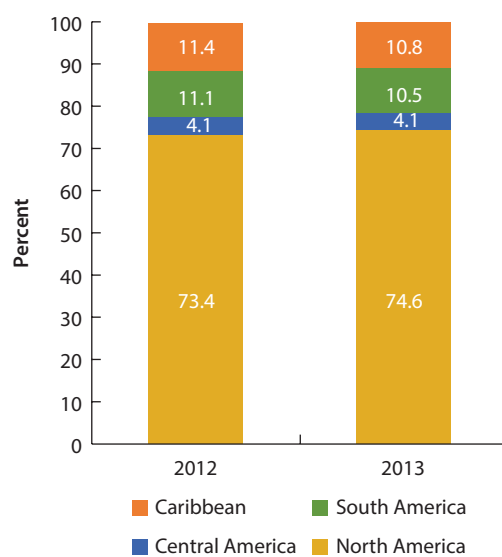
In absolute terms, the Caribbean region in 2013 collected 2.1% of global tourism receipts. At the global level, the Caribbean thus held a slightly better share of tourism receipts than of tourist arrivals (1.9%) (UNWTO 2014a).

Within the Americas, the Caribbean held a 10.8% share of tourism receipts, with a total of US\$ 24.8 billion. **Figure A.7** shows that the Caribbean and South America lost a slight

Table A.9 International Tourism Receipts, 2012–13

	2012 (billion)	2013 (billion)	13/12 (percent of change)
World	1078	1159	5.3
Europe	454.0	489.3	3.6
Asia and the Pacific	329.1	358.9	8.2
Americas	212.9	229.2	6.4
North America	156.4	171.0	7.8
Central America	8.7	9.4	3.2
South America	23.6	23.9	3.2
Caribbean	24.2	24.8	2.1
Africa	34.3	34.2	0
Middle East	47.5	47.3	–1.9

Source: UNWTO 2014a.

Figure A.7 Tourism Receipts by Sub-Region, 2012–13*Percent of share*

Source: UNWTO 2014a.

share of tourist arrivals to North America in 2013, while Central America's share remained constant. The Caribbean share of arrivals moved from 11.4% in 2012 to 10.8% in 2013, while the share of South America declined from 11.1% to 10.5%, with a total of US\$ 23.9 billion. Central America maintained its 4.1% share, with a total of US\$ 9.4 billion tourism receipts in 2013. North America held almost $\frac{3}{4}$ of the region's total tourism receipts in 2013, with a total of US\$ 171.0 billion.

In 2012, performance indicators for the hotel sector in the Caribbean demonstrated the highest growth among other sub-regions in the Americas. Table A.10 displays hotel sector performance in the main sub-regions of the Americas in 2012; measuring average occupancy rate; Average Daily Rate (ADR)³; and average Revenue per Available Room (RevPAR)⁴. In all three categories, the Caribbean outperformed all other sub-regions of the Americas. Indeed, the Caribbean scored the highest growth in all categories across the region between 2011 and 2012: the Caribbean averaged 4.5% growth in occupancy rate; 3.9% in ADR; and 11.4% in RevPAR (UNWTO 2013b). Between 2012 and 2013, the performance of these three indicators increased further: average occupancy rate increased by 1.2%, ADR by 6.2% and average RevPAR by 7.6%.

In 2012—in absolute terms—the Caribbean hotel sector performed the best among other sub-regions. Average occupancy rate in the Caribbean was the highest in the region, with 66.5%. In 2012, the Caribbean was followed by South America, with a 65.0% average occupancy rate; North America, with 61.4%; and Central America, with 57.4%. Regarding ADR, the Caribbean far surpassed the other sub-regions with US\$170 per room, versus US\$141 in South America and US\$114 in Central America. Finally, in RevPAR, the Caribbean

Table A.10 Hotel Performance in the Caribbean versus the Americas, 2011–12

Region	Occupancy (%)			Average daily rate			RevPAR		
	2012	2011	Percent change	2012	2011 US\$	Percent change	2012	2011 US\$	Percent change
America	61.5	60.1	1.5	109	105	3.8	67	63	6.3
North America	61.4	59.9	1.5	107	103	3.9	66	62	6.5
Caribbean	66.5	62.0	4.5	176	170	3.9	117	105	11.4
Central America	57.4	60.4	–3.0	114	114	0	66	69	–4.9
South America	65.0	66.7	–1.6	143	141	1.0	93	94	–1.5

Source: UNWTO 2013b.

Note: RevPAR = Revenue Per Available Room.

³ Average Daily Rate (ADR): “Room revenue divided by rooms sold, displayed as the average rental rate for a single room” (CTO 2014b).

⁴ RevPAR (Revenue per Available Room): “Room revenue divided by rooms available” (CTO 2014b).

average in 2012 was US\$117, followed by South America with \$93 and North and Central America with US\$66. In 2013, all indicators increased further, with an average occupancy rate reaching 67.1%; ADR climbing up to US\$166.55; and an average RevPAR of US\$125.5 (CTO 2014b).

A.2.4 Caribbean Tourism and Travel Competitiveness

Out of the 140 countries assessed in the latest WEF T&T report, only one Caribbean country was ranked within the top 50: Barbados, with an overall score of 4.88. The latest edition of the WEF T&T Report assessed the performance of 6 countries in the Caribbean: Puerto Rico ranked 52nd (4.36); Jamaica ranked 67th (4.08); Trinidad and Tobago ranked 83rd (3.93), the Dominica Republic was 86th (3.88) and Haiti ranked 140th (2.59) (WEF 2013).

Within the Americas, the performance of Caribbean countries was scattered. Out of the 27 countries assessed in the Report for the Americas region, Barbados ranked 3rd regionally while Haiti held the last position in the ranking. Most Caribbean countries were in the middle of the range, with Puerto Rico ranking 8th; Jamaica holding the 12th spot; Trinidad 15th and the Dominican Republic ranking 17th (WEF 2013).

A.2.5 Prospects for the Tourism Sector in 2014

Overall, it is expected that 2014 should be a better year for the Caribbean. According to the International Monetary Fund (IMF), the impetus for global growth should come largely from recovery in advanced economies. The main markets, from which tourist arrivals usually originate from, namely the United States and Europe, are expected to grow respectively by about 2.8% and 1% (IMF cited in CTO 2014b). The CTO expects that tourist arrivals in the Caribbean will increase between 2% and 3% in 2014. Cruise activity should pick up as well, as more ships have been delivered, several of which will be deployed in Caribbean waters. For 2014, cruise passenger arrivals should increase by about 3% (CTO 2014b).

A.3 OECS versus Caribbean Tourism Performance

This section examines more specifically the performance of the Organization of Eastern Caribbean States (OECS) countries (plus Barbados in some sections) in comparison to the wider Caribbean region. The first section assesses the importance of tourism for the OECS. The second section examines tourist arrival trends in the region—both in terms of relative growth and absolute share. The third section assesses the implications of these trends on the tourism competitiveness of the OECS. The fourth section examines market sources of tourism inbound in the OECS. The fifth section assesses tourism receipts and hotel performance—using hotel occupancy rate as a proxy due to the scarcity of available data. Finally, the last section focuses on prospects for the tourism sector in the OECS in 2014.

Table A.11 Travel and Tourism Sector Economic Contribution, 2013
Percent

Country	Direct contribution to GDP	Total contribution to GDP	Direct contribution to employment	Total contribution to employment	Visitor exports contribution to total exports
Anguilla	19.3	57.1	20.5	58.8	89.2
Antigua and Barbuda	16.4	62.9	16.8	57.8	76.1
Barbados	10.9	36.2	11.1	35.7	48.6
Dominica	10.0	32.0	9.1	29.1	52.0
Grenada	5.8	20.3	5.4	18.8	44.7
St. Kitts and Nevis	6.2	22.5	6.1	21.4	37.5
St. Lucia	13.2	38.8	18.6	42.1	61.3
St. Vincent and Grenadines	5.8	21.1	5.4	19.3	49.8

Source: World Travel and Tourism Council 2014.

Note: Direct contribution: tourist transportation, food and leisure industries. Indirect contribution: capital investment in travel and tourism; government spending to support tourism; and supply chain effects.

A.3.1 The Importance of Tourism for the OECS

Tourism is a primary driver of growth and an important source of employment for the OECS. Table A.11 shows that in 2013, the sector accounted for more than half of total export earnings in most countries. Anguilla received the largest share of export earnings from T&T (89.2%). In 2013, Anguilla was followed by Antigua and Barbuda (76.1%) and St. Lucia (61.3%). The sector also directly and indirectly contributed significantly to GDP and employment in most countries during that year. The sector's total contribution to GDP reached 62.9% in Antigua and Barbuda while its direct contribution to GDP reached 19.3% in Anguilla. In 2013, these two countries also received the largest total contribution of T&T to employment (57.8% and 58.8% respectively) as well as direct contribution to employment (18.0% and 23.8% respectively) across the OECS. Evidence shows that over the past two decades, the sector's contribution to GDP has increased, as traditional agricultural exports contracted with the expiration of preferential trade access to European markets.

A.3.2 Tourism Arrivals

Average tourist arrival growth in the OECS (1.0%) lagged in comparison to the overall Caribbean between 2012 and 2013. Table A.12 shows that the OECS ranked 4th out of the 6 sub-regions in the Caribbean, just before the French territories (0.3%) and US territories (-1.7%). In 2013, the leading sub-region within the Caribbean in relative growth was the

Table A.12 Tourist Arrivals to the Caribbean by Sub-Region, 2013

	2013 (million)	13/12 (percent of change)
OECS countries ^a	1.0	1.0
Other Commonwealth countries ^b	5.6	2.2
Dutch territories ^c	1.9	5.2
French territories ^d	0.5	0.3
US territories ^e	2.3	-1.7
Other Caribbean countries ^f	8.2	6.8
Total/average Caribbean	19.5	2.5

Source: CTO 2014a.

a. OECS countries: Anguilla, Antigua, Dominica, Grenada, Montserrat, St. Kitts, St. Lucia, St. Vincent.

b. Other Commonwealth countries: Jamaica, BVI, Cayman Islands, the Bahamas, Barbados, Bermuda, Guyana, Belize, Turks and Caicos.

c. Dutch territories: Aruba, Curacao, Sint Maarten.

d. French territories: Martinique.

e. U.S. territories: Puerto Rico, USVI.

f. Other Caribbean: Cuba, Dominican Republic, Haiti, Suriname.

“Other Caribbean” region—which includes large destinations such as Cuba, Dominican Republic, Haiti and Suriname—reaching 6.8% growth in arrivals, adding up to about 8.2 million arrivals.

At the country level, growth in tourist arrivals was led by Anguilla, with a 6.8% increase between 2012 and 2013. **Table A.13** highlights that within the OECS (plus Barbados), 4 countries demonstrated growth in tourist arrivals in 2013: Anguilla’s performance was followed by St. Lucia, which progressed by 3.9%; St. Kitts and Nevis (3.2%) and Grenada (0.9%). However, tourist arrivals declined in the remaining five countries: by 5.2% in Barbados; by 3.5% in St. Vincent and the Grenadines; by 1.5% in Montserrat; by 1.2% in Antigua and Barbuda; and by 0.9% in Dominica.

In absolute terms, the OECS maintained a low share of Caribbean tourist arrivals in 2013. **Figure A.8** shows that in 2013, the OECS accounted for only 5.2% of total Caribbean tourists—the same share it had in 2012—with a total of approximately 1.0 million arrivals. The OECS countries ranked just above the French Caribbean, which accounted for the lowest share in the region (2.5%). The “Other Caribbean” group received the largest share of total arrivals (42.2%) in 2013, reaching up 8.2 million arrivals. In the same year, US territories held 11.8% of total arrivals—with 3.9 million tourists—while the Dutch Caribbean held 9.7% and the “Other Commonwealth” countries 28.6%, collecting 5.6 million tourist arrivals.

Within the OECS (plus Barbados), Barbados received the largest share of tourist arrivals in 2013, with 508.5 thousand arrivals. **Table A.13** shows that Barbados was followed by

Table A.13 Tourist Arrivals to the OECS (plus Barbados), 2013

	<i>Period</i>	<i>2013 (thousand)</i>	<i>13/12 (percent of change)</i>
Anguilla	Jan–Dec	69.1	6.8
Antigua and Barbuda ^a	Jan–Dec	243.9	–1.2
Barbados ^b	Jan–Dec	508.5	–5.2
Dominica ^b	Jan–Dec	78.3	–0.9
Grenada	Jan–Dec	116.5	0.9
Montserrat	Jan–Dec	7.2	–1.5
St. Kitts and Nevis ^c	Jan–Dec	101.0	3.2
St. Lucia	Jan–Dec	318.6	3.9
St. Vincent and the Grenadines	Jan–Dec	71.7	–3.5

Source: CTO 2014a.

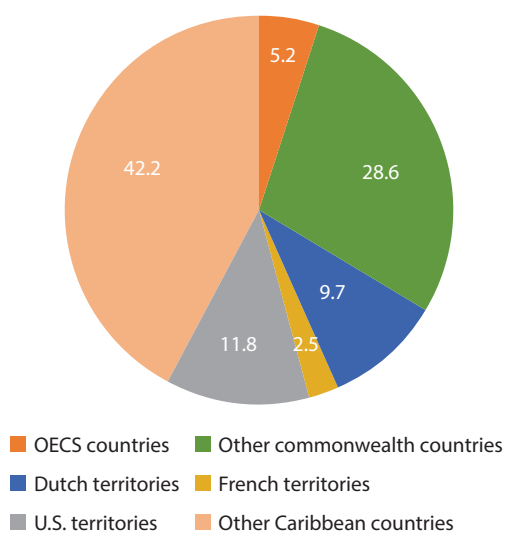
Note: Figures are subject to revision by reporting countries.

a. Non-Resident Air Arrivals.

b. Preliminary figures.

c. Excludes data from Vance M. Amory Int'l Airport in Nevis.

Figure A.8 Tourist Arrivals by Sub-Region
Percent of total share



Source: CTO 2014a.

St. Lucia, which received 318.6 thousand tourists in 2013; and Antigua and Barbuda, with 243.1 thousand tourists. All remaining countries received flows in arrivals ranging from 116.5 thousand arrivals in Grenada, to 7.2 thousand arrivals in Montserrat.

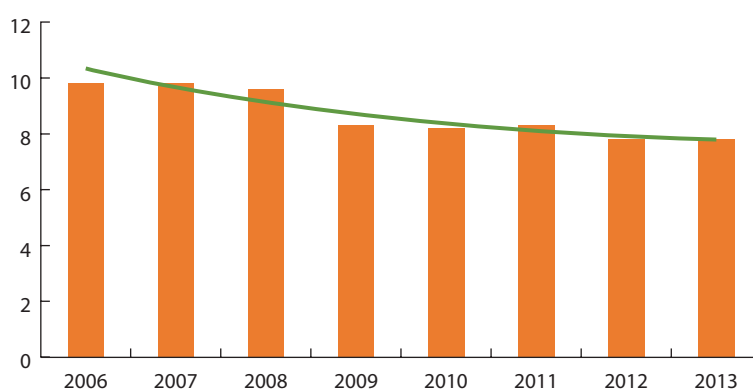
The modest performance of the OECS tourism sector 2013 was matched by difficulties to fully recover from the financial crisis. Most OECS countries have strong service-based economies and the financial crisis has been undermining their growth performance and exposing balance sheet vulnerabilities built up over many years. In contrast, commodities exporters in the Caribbean, such as, Belize, Guyana, Suriname, and Trinidad and Tobago which together produce oil/gas, minerals, and agricultural goods benefited from high commodity prices and demonstrated better resilience and recovery from the crisis (IMF 2013).

The tourism sector in the OECS (plus Barbados) was significantly affected by the Financial Crisis and has had difficulties recovering. **Figure A.9** shows that the OECS's (plus Barbados) share of Caribbean tourists has progressively declined over time between its 2006 pre-crisis level and 2013. The OECS (plus Barbados) moved from a 9.8% share in 2006 to a 7.8% share in 2013. This trend suggests that other sub-regional groups within the Caribbean have been more resilient and performed better both during and after the crisis (CTO 2007, 2009, 2010a, 2010b, 2012, 2013a, 2013b, 2014a).

Figure A.10 shows that growth in tourist arrivals in the OECS (plus Barbados) was also strongly affected by the crisis and has had difficulties recovering. Between 2006 and 2009, growth in tourist arrivals moved from 4.8% to -10.9%. Since then, growth progressively recovered, reaching 3.5% in 2012—however still under its 2006 pre-crisis growth level of 3.7%. Between 2012 and 2013, growth dropped again to 0.3%. In comparison, the

Figure A.9 OECS Share (plus Barbados) of Arrivals in the Caribbean, 2006–13

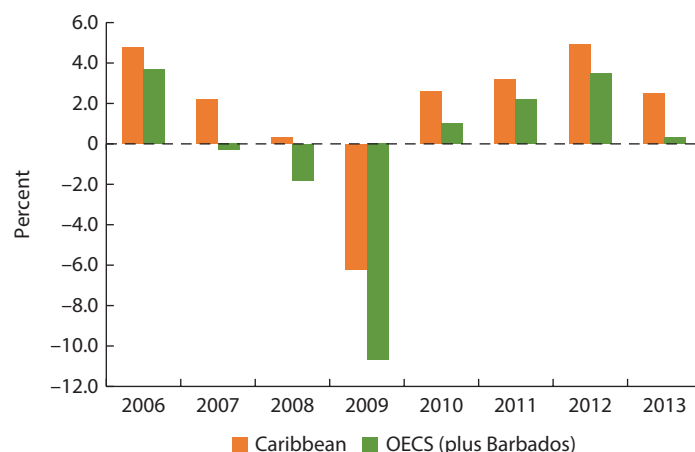
Percent of share



Sources: CTO, various sources; CTO 2014a, 2013a, 2013b, 2012, 2010a, 2010b, 2009, 2007.

Note: Data for Turks & Caicos only available in 2013; Data for St. Kitts only available for 2013, 2008, 2007; Data for Haiti only available for 2013 and 2006.

**Figure A.10 OECS (plus Barbados) versus the Caribbean,
Average Tourist Arrival Growth, 2006–13**
Percent of change



Sources: CTO, various sources; CTO 2014a, 2013a, 2013b, 2012, 2010a, 2010b, 2009, 2007.

overall Caribbean showed better resilience and recovery from the crisis. Between 2006 and 2013, the OECS (plus Barbados) growth performance was always below that of the Caribbean, but the growth gap widened for most years after 2006. In 2006, the growth difference between the overall Caribbean and the OECS (plus Barbados) was fairly small, with 1.1%, but reached 4.5% in 2009 (-6.2% in the Caribbean and -10.7% in the OECS plus Barbados). The 2012 growth rate in tourist arrivals in the Caribbean was back to its pre-crisis level, even slightly outpacing it, reaching up 4.9% (CTO 2007, 2009, 2010a, 2010b, 2012, 2013a, 2013b, 2014a).

A.3.3 Implications for OECS Tourism Competitiveness

As a result of these trends, the OECS region is becoming increasingly less competitive amidst other destinations in the world. This point was recently emphasized by Ms. Virginia Paul, head of Trade Policy Unit/Officer in Charge Economic Affairs Division in the OECS Secretariat, during her remarks at the opening of the 12th OECS Tourism Ministers meeting in Dominica on Thursday April 24 2014. She stressed that the OECS has been losing “its already undersized share of the Global tourism market.” Ms. Paul pointed out that statistics obtained from the Eastern Caribbean Central Bank (ECCB) and the Eastern Caribbean Central Union (ECCU) evidenced that the share of world tourist arrivals in the Caribbean has been on a general downward trend over the last decade. She stated that: “In 2000, the ECCU share of global tourist arrivals was 0.132% [...] and last year, it reached a low record of 0.092%” (*Caribbean Journal* 2014).

In 2013, within the OECS (plus Barbados) group, the strong tourism performance of Barbados—in absolute terms—suggests that the tourism competitiveness of the other countries for that year may have been lower. The latest edition of the WEF T&T report within that group only includes Barbados, which scored 4.88. However, in light of the tourism assessment performed in the sections above, we can assume that if the remaining countries were included in the report, they would probably have fallen below Barbados (WEF 2013).

A.3.4 Tourist Arrivals—Market Sources

In contrast to the Caribbean, the highest growth in tourist arrivals in the OECS (plus Barbados), between 2012 and 2013, came from Canada. **Table A.14** shows that the three countries within the OECS (plus Barbados) that received the highest growth in tourist visits from this market were: Grenada (27.0%); Antigua and Barbuda (25.9%) and Anguilla (8.6%). This market source was followed by the US, with 0.9% growth in tourist arrivals in the OECS (plus Barbados). Grenada demonstrated the highest growth in arrivals from this market with a 16.1% increase; followed by St. Lucia, with 11.5%; and Anguilla with 8.9%. In contrast, arrivals to the OECS (plus Barbados) from Europe retracted by 1.4%, especially in Grenada (–16.1%), St. Lucia and Montserrat (both –5.2). Arrivals from the “Other” group also decreased in 2013 (–0.7%); with –9.8% in Barbados; –8.6% in Antigua and Barbuda; and –4% in St. Vincent and the Grenadines.

However, in absolute terms—as with the Caribbean—the US maintained the largest share of tourist arrivals in the OECS (plus Barbados), with 34.3%. **Table A.14** shows that St. Lucia (128.3 thousand), Barbados (120.6 thousand) and Antigua and Barbuda (88.8 thousand) received the most tourists from this market. This market was closely followed by Europe (30.8% share); with Barbados (209.8 thousand), St. Lucia and Antigua and Barbuda (both 88.5 thousand) receiving the most tourists in 2013. With 110.8 thousand tourists, Barbados also accounted for the largest share of arrivals from the “Other” market category, which held 24.1% of total arrivals in the OECS (plus Barbados). Finally, Canada sourced 10.8% of tourists to the OECS (plus Barbados); with Barbados (67.3 thousand), Antigua and Barbuda (30.4 thousand) and Grenada (9.3 thousand) receiving the most tourist arrivals from this market.

In 2013, the OECS (plus Barbados) demonstrated a slightly different market structure than the overall Caribbean. For instance, **Figure A.11** shows that European arrivals account for 30.8% of 2013 arrivals in the OECS (plus Barbados), compared to 18.4% for the wider Caribbean. This may have resulted in a longer average stay, as tourists from the United States typically stay for much shorter periods than do Europeans.

Regarding intra-Caribbean tourism, the OECS demonstrated the largest decline in tourist arrival flows amongst all sub-regions within the Caribbean region. Estimates from CTO in 2013 reveal that 2.1% more Caribbean residents visited neighboring destinations than in 2012. However, **Table A.15** shows that the OECS is the only region where intra-regional arrivals declined in 2013, with a reduction of 3.4%. The “Other Caribbean” region dominated growth in intra-regional tourist arrivals, with a rise of 3.7% between 2012 and 2013, reaching a total of 973.7 thousand arrivals.

Table A.14 Tourist Arrivals to the OECS (plus Barbados) by Main Market

	<i>Period</i>	<i>United States</i>		<i>Canada</i>		<i>Europe</i>		<i>Other</i>	
		<i>2013 (thousand)</i>	<i>13/12 (percent of change)</i>	<i>2013 (thousand)</i>	<i>13/12 (percent of change)</i>	<i>2013 (thousand)</i>	<i>13/12 (percent of change)</i>	<i>2013 (thousand)</i>	<i>13/12 (percent of change)</i>
Anguilla	Jan–Dec	45.5	8.9	3.6	8.6	7.4	2.9	12.5	1.3
Antigua and Barbuda ^a	Jan–Dec	88.8	–4.7	30.4	25.9	88.5	–1.6	36.2	–8.6
Barbados ^b	Jan–Dec	120.6	–7.8	67.3	–6.6	209.8	–0.4	110.8	–9.8
Dominica ^b	Jan–Dec	18.0	–5.0	3.0	–1.5	13.6	5.7	43.7	–1.0
Grenada	Jan–Dec	30.6	16.1	9.3	27.0	27.1	–16.1	49.5	0.1
Montserrat	Jan–Dec	1.8	–8.9	0.5	2.2	2.2	–5.2	2.7	7.0
St. Kitts and Nevis ^c	Jan–Dec	65.6	3.9	6.7	–0.5	9.8	7.6	19.0	0
St. Lucia	Jan–Dec	128.3	11.5	36.0	–4.6	88.5	–5.2	65.8	8.5
St. Vincent and the Grenadines	Jan–Dec	20.1	–6.3	7.1	–3.7	20.4	0	24.1	–4.0
Total/average OECS plus Barbados	Jan–Dec	519.3	0.9	163.9	5.2	467.2	–1.4	364.3	–0.7

Source: CTO 2014a.

a. Non–Resident Air Arrivals.

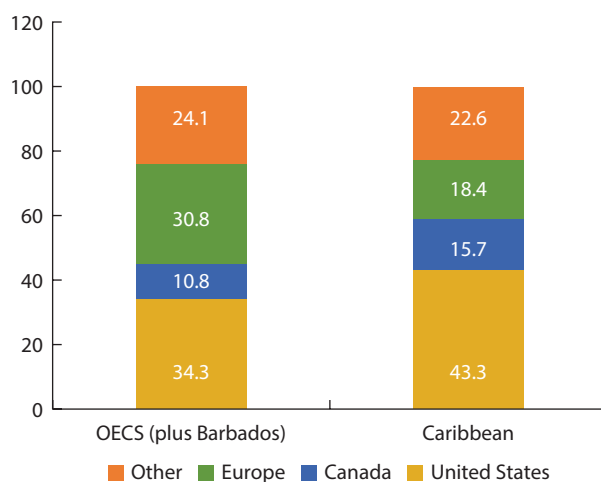
b. Preliminary figures.

c. Excludes data from Vance M. Amory Int'l Airport in Nevis.

Figure A.11 OECS (plus Barbados) versus Caribbean, Tourist Arrivals by Main Market

Source, 2013

Percent of share



Source: CTO 2014a.

Table A.15 Intra-Caribbean Arrivals by Sub-Region, 2012–13

	2012 (thousand)	2013 ^e (thousand)	13/12 (percent of change)
Commonwealth countries ^a	624.3	621.5	−0.5
OECS countries ^b	283.6	273.9	−3.4
Other Commonwealth ^c	340.6	347.6	2.1
Other Caribbean ^d	938.5	973.7	3.7
Total Caribbean	1,562.8	1,595.2	2.1

Source: CTO 2014b.

a. Commonwealth countries: OECS countries + Other Commonwealth countries.

b. OECS countries: Anguilla, Antigua, Dominica, Grenada, Montserrat, St. Kitts, St. Lucia, St. Vincent.

c. Other Commonwealth countries: the Bahamas, Barbados, Belize, Bermuda, British Virgin Is., Cayman Islands, Guyana, Jamaica, Trinidad and Tobago, Turks & Caicos Islands.

d. Other Caribbean countries: Cancun, Cozumel, Cuba, Dom Republic, Haiti, Suriname.

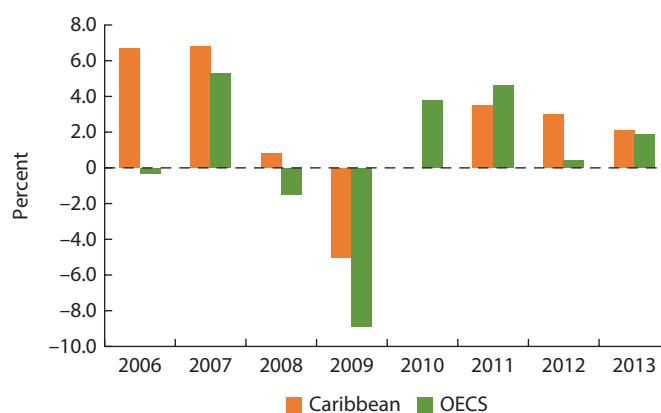
e. estimate.

In absolute terms, the OECS received the smallest share of intra-regional travel within the Caribbean, with a total of 273.9 thousand arrivals. **Table A.15** shows that approximately 1.6 thousand regional tourists travelled within the Caribbean region in 2013, and the highest share of this market was received by the “Other Caribbean” region, with a total of 973.7 thousand arrivals. This sub-region region was followed by the “Other Commonwealth” region, which accounted for 347.6 thousand visits.

A.3.5 Tourism Receipts⁵ and Hotel Performance

Between 2006 and 2013, growth in visitor expenditures in the OECS was severely affected by the Financial Crisis. **Figure A.12** shows that in 2007; visitor expenditures in the OECS grew by 5.3% but fell down to -8.9% in 2009. In 2011, growth recovered to 4.6%, but decreased again to 1.9% in 2013. The OECS growth in tourism receipts over that period was always below that of the Caribbean, except for 2010 and 2011 (ECCB 2014; UNWTO 2009, 2010, 2013a, 2014a).

Figure A.12 OECS versus the Caribbean, Tourism Receipt Growth, 2006–13
Percent of change



Sources: UNWTO and ECCB, various sources (ECCB 2014; UNWTO 2009, 2010, 2013a, 2014a).

Note: Data from different organizations used for each group: UNWTO for the Caribbean and ECCB for the OECS. Figure aims to give a general idea of the trends but comparisons should be used with caution.

⁵ In this section, the comparisons conducted in tourism receipts between the OECS and the Caribbean are based on data from two different organizations (UNWTO for the Caribbean and ECCB for the OECS) and should thus be used with caution. The goal is to give a general idea of the trends but data, definitions and measurement between these two organizations may differ.

At the country level, Anguilla received the highest growth in visitor expenditures among the OECS countries. Between 2012 and 2013, Anguilla grew by 8.0% and was followed closely by Dominica, with a 7.7% increase; and St. Kitts and Nevis, with a 6.4% increase (ECCB 2014).

As with tourist arrivals, between 2006 and 2012, the OECS share of total tourism receipts in the Caribbean decreased almost consistently over time. **Figure A.13** shows that between 2006 and 2012, the OECS share declined from 5.2% to 4.5%. However, in both 2011 and 2013, the OECS share increased from the previous year (ECCB, 2014; UNWTO, 2009, 2010, 2013a, 2014a).

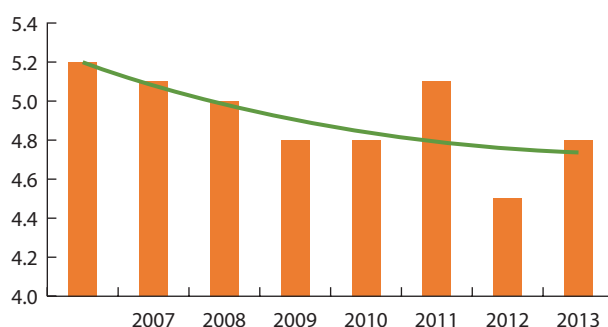
At the country level, St. Lucia collected the highest share of tourism receipts across the OECS countries. In 2013, St. Lucia received US\$ 353.9 million in visitor expenditures; followed by Antigua and Barbuda, with US\$ 307.7 million; and Anguilla, with US\$ 121.7 million (ECCB 2014).

Unfortunately, data collection on the performance of the OECS hotel sector is scanty at best, and sometimes non-existent. There are no legal requirements for hotels to send data to their respective Tourist Boards, so most do not. The latest official data from CTO on room occupancy rates at the country level dates from 2010.

Based on available data for 2010, the average room occupancy rate in the OECS is below that of the Caribbean for the same year. **Table A.16** shows that the room occupancy rates in the OECS in 2010 approximately averaged 58.1%, while the overall Caribbean averaged 61.1% (CTO 2014b).

At the country level, Grenada received the highest room occupancy rate in 2013. **Table A.16** shows that Grenada was followed by Barbados (67.1%); and St. Lucia (58.0%).

Figure A.13 OECS Share of Receipts in the Caribbean, 2006–13
Percent of share



Sources: UNWTO and ECCB various sources (ECCB 2014; UNWTO, 2009, 2010, 2013a, 2014a).

Note: Data from different organizations used for each group: UNWTO for the Caribbean and ECCB for the OECS. Figure aims to give a general idea of the trends but comparisons should be used with caution.

Table A.16 Room Occupancy Rates in the OECS (plus Barbados), 2010

<i>Country</i>	<i>Occupancy rates (%)</i>
Anguilla	41.9
Antigua	55.7
Barbados	67.1
Dominica	—
Grenada	71.0
Montserrat	—
St. Kitts	—
St. Lucia	58.0
St. Vincent and the Grenadines	55.0
OECS (plus Barbados) average	58.1

Source: CTO 2010c.

Note: St. Vincent occupancy rate estimated by SVG Hotel Association.

— = not available.

A.3.6 Prospects for the Tourism Sector in 2014

Positive prospects for the US and European economies in 2014 should be beneficial for the OECS. The IMF expects that the impetus for global growth should come largely from recovery in advanced economies. The main markets for the OECS, from which tourist arrivals usually originate from, namely the United States and Europe, are expected to grow respectively by about 2.8% and 1% in 2014 (IMF cited in CTO 2014b). The CTO expects that tourist arrivals in the Caribbean will increase between 2% and 3% in 2014 (CTO 2014b).

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APPENDIX B

Existing OECS Ferry Operations

There are 11 ferry companies operating within the Eastern Caribbean; with 21 vessels and a total seating capacity of 5,853 passengers. Only two ferry services carry vehicles, both on domestic routes. Only two ferry companies operate internationally: the Martinique-based L'Express des Iles and the much smaller Twin Island Ferry Services. Existing ferry services are:

1. *St. Kitts and Nevis Ferries*

Four ferries link the islands of St. Kitts and Nevis, a distance of 10 miles: The Caribe Breeze, Caribe Queen, Caribe Surf, and Sea Bridge. These are older, privately owned vessels that carry the vast bulk of people between the twin-island federation.

2. *The Antigua to Barbuda Ferry*

The Barbuda Express is a small wave-piercing ferry that links both islands.

3. *Twin Islands Ferry Service Ltd (TIFS) Antigua and Montserrat*

This company commenced regular ferry services from Antigua to Montserrat in 2009. The fares for the ferry service are approximately US\$47 for an adult one-way-trip and US\$93 for an adult return trip.

4. *L'Express des Iles*

The only sustained cross-border ferry service in the Eastern Caribbean, L'Express des Iles has been providing a regularly scheduled service between Guadeloupe, Dominica, Martinique, and St. Lucia for the past 27 years. The company operates three high-speed ferries:

- Gold Express and Silver Express: 360 passengers, no vehicles. Built by Austral in Australia; eight years old. These vessels operate on the routes to Dominica and St. Lucia.
- Liberte: 430 passengers, plus vehicles. Built by Austral, three years old. This boat plies the routes between the French territories.

Table B.1 St. Lucian Ferry Traffic to Martinique and Guadeloupe, 2007–13

Year	Passengers			
	In	Out	Total	Change (%)
2007	36,327	35,870	72,197	–9
2008	33,139	32,909	66,048	–9
2009	30,043	29,847	59,890	–9
2010	26,258	27,236	53,494	–11
2011	25,623	25,661	51,284	–4
2012	29,292	28,533	57,825	13
2013	26,524	26,382	52,906	–9

Source: St. Lucia Air & Sea Ports Authority (SLASPA).

On the HSC (high speed craft) Gold Express, the standard tariff is €75 for one- or two-segment journeys. The company reports that its ferry operations are hampered by complex, expensive and time-consuming customs and Immigration procedures at each port of entry. In addition, there are usually not enough immigration officers on duty to handle a sudden disembarkation of over 100 passengers. The company carries passengers and only the cargo passengers bring with them; there is no dedicated cargo service. This is in keeping with the company's business plan—to concentrate on passenger traffic between known destinations.

L'Express des Iles has experienced contrasting fortunes with regard to its international routes from the French territories of Martinique and Guadeloupe. As shown in Table T, Dominica has benefitted from a steady increase in ferry traffic; from residents of Martinique and Guadeloupe and from visiting French tourists on multi-destination holidays. However, ferry traffic between Martinique and St. Lucia has been drastically curtailed due to travel restrictions placed on Organization of Eastern Caribbean States (OECS) nationals by immigration authorities in the French territories, including proof of funds, medical insurance, and place of abode.¹

5. St. Vincent and the Grenadines

Several ferries operate between the mainland St. Vincent and the Grenadine Islands. These include Admiralty Transport,² Bequia Express,³ Mustique Ferry, and Jaden Lines⁴—all

¹ Interview with Cox & Co, agents for L'Express des Iles in St. Lucia.

² Admiralty Transport Company website, available at: <http://admiraltytransport.com/tag/st-vincent/>.

³ Bequia Express Company website, available at: <http://www.bequiaexpress.com/>.

⁴ Jade Sun Fast Ferry website, available at: <http://jadeninc.com/ferry/about/>.

provide ferry services of varying types in the island chain. The HSC Jaden Sun operates a short duration service between St. Vincent, Bequia, and Union Island, the southernmost in the St. Vincent and the Grenadines island chain. Other ferries operate the same routes at slower speeds, with longer transit times.

6. Osprey Lines Grenada⁵

This ferry connects Grenada with its sister isles of Carriacou and Petite Martinique. Osprey does not operate a regular service to the neighboring Union Island because of customs and immigration hassles and expense. Their principal vessel, Osprey Express, carries 220 passengers at a maximum speed 30 knots, although it travels at 20 knots to conserve fuel. The company reports that it had to pay import duties on their vessels; they received no concessions at all from the government.

Currently, Osprey Lines carries about 65,000 passengers per year, down from 100,000 a few years ago.⁶ Standard fare is US\$31 from Grenada to Carriacou; US\$20 from Carriacou to Union Island (groups only). Generally, the company carries about 10% tourists—although this has declined with the falling trend of overall tourist arrivals. The vessel carries small amounts of cargo, mainly accompanying passengers' plus vegetables for the government marketing board to Carriacou.

7. Trinidad–Tobago Ferry⁷

This government-owned company operates a Ro-Ro (Roll-on Roll-off) ferry service between Port of Spain and Tobago. Ridership has grown from 100,000 to over 1 million passengers in five years (Footprints Advisors 2011). In 2007, the T&T Spirit was commissioned into service. This vessel is 97.2 meters in length with speed of 30–40 knots. It can accommodate 765 passengers and 200 cars. On board facilities include a cafeteria, bar, and VIP lounge.

Built in 1997, the T&T Express was purchased by the Government of Trinidad and Tobago and commissioned into service in 2006. It is 91.3 meters in length with a speed of 38–40 knots, enabling the vessel to complete the journey between the two islands in 2½ hours. It can accommodate some 840 passengers and 200 cars/vans. Facilities include a café/restaurant area and a bar as well as a ramp for the disabled.

8. Port of Spain to San Fernando Water Taxi—Trinidad⁸

In 2010, the Government of Trinidad and Tobago bought four ferries—Paria Bullet, Calypso Sprinter, Trini Flash, and Carnival Runner. All were made by Austral in Australia and carry

⁵ Osprey Lines website, available at: <http://www.ospreylines.com/>.

⁶ Interview with Glen Clement, owner.

⁷ Trinidad and Tobago Inter-Island Ferry Service website, available at: <https://ttitferry.com>.

⁸ Trinidad and Tobago Water Taxi website, available at: <http://www.tntisland.com/watertaxis.html>.

405 passengers for a highly subsidized service linking the two main cities in Trinidad. Fares are US\$2.42 each way.

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APPENDIX C

Questionnaires to Tour Operators in Europe and Travel Agents in the Region

C.1 Tour Operators Survey

Questionnaires were sent to 114 leading tour operators in the UK, Europe, and the US (via Survey Monkey), seeking their informed opinions on the desirability of an Eastern Caribbean ferry service. All questions were backed up by quantifiable estimates of demand, where applicable. In total, 20 responses were received, a response rate of 17.5%. These are the 17 identified tour operators who participated in the survey (three respondents filled in the survey “incognito”):

1. Abercrombie & Kent
2. Bailey Robinson
3. Carib Tours
4. Carolyn Lodge Travel
5. CHIC Locations
6. Elegant Resorts
7. Go Fishing Worldwide
8. Golden Holidays
9. Individual Holidays
10. ITC UK
11. Just Grenada
12. Kenwood Travel
13. Lusso Travel
14. Mot Mot Travel
15. Original Travel
16. Quintessentially Travel
17. Stella Travel Services

Even allowing for a certain amount of hubris; this still indicates a high level of interest among tour operators for a regional ferry service. Some of the written comments are also instructive:

- “We specialise in multi-island holidays and think this would be a great idea. Our clients often come to us for guidance, so if there is a good, reliable service available then I’m sure we would use it. In fact, we have been asked about ferry services between the islands many times.”
- “From St. Lucia, this would be very popular to link to St. Vincent and the Grenadines and Martinique in particular. Services would need to be timely, regular, affordable, and flexible.”
- “Fully endorse this idea. I use the ferry service from St. Lucia to Dominica frequently, works very well and is reasonably comfortable but better option than Leeward Island Air Transport (LIAT) in travel times. Downside is the tedious and uncomfortable customs and immigration on both islands, so these would need to be upgraded as currently off-putting. The service is used by many of the island traders, so has atmosphere of its own, but more tourists also using it now” (*David Kevan, CHIC Locations*).
- “There is a big demand for island-hopping from our clients. We use SVG wherever we can—we avoid LIAT whenever we can—and we use ferries sometimes. Very interested to hear about your plans” (*Gerry Copsey, Just Grenada*).
- “The current trend is definitely island hopping and as a tour operator who knows the region well, we really encourage this. The flights can sometimes make it difficult, so I really think a ferry service would be excellent. I think people would find it much more convenient and enjoyable than constantly going back and forth to the airport and having to put up with constant delays on the flights.”
- “This is a fantastic idea and one that we would completely endorse. It would make the world of difference to our business as well as being beneficial to the islands and the environment. Please make this happen, and if there is anything that we can do to help, please just ask!”

Table C.1 Tour Operator Survey

Question no.	Responses	Percent
1	On average, how many other Caribbean destinations have your clients been to before?	
	None, this is their first visit to the Caribbean	5.3
	(a) 1 or 2 other Caribbean islands	57.9
	(b) 3 islands or more	36.8

Table C.1 Tour Operator Survey *(continued)*

Question no.	Responses	Percent
2	How many of your clients make their own flight arrangements (for example, using air miles), instead of booking an inclusive hotel-plus-airline package?	
	(a) Less than 10 percent	55.0
	(b) Between 10 and 25 percent	25.0
	(c) Above 25 percent	20.0
3	How many of your clients express an interest in visiting more than one Caribbean island on the same holiday?	
	(a) It never happens	0.0
	(b) Rarely (maybe 5–10 percent)	10.0
	(c) Sometimes (10–20 percent)	35.0
	(d) Often (above 20 percent)	55.0
4	Air fares on the regional airline LIAT are expensive, averaging around US\$400 per trip to neighbouring islands. How much of a deterrent is this to your clients who wish to go island-hopping?	
	(a) None — If my clients want to go island-hopping they go, regardless of the cost	15.8
	(b) Somewhat — Several of my clients decide it is too expensive to go island-hopping	57.9
	(c) Many — Most people decide it isn't worth it	26.3
5	If there were a modern, safe and inexpensive ferry service serving the Eastern Caribbean, how many of your clients do you think would be interested?	
	(a) Hardly any (0–5 percent)	5.0
	(b) A few (5–10 percent)	20.0
	(c) Some (above 10 percent)	75.0
6	If there was a fast ferry service, approximately how many clients per month during the high season (December to April) do you think would be interested in booking multi-destination packages using the ferry?	
	(a) None	5.0
	(b) Less than 20 clients per month	50.0
	(c) Between 20 and 50 clients per month	40.0
	(d) More than 50 clients per month	5.0
7	Do you think a regional fast ferry service could increase the number of tourists visiting the Eastern Caribbean?	
	(a) Not at all	0.0
	(b) Maybe a little bit (less than 5 percent)	25.0
	(c) Somewhat (more than 5 percent)	70.0

table continues next page

Table C.1 Tour Operator Survey (continued)

Question no.	Responses	Percent
8	Please feel free to make additional comments on the topics of island-hopping and a fast ferry service for the Eastern Caribbean:	
	It very much depends on how long the fast ferries will take and if you/they can make sure they have a reputation for reliability, decent service and above all safety.	
	I think this is an excellent idea and wish you every success with your venture.	
	We specialise in multi-island holidays and think this would be a great idea. Our clients often come to us for guidance so if there is a good, reliable service available then I'm sure we would use it. In fact we have been asked about ferry services between the islands many times.	
	We only deal with luxury clients so cost is not a issue, convenience, speed and ease are. Many will go on shared or private charters due to ease rather than cost. The ferry service may prove more popular with a more mass market clientele.	
	Our market is luxury and therefore our answers relate purely to that sector, which is perhaps not relevant to the question.	
	From St. Lucia this would be very popular to link to St. Vincent and the Grenadines and Martinique in particular. Services would need to be timely, regular, affordable and flexible.	
	Inter island travel is certainly dauntingly expensive. Yes it is one country but the Bahamas has fast and efficient inter island ferry service covering the same sorts of distances as you would find in the Windward Islands. It would be nice. GHS	
	Fully endorse this idea. I use the Ferry service from St. Lucia to Dominica frequently, work very well and is reasonably comfortable, but better option than LIAT in travel times. Downside is the tedious and uncomfortable customs and immigration on both islands so these would need to be upgraded as currently off-putting. The service is used by many of the island traders, so has an atmosphere of its own, but more tourists also using now. David Kevan - Chic Locations.	
	There is a big demand for island-hopping from our clients. We use SVG wherever we can - we avoid LIAT whenever we can - and we use ferries sometimes. Very interested to hear about your plans Gerry Copsey Just Grenada group the biggest issue we face is in LIAT... poor service and reliability gives neither customer or Tour Operator the confidence to arrange more interesting itineraries. I have felt for sometime a good regular and reliable inter island ferry service would enhance our program dramatically and give a very interesting dynamic to the destination. Good luck and please keep me informed!	
	The current trend is definitely island hopping and as a tour operator who knows the region well, we really encourage this. The flights can sometimes make it difficult, so i really think a ferry service would be excellent. i think people would find it much more convenient and enjoyable than constantly going back and forward to the airport and having to put up with constant delays on the flights.	
	This is a fantastic idea and one that we would completely endorse. It would make the world of difference to our business as well as being beneficial to the islands and the environment. Please make this happen and if there is anything that we can do to help, please just ask!	

Source: <https://www.surveymonkey.com/results/SM-37KQYDG/browse/>.

C.2 Travel Agents Survey

Survey questionnaires were sent to 64 leading travel agencies in the Eastern Caribbean region; non-delivery notifications reduced it to 53. In total, 17 responses were received, which equates to a creditable 32% response rate. These are the 10 of the travel agents who were identified (seven respondents filled in the survey “incognito”):

1. Windsor Travel, Barbados
2. New Era Travel, Trinidad
3. Travel and Tours, St. Vincent
4. Hibiscus Travel, St. Lucia
5. Trade Winds Travel, Trinidad
6. Universal Travel, St. Vincent
7. Cruise World, Barbados
8. Joy’s Travel, Grenada
9. Cox & Co, St. Lucia
10. Whitchurch & Co Travel, Dominica

Results of the travel agent survey indicate a high degree of interest in a regional ferry service among travel agents and their clients.

Table C.2 Eastern Caribbean Travel Agent Survey

Question no.	Responses	Percent
1	On average, how many trips to other Eastern Caribbean destinations do you book per month?	
	(a) Less than 20	23.5
	(b) 20–50	23.5
	(c) More than 50	52.9
2	What are the most common reasons for travel?	
	(a) Business	29.4
	(b) Holidays, visiting friends and relatives	58.8
	(c) Attending events: cricket, carnival, music festivals, etc.	5.9
	(d) Other (visa applications, group travel, etc.)	5.9

table continues next page

Table C.2 Eastern Caribbean Travel Agent Survey (*continued*)

Question no.	Responses	Percent
3	How many of your clients ask about travelling by ferry?	
	(a) It never happens	6.3
	(b) Rarely (maybe 5–10 percent)	12.5
	(c) Sometimes (10–20 percent)	50.0
	(d) Often (above 20 percent)	31.3
4	Air fares to regional destinations are expensive. If there were a modern, safe ferry service serving the Eastern Caribbean, charging fares that were about half of the applicable air fares; how many clients do you think would be interested in travelling by ferry?	
	(a) Hardly any (0–5 per month)	6.3
	(b) A few (5–20 per month)	25.0
	(c) Some (above 20 per month)	68.8
5	Do you regional think a regional ferry service could increase the number of foreign tourists visiting the Eastern Caribbean by making the region an attractive destination for multi-destination travel and island-hopping?	
	(a) Not at all	0.0
	(b) Maybe a bit (less than 10 percent)	23.5
	(c) Somewhat (more than 10 percent)	76.5
6	Please feel free to make additional comments on the topics of island-hopping and a ferry service for the Eastern Caribbean:	
	It would have to be efficient, fast, safe and of a good standard especially if catering for tourists and Caribbean vacation travellers.	
	long overdue	
	I think that although persons deire a less costly means of travelling through the caribbean. Getting to the destinitation in quick time is going to be a factor.	
	good idea.....	
	In the TnT market we sell the domestic ferry tickets and almost every long weekend the sailings go very quickly. apart from that any normal weekend the sailings are full. To have a ferry service to other Caribbean islands would very much cater to that market and offer new alternatives for them	
	This would be a welcomed by locals also	
	It would have to be efficient, fast, safe and of a good standard especially if catering for tourists and Caribbean vacation travellers.	
	long overdue	
	I think that although persons desire a less costly means of travelling through the caribbean. Getting to the destinitation in quick time is going to be a factor.	
	good idea.....	

APPENDIX D

Schooners Running in the OECS

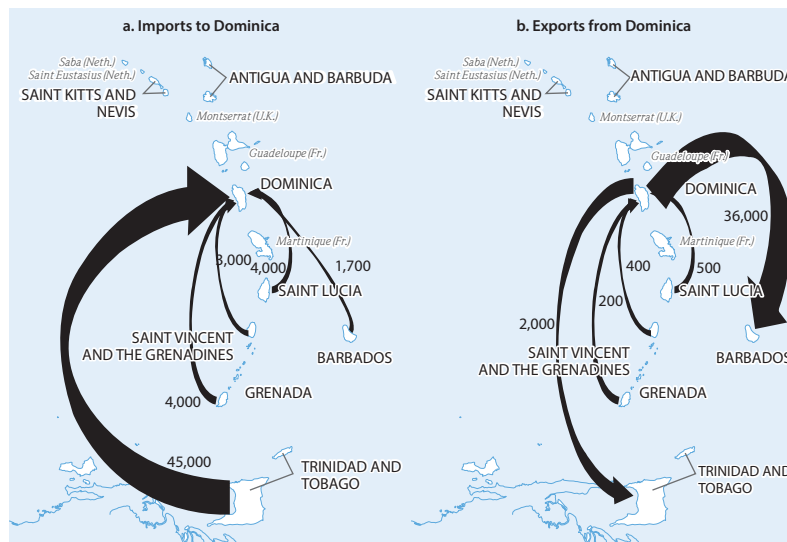
Almost all of the inter-island schooners currently operating in the Eastern Caribbean are flagged in St. Vincent. Many of them are owned by Vincentians (Carriacou and Petite Martinique, the Grenadian territories within the Grenadines, also have active shipping and trading sectors). Ships operating at different islands of the Organization of Eastern Caribbean States (OECS) include (Briceno-Garmendia et al. 2013):

D.1 Dominica

About 16 schooners operate out of Dominica, most based at Portsmouth in the north of the island. Main trade is in agricultural products outbound, and the whole range of break-bulk inbound, mostly from Trinidad. Recently, an outbound trade in vegetables has developed to Antigua. A ship owner from Plymouth recently bought a second-hand passenger ferry with a 360-seat capacity, but he is having difficulty getting the vessel certified for international transit.

The below map shows the trade into and out of Dominica graphically:

Map D.1 Dominica Inter-Regional Informal Imports and Exports, 2009 (GOPA 2009)

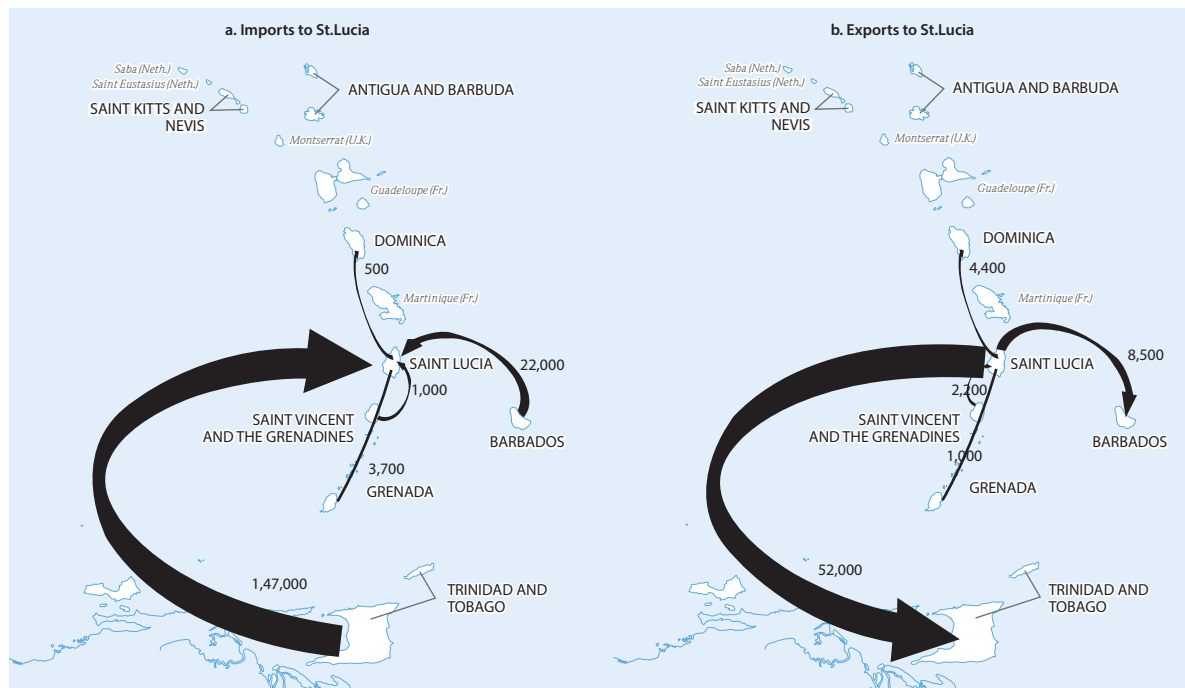


D.2 St. Lucia

Two schooners operate out of St. Lucia at Vieux Fort and Castries. Within the region, St. Lucia imports light manufactured goods from Trinidad and Barbados and exports agricultural produce in return.

The map below shows the trade into and out of St. Lucia graphically.

Map D.2 St. Lucia Inter-Regional Informal Imports and Exports, 2009

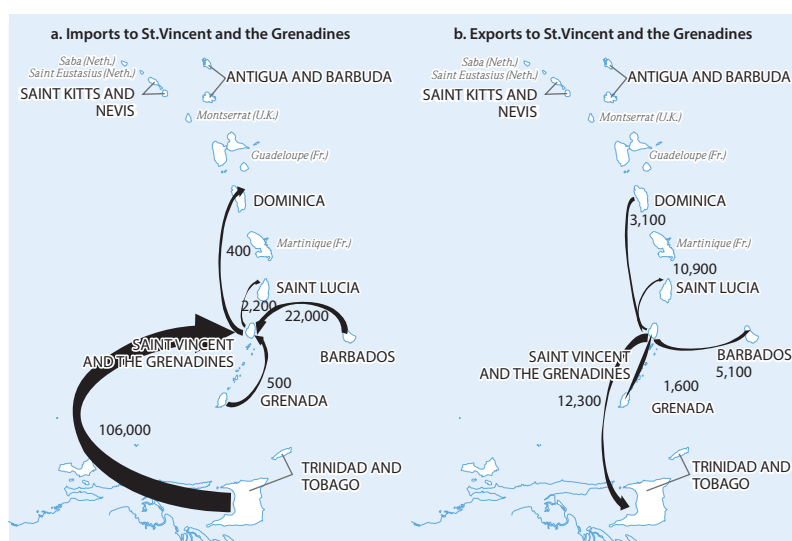


D.3 St. Vincent and the Grenadines

St. Vincent and the Grenadines has the largest fleet in the region, comprising 21 informal vessels based in Kingstown but trading throughout the Eastern Caribbean. This includes the ferries operating on the domestic trades between the mainland and the Grenadines as well as vessels plying the St. Vincent to Trinidad and Barbados trades.

The below map shows the trade into and out of St. Vincent and the Grenadines graphically:

Map D.3 St. Vincent and the Grenadines Inter-Regional Informal Imports and Exports, 2009

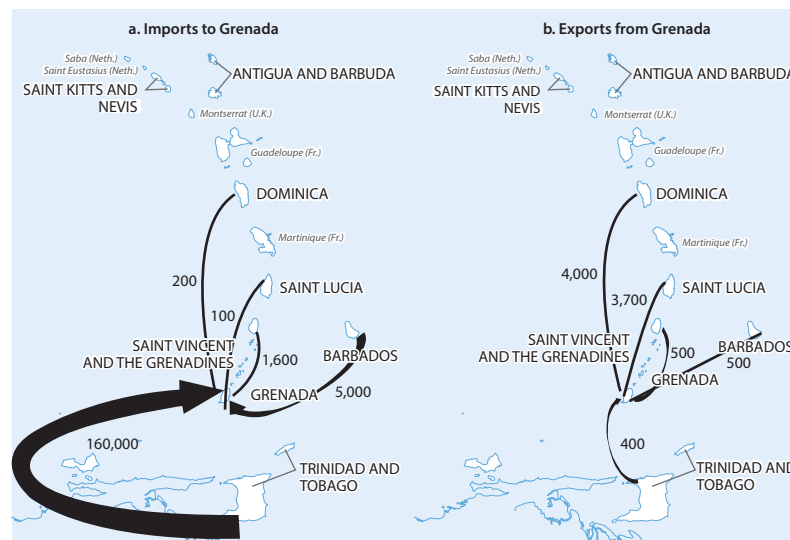


D.4 Grenada

Four informal vessels operate out of Grenada, based in St. George's. They run a regular schedule to Port of Spain, departing Tuesday evening and returning Friday morning. Southbound cargoes include small amounts of agricultural produce (the huckster trade) and scrap metal; while building materials, spare parts, light manufactures, and foodstuffs are northbound. In addition, several small Ro-Ro vessels from St. Vincent occasionally trans-ship vehicles and other break-bulk cargo from Barbados. Grenada also has the Osprey ferry, which carries small amounts of cargo to Carriacou and Petite Martinique.

The below map shows the trade into and out of Grenada graphically:

Map D.4 Grenada Inter-Regional Informal Imports and Exports, 2009



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APPENDIX E

Global Ferry Industry

This section looks at the global ferry industry and draws lessons that could be applied to a new ferry project in the Eastern Caribbean. The first section looks at the current state of the overall industry; the second section describes the various types of ferries and their different uses. Finally, the third section looks at the new breed of fast ferries, including operating performance, such as speed, fuel consumption, etc.

E.1 The Global Ferry Fleet

In 2012, the global ferry fleet consisted of 1,183 vessels of various sizes and characteristics. A primary distinction in ferry types is whether the vessel carries both passengers and vehicles or passengers only. The main types of ferry vessels are:

Walk-On Ferries: These tend to be smaller, travel shorter routes, have no beds, and carry no vehicles nor cargo.

Passenger/Vehicle Vessels (RoRo Vessels): These tend to be larger, travel longer distances, often have beds and carry cars, trucks, and buses. Generally speaking, shorter faster routes are growing in demand while longer routes are in decline.

Vehicle-Only Ro-Ro Ferries: These carry exclusively cargo and offer either no cabins for drivers or at most a limited number (usually, only 12 driver spaces due to classifications of vessel types for insurance purposes).

Hydrofoils: Hydrofoils are high-speed, passenger-only ferries. They had their peak in the 1960s and 1970s, but since then there has been a steady decline in their popularity. They are technically complex, expensive to build and require high maintenance.

Catamarans: Catamarans are an increasingly popular ferry type. They are generally operated as passenger boats and are popular wherever they are used. Speed is the major factor of a catamaran and for this reason catamarans have become increasingly popular ferry types.

The Fast-Ferry Segment: These “walk-on” vessels operate on shuttle services in large cities, coastal operations, and sightseeing; while high-speed ferries are found in longer routes, carrying both passengers and vehicles. The fast-ferry segment has posted the largest gains in the world ferry market. The table below shows that the Mediterranean has by far the largest proportion of fast ferries (designated HSC for “high speed craft” as opposed to the M/V or “motor vessel” for traditional ferries).

Table E.1 Distribution of the Global Fast-Ferry Fleet

<i>Region</i>	<i>Number of vessels</i>	<i>Car capacity</i>	<i>Passenger capacity</i>	<i>Maximum speed</i>	<i>Average age</i>
Mediterranean	70	11,660	53,779	36	12
Persian Gulf	27	2,106	14,368	35	8
Baltic	18	1,800	8,075	35	9
North Sea	17	2,989	13,096	37	13
South America	14	2,220	10,558	38	12
South East Asia	9	737	6,388	38	9
North America	8	989	3,894	35	6
Pacific	6	418	3,495	35	11
Japan	4	559	1,910	36	11
Other	2	261	1,311	39	11
Totals	175	23,739	116,874	36	10

Source: Sea Phantom International n.d.

E.2 International Regulation of the Ferry Industry

The ferry industry is heavily regulated in terms of safety, environmental impact, and security. Ferries that operate solely within the confines of one nation are regulated by that nation. However, the International Maritime Organization (IMO) is the United Nations body responsible for establishing regulations for international shipping. Three key international IMO Conventions govern international shipping are¹:

Safety of Life at Sea (SOLAS): The SOLAS Convention in its successive forms is generally regarded as the most important of all international treaties concerning the safety of merchant ships. Its most important provisions relate to:

- Construction—subdivision and stability, machinery, and electrical installations;
- Fire protection, detection and fire extinction;
- Life-saving appliances;
- Radiocommunications;
- Safety of navigation;

¹ International Maritime Organization's website, available at : <http://www.imo.org/Pages/home.aspx>.

- Carriage of cargoes;
- Safety measures for high-speed craft (HSC).

The International Convention for the Prevention of Pollution from Ships (MARPOL): This is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW): The 1978 STCW Convention established basic requirements for ensuring competent personnel in international shipping. The Manila amendments to the STCW Convention were adopted in 2010, marking a major revision of the regulations.

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APPENDIX F

Criteria for a Feasibility Assessment of a Regional Ferry System

This appendix discusses some of the key criteria that a feasibility assessment and a subsequent viability gap financing scheme of a regional ferry system needs to take into consideration.

F.1 Potential Routes

A feasibility assessment of the regional ferry system would need to carry out an in-depth evaluation of the potential routes. For example, should trips by sea be limited to *nearby* islands (i.e., before seasickness sets in)? The survey of potential tourists, as well as an assessment of the experiences of other countries would be helpful in answering this question. Some proposed ferry routes that could be assessed further in a feasibility study are included in **Box F.1**.

This pattern of potential regional linkages is shown in **Map F.1** below.

Box F.1 Potential Ferry Linkages in the Eastern Caribbean

Northern Circle: Historically there are close linkages among the Northern Caribbean islands; people move freely, seemingly immune from restrictions. The sub-region is served by ferry from Antigua to Barbuda and from St. Kitts to Nevis. There is also a ferry from Antigua to Montserrat. Occasionally, ferries will put on ad hoc charters to St. Maarten, chiefly for shopping. There is interest in fast-ferry service for day trips to Montserrat to view the volcano damage.

Express des Iles: The region's only sustained international ferry service, Express des Iles, provides regular fast-ferry services from Guadeloupe in the north to St. Lucia in the south.^a This has a positive impact on connectivity within the sub-region. For example, tourists are increasingly taking the ferry from Martinique to Dominica (the Nature Isle), spending a few days in eco-lodges, rain forests, etc. With coordination of arrival and departure times, Express des Iles could interconnect with a southern-based ferry operator.

Barbados–St. Lucia: Both islands are major regional tourist destinations: Barbados with 508,520 arrivals in 2013, St. Lucia with 318,626. However, each island offers a vastly different physical environment and tourism product. Barbados is a relatively flat island with many beautiful beaches, restaurants, and tourist attractions; while St. Lucia has dense mountains, the Pitons, and French-influenced culture.

box continues next page

Box F.1 Potential Ferry Linkages in the Eastern Caribbean (*continued*)

The Grenadines: The Grenadine Islands, located halfway between St. Vincent and Grenada, are the quintessential island-hopping experience. Including the world famous Tobago Cays, the Grenadines attract thousands of visitors every year, most of whom accept the high cost and hassles in traveling to remote destinations. There is a great deal of movement within the Southern Grenadines, most of which occurs in small informal boats and goes completely unrecorded.

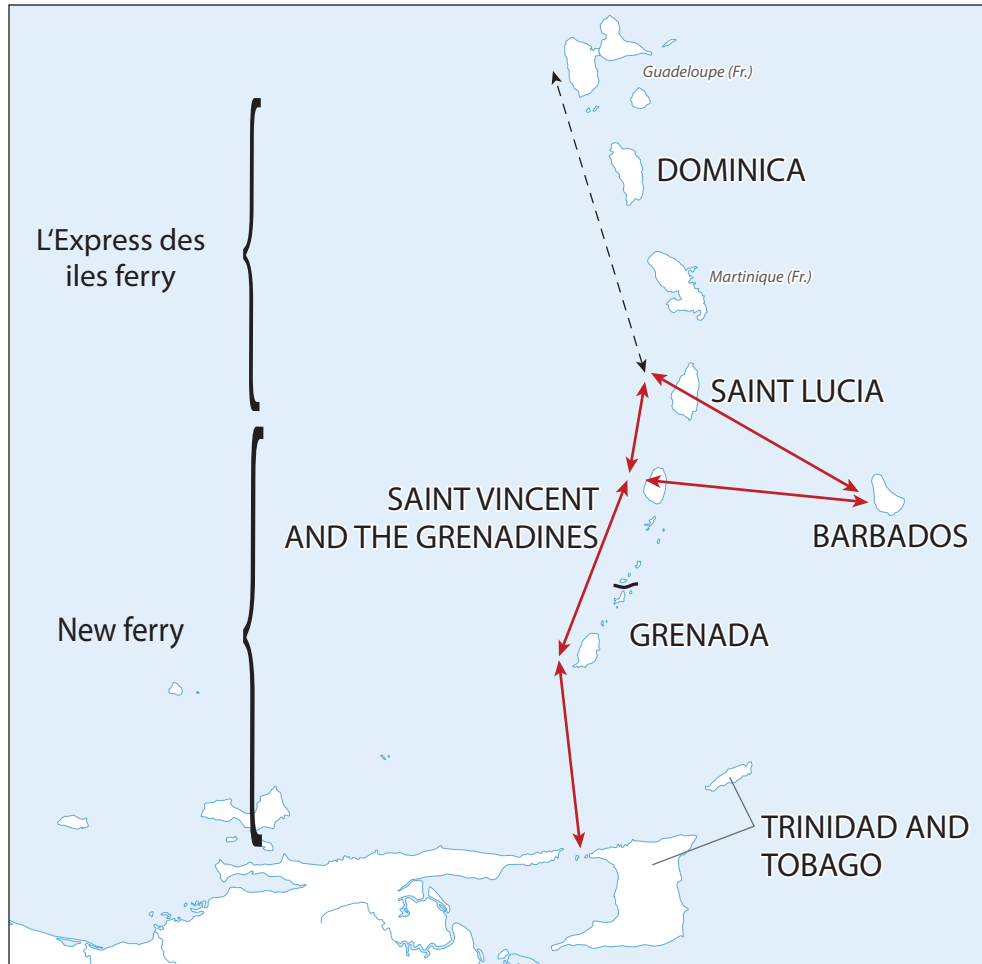
Trinidad—Grenada: There are strong historical, cultural, and trade links between Trinidad and Grenada. About 30,000 passengers per year fly the route, or 600 per week.^b Successive administrations have tried to launch ferry projects—without success. Charter ferries are put on for special events (carnivals, cricket), with constant calls for such a ferry service to be made permanent. According to local informed opinion, a low-cost ferry service would significantly increase passenger traffic between Trinidad and Grenada.

a. The most sustainable international service involves the French islands of Martinique and Guadeloupe, which flank Dominica. Because of strong cultural ties between St. Lucia and Martinique, the carrier I'Express des Iles connects St. Lucia, Martinique, Dominica, and Guadeloupe. Beyond this, international services can only be found between St. Kitt's and Antigua, Antigua and Montserrat, and Montserrat and St. Kitts. The remaining services are all domestic, with ferries connecting St. Kitts with Nevis, Grenada with Carriacou and Petit Martinique, and St. Vincent with the Grenadines.

b. CTO data collected during mission travel

Map F.1 Potential Ferry Linkages



Map F.2 Proposed Routes to Assess

One option to assess would be whether it would be prudent to use L'Express des Iles ferry for the northern islands, and to develop a ferry system that would serve the southern islands (Map F.2). This new ferry service serving the south could interconnect with L'Express des Iles in St. Lucia for onward journeys to Martinique, Dominica, and Guadeloupe. Currently, according to stakeholders, the limited traffic from the Leeward Islands to the more southerly Windward Islands, coupled with long sea times, may argue against putting on a ferry route linking Antigua to the southern islands. Finally, as noted earlier, sea conditions may pose an obstacle to ferry routes between Barbados and Trinidad or Grenada.

F.2 Voyage Distances

For some Caribbean voyages, even at high speeds, sailing times can be lengthy, involving overnight trips. Table F.1 below shows the distances between islands in the Eastern Caribbean, and the associated sailing times at various vessel speeds. Voyage distances

Table F.1 Eastern Caribbean Sailing Distances

Route	Distance in miles	Distance in nautical miles	Sailing time (hours)		
			At 30 knots	At 20 knots	At 15 knots
Trinidad–Barbados	207.0	179.9	6.0	9.0	12.0
Trinidad–Grenada	103.3	89.8	3.0	4.5	6.0
Grenada–St. Vincent	85.1	73.9	2.5	3.7	4.9
Grenada–Barbados	160.0	139.0	4.6	7.0	9.3
Barbados–St. Vincent	111.4	96.8	3.2	4.8	6.5
Barbados–St. Lucia	108.5	94.3	3.1	4.7	6.3
Barbados–Dominica	196.5	170.8	5.7	8.5	11.4
St. Vincent–St. Lucia	47.7	41.5	1.4	2.1	2.8
St. Lucia–Dominica	107.4	93.3	3.1	4.7	6.2
Dominica–Antigua	135.0	117.3	3.9	5.9	7.8
Antigua–St. Lucia	225.7	196.1	6.5	9.8	13.1
Antigua–Saint Kitts	68.4	59.4	2.0	3.0	4.0

Source: Sea Distance website, available at <http://www.sea-distances.org> (accessed June 2014).

Note: 1 mile = 0.87 nautical mile; 1 nautical mile = 1.15 miles; one knot = 1.15 miles per hour.

and sailing times play a key role in determining the type of vessel that would be needed for the region.

F.3 Potential Fare Structures

In Greece, which has well developed air and sea networks serving upwards of 20 million passengers a year, the average ratio of ferry to air fares is about 35 percent (Rigas 2009). However, given the small size of the Eastern Caribbean market, an initial appropriate target for a ferry to charge may need to be different (e.g., at about 50 percent of applicable air fares, Table F.2), with the hope that the rates will drop as volumes increase. Alternatively, to lower the prices charged to the levels that resemble global averages, government subsidies may be needed. The worldwide price average per passenger for a ferry is at US\$ 20.51 (Sea Phantom International n.d.). Table F.2 below shows how a potential fare structure for a ferry project which is at 50% of Leeward Island Air Transport (LIAT) fares is significantly above the worldwide fare average (not taking into account any government subsidies). A potential fare structure will be an important element of the feasibility assessment.

Table F.2 Potential Fare Structure for Ferry Project

<i>One-way ferry trip</i>	<i>Average one-way LIAT fare (\$)</i>	<i>Proposed ferry fare (\$)</i>	<i>Ferry/Air percent</i>
Trinidad–Grenada	136.79	70.00	51.2
Grenada–St. Vincent	144.37	60.00	41.6
Barbados–St. Vincent	166.07	90.00	54.2
Barbados–St. Lucia	182.23	95.00	52.1
St. Vincent–St. Lucia	161.80	70.00	43.3
Average	158.25	77.00	48.7

LIAT website available at: <http://www.liatairline.com> (accessed June 2014); for travel May 2014. Fares expressed in US\$.

F.4 Potential Vessel Speed

Another important question that a feasibility study needs to answer is the potential vessel speed, taking into account the longer time of travel in a slower ferry, the higher costs associated with higher speed, as well as sea conditions. Compared to flying, travelling around the region by sea would usually entail the better part of a day's travel. **Table F.3** below shows transit times by air and by ferry at different speeds.

As mentioned earlier, in both the Caribbean and Greece, fast ferry fares are almost twice as high as on the slower ferries, and the different types of ferries have different fuel consumption. **Table F.4** below shows fuel consumption of typical ferries at different passenger capacities and speeds, which should be taken into account when choosing the most appropriate type of ferry for the region.

To appreciate the real “cost of speed,” the following are average Greek ferry fares at different vessel speeds¹:

- At average 14.1 knots; fare = US\$0.37 per nautical mile
- At average 22.4 knots, fare = US\$0.66 per nautical mile

Marine conditions are another key determinant of vessel speed. It is uncomfortable—and sometimes dangerous—to maintain high speeds in rough waters; particularly when heading against prevailing winds and currents. Fast ferry operators in the Caribbean routinely reduce vessel speeds in order to provide their customers with a more comfortable ride.²

¹ Greek ferry operator websites.

² One fast ferry operating between Trinidad and Tobago was nicknamed “the vomit comet.”

Table F.3 Voyage Times by Air versus Sea

<i>One-way ferry trip</i>	<i>By Air (flight time only)</i>	<i>By Sea (at 20 knots)</i>	<i>By Sea (at 15 knots)</i>
	<i>Minutes</i>	<i>Hours</i>	
Trinidad–Grenada	30	4.5	6
Grenada–St. Vincent	20	4	5
St. Vincent–Barbados	35	5	6.5
Barbados–St. Lucia	35	5	6.5
St. Lucia–St. Vincent	15	2	3

Source: World Bank Group Calculation.

Table F.4 Fuel Efficiency of Ferry Types

<i>Type</i>	<i>Speed (knots)</i>	<i>Passenger capacity</i>	<i>Miles per hour</i>	<i>Fuel consumption per hour</i>	<i>Miles per gallon</i>	<i>Miles per gallon per passenger</i>
Monohull I	< 25	1,000	14	152	0.09	95.00
Monohull II	< 25	300	18	25	0.72	216.00
Monohull II	< 25	400	14	30	0.47	187.00
Catamaran	> 25	400	28	197	0.14	57.00
Catamaran	> 25	300	39	140	0.28	84.00
Catamaran	> 25	300	34	125	0.27	82.00
Catamaran	> 25	199	30	100	0.30	60.00
Hovercraft	> 35	180	45	90	0.50	90.00
Hydrofoil	> 35	75	40	40	1.00	75.00

Source: Sea Phantom International n.d.

F.5 Ferry Operating Costs

In determining the financial feasibility of a potential ferry system, the assessment needs to take into account the ferry operating costs. Based on information provided by the shipping industry experts, in the global shipping industry, operators procure new vessels by one of two principal methods: outright purchase, or time charter. When a shipping company purchases a vessel outright (either new or second hand), it becomes responsible for all costs of crewing the vessel, maintenance, annual dry docking, insurance, plus all the other costs associated with the daily running of the ship. The other method of acquiring tonnage is to time charter the vessel. Under a time charter arrangement, one shipping company “rents” a vessel from another shipping company; paying a flat fee to cover all operating costs, plus financial costs and hopefully a margin of profit. Shipping operators frequently add new tonnage via time charters; as this reduces the capital costs associated with fleet expansion.

In a situation where a new ferry is being launched, it is important to evaluate whether acquiring vessels through the time charter route would be a more prudent option or not. Time charter it would relieve the operator of having to invest large sums of money in purchasing vessels for a speculative new venture. In addition, if adjustments to the number and type of vessels are needed after start-up, this could easier be done by changing a time chartered fleet than by selling owned vessels and buying replacements.

Based on information provided by shipping industry experts, fast ferries cost more to operate than traditional slower boats. Faster ferries generally cost more to buy, own, insure, crew and maintain than slower boats. The new fast catamarans are more expensive and technically complex than traditional mono-hull ferries. Fast ferry operators in the Caribbean complain about the high cost of importing engine parts and mechanics to maintain these vessels. Fast ferries have to be crewed by captains and engineers holding qualifications from internationally recognized maritime authorities, who are more expensive than locally recruited crews. Some of these reasons explain why the daily time charter rate for fast ferries is estimated to be 10 percent higher than traditional slow ferries.

In addition to time charter costs on the vessels, a feasibility assessment needs to look at voyage costs. These include fuel, port charges, clearance fees, agents' fees, and other expenses associated with sending a vessel from point A to point B.

F.6 Passenger, Vehicle, and Cargo Forecasts

Passenger forecasts form an important part of the feasibility assessment. Since the ferry industry is characterized by high fixed costs, the costs per passenger falls rapidly as the number of passengers increases.

Similarly, the feasibility assessment needs to take into consideration the potential movement of cargo and vehicles. As mentioned earlier in the paper, current regulations in the OECS region prohibit the temporary movement of vehicles around the region. In the Greek ferry system, large Roll-on Roll-off (Ro-Ro) vessels carry a mixture of foot passengers, cars, trucks and buses; at a ratio of 8.7 foot passengers to every vehicle.

F.7 Sea Conditions

In addition to sailing distances, consideration has to be given to sea conditions. According to stakeholders, voyages to and from Barbados, located to the east of the Windward and Leeward island chain, in the rough Atlantic waters would be a challenge. According to stakeholders, ocean passages from St. Lucia and St. Vincent are the easier crossings to Barbados; sailing from more southerly directions (e.g., from Grenada or Trinidad and Tobago), vessels would encounter stiff Atlantic wind and waves head-on, which could result in a rough ride. For these reasons, even though there is fairly heavy passenger traffic between Barbados and Trinidad, the feasibility assessment needs to look further into whether a direct ferry route between both islands would be advisable. For the same reason, similar assessment needs to be made of the routes between Grenada towards Barbados.

F.8 Passenger Preferences

Any regional ferry system needs to take into consideration passenger preferences. Preliminary assessments seem to suggest that Caribbean passengers may prefer shorter sea voyages. For example, 93.6 percent of trips from Dominica to Martinique are made by ferry—a voyage of about 1.5 hours. From St. Lucia to Dominica, where the voyage time extends to four-plus hours, only 39.1 percent of trips from are made by ferry (GOPA 2009). There may, of course, be other explanations for these patterns, which need to be explored further. As part of the feasibility assessment, a survey of foreign and local tourists would be important in determining priorities, as well as an ideal speed for the ferry.

Another area of preference that a potential survey needs to take into consideration is the experience of ferry itself. The tour operator survey shows that many tourists are interested in multi-destination holidays. One enjoyable way of doing so would be by ferry, where the journey, amid a tropical island setting, becomes a tourist attraction in itself (unlike flying). A survey of local and international tourists could assess whether, indeed, this would be feasible.

F.9 Preliminary Estimates of Costs, Revenues, and Subsidies for the Southern Islands' Ferry

Given all the considerations discussed above, this section provide some preliminary projections on the costs, revenues and subsidies for a new ferry system linking the southern islands—Trinidad, Grenada, St. Vincent, Barbados and St. Lucia, consistent with **Map F.2** in this appendix. It is important to remember that the discussion in this section is on the basis of rough outline of possible costs and revenues, on the back of stated assumptions. A detailed analysis and feasibility would be needed before decisions on setting up a regional ferry are made. For simplicity, the estimates will take into account different scenarios of potential fare structures and customers' demand while holding several technical assumptions of the ferry system fixed. We assume a time charter arrangement for the ferry system since there is high uncertainty in terms of customer demands at start-up. We will also assume the same type of vessel (and associated costs) in both scenarios with and without vehicle transportation. Details on the basic assumptions on the supply side are presented in **Table F.5** below.

Table F.5 Basic Assumptions on the Ferry System and Associated Costs

<i>Medium speed ferry</i>	<i>Trinidad– Grenada</i>	<i>Grenada– St. Vincent</i>	<i>St. Vincent– Barbados</i>	<i>Barbados– St. Lucia</i>	<i>St. Lucia– St. Vincent</i>	<i>Total</i>
Technical specifications						
Distance (Nms)	89.8	73.9	96.8	94.3	41.5	
Speed (Nms/h)	15.0	15.0	15.0	15.0	15.0	
Sailing time (hours)	6.0	4.9	6.5	6.3	2.8	
Passenger capacity (per voyage) ^a	300	300	300	300	300	
Fuel consumption (gallons per hour) ^b	25	25	25	25	25	

table continues next page

Table F.5 Basic Assumptions on the Ferry System and Associated Costs (*continued*)

<i>Medium speed ferry</i>	<i>Trinidad–Grenada</i>	<i>Grenada–St. Vincent</i>	<i>St. Vincent–Barbados</i>	<i>Barbados–St. Lucia</i>	<i>St. Lucia–St. Vincent</i>	<i>Total</i>
Proposed schedule						
Trips per week ^c	4	4	4	4	4	
Trips scheduled per year	208	208	208	208	208	
Charters	8	6	8	8	6	
Total voyages per year	216	214	216	216	214	
Yearly passenger capacity	64,800	64,800	64,800	64,800	64,800	324,000
Per voyage fixed cost (US\$)^d						
Fuel cost	1,186	1,027	1,257	1,232	700	
Port costs (total)	1,100	1,100	1,100	1,100	1,100	
Total voyage costs	2,286	2,127	2,357	2,332	1,800	
Time charter costs	5,758	4,743	6,209	6,047	2,659	
Annual fixed cost (US\$)^e						
Vessel time charter costs	1,243,633	1,015,036	1,341,149	1,306,236	568,945	5,475,000
Fuel costs	256,244	219,814	271,544	266,066	149,827	1,163,495
Port costs	237,600	235,400	237,600	237,600	235,400	1,183,600
Admin/overheads	173,748	147,025	185,029	180,990	95,417	782,210
Total	2,040,825	1,681,475	2,164,922	2,120,493	1,113,790	9,121,505
Variable cost (US\$)^f						
Per passenger	2	2	2	2	2	
Per vehicle	20	20	20	20	20	

Note: World Bank staff estimates, all monetary costs are in US\$.

a. Vehicle capacity on this type of vessel is between 10–15% of passenger capacity.

b. Fuel efficiency estimates come from Sea Phantom International, as specified in table F.4 above.

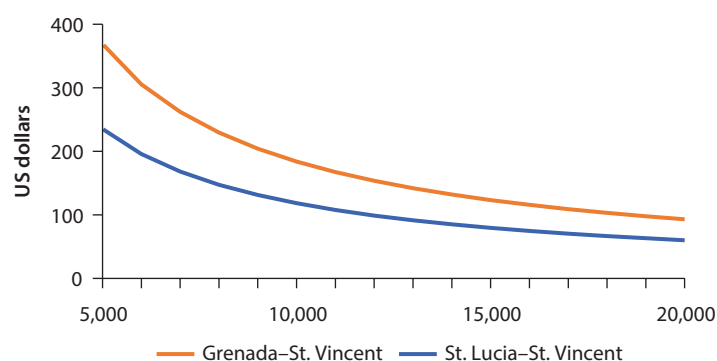
c. Two return trips per week on Trinidad–Grenada–St. Vincent and 4 one-way trips per week on the loop St. Vincent–Barbados–St. Lucia. With this schedule, all trips during can be accommodated during daytime using two ferries. Higher frequency will require more than two ferries while demand might be too thin, whereas lower frequency might be perceived as too inconvenient, reducing demand substantially.

d. Fuel cost includes cost of fuel consumption at sea and in port. Port cost includes docking fees, clearance, agency fees, and crew meals. These cost estimates are based on actual operating costs of the Caribbean ferry operators. Hourly charter cost depends on vessel technical specifications and is estimates to be US\$962 based on Drewry Shipping Consultants.

e. Annual charter cost, fuel cost and port costs are calculated as the number of voyages per year multiplied by the per voyage cost.

f. Variable cost per passenger and vehicles are estimated staff costs associated with assisting and managing customers and vehicles during sailing, discharge and loading, based on consultations with Drewry Shipping Consultants.

Figure F.1 Average Cost/Break-Even Fare as a Function of Annual Passenger Traffic



Source: World Bank staff calculations.

Under the assumption above, the ferry system is characterized by constant marginal cost and average cost that falls rapidly with passenger demand. **Figure F.1** below demonstrates the average cost associated with the Grenada–St. Vincent and St. Lucia–St. Vincent ferries at different rates of demand. The distance is shorter between St. Lucia and St. Vincent so the (chartered) cost of running the ferry is lower for the same number of voyages. If the annual demand is at 5,000 passengers per year, the break-even fares need to be as high as 366 US\$ and 235 US\$ for Grenada–St. Vincent and St. Lucia–St. Vincent routes respectively. However, if demand increases to 20,000 passengers per year, the break-even fare would fall to 90 US\$ and 60 US\$ only. For the break-even fares to reach below 100 US\$, the annual demand for the Grenada–St. Vincent ferry needs to reach 19,000 per year, or approximately 16% of Grenada’s total tourist arrival in 2013. If 5% of St. Lucia’s international tourists³ engage in island-hopping using the ferry, the break-even fare for the St. Lucia–St. Vincent ferry could fall below 70 US\$, which is below 50% of the current LIAT fare on the same route.

To understand the effects that passenger demands have on the financial position of the ferry system, we will consider two target fare structures and different assumptions of tourist and resident demands associated with them. As discussed in section C above, two potential ferry fare structures are pricing at around 50% of the air tickets on the same route, or at 35% as the norm in the Greek case. It will be assumed that such a ferry system will induce 20% and 30% of the current LIAT customers on each route to switch to ferry, respectively.⁴

³ St. Lucia and Grenada total tourist arrivals in 2013 are 318,600 and 116,500 respectively.

⁴ We do not have direct evidence for the cross-elasticities of ferry and air demand at different prices. Therefore, we experimented with different assumptions on the percentage of LIAT customers who will switch to ferry at the two ferry fare structures to understand their implications on aggregate ferry demand. The two ferry fare structures that we look at are, first, when the ferry fare is at about 50% of LIAT and second, when it is at 35%. When the fare structure is at 50%, based on the

A rough estimate on international tourists' demand for the ferry service is derived from the travel agent survey (see Appendix C) as well as the number of tourist arrivals in 2013 in each country. The assumption, based on the survey results is that an additional 7.65% of regional tourists and 8.5% additional international tourists can be expected to engage in island hopping.⁵ To be more conservative, we use two scenarios that for each country, 2% or 5% of the current tourist arrival will be engaging in island hopping using the ferry services. We further assume that as is the norm in Greece, about 10% of passengers will take vehicles in the scenarios where vehicle transport is feasible. These assumptions result in the demand estimates presented in **Table F.6** below.

Table F.7 presents estimates on the aggregate profitability of the ferry system using the assumptions and scenarios presented above. It is clear that profits are higher when vehicles can be taken on board. Under the current assumptions, setting ferry price at 50% of the air fare is the preferable option. In the best case scenario where demand for island hopping can be expected to reach 5% of the current tourist arrivals and vehicles can be taken on board (scenario 1B with vehicles), total annual profit of the ferry system exceeds 1.8 mil US\$. However, if only 2% will engage in island hopping, subsidies will be required in all cases.

The above estimates present several plausible scenarios and indicate that there is potential for a profitable ferry system. However, subsidies might also be needed especially in the first few years if demand is slow to pick up. These estimates ignore several important considerations, including seasonality of demand which can further reduce profitability. A feasibility study will need to take into account all the issues that have been discussed so far. In addition, an important factor to consider is whether an efficient tendering scheme

table above, the aggregate ferry demand, calculated as the total of demand from LIAT customers who switch to ferry, as well as from new international tourists, on all routes, is at 40–64% of the aggregate LIAT demand on all routes (For this calculation, we use the assumption that the new LIAT demand equals old LIAT demand, less the number of customers switching to ferry, or $227907 - 45581 = 182326$. The aggregate ferry demand in 2 scenarios are $45581 + 28346 = 73927$ and $45581 + 70865 = 116446$ respectively. In other words, the ratio of new LIAT demand to ferry demands are 40% and 64% respectively). Using the same approach, when the fare structure is at 35% of LIAT fare, the aggregate ferry demand, based on the above table, is at 60–87% of the aggregate LIAT demand on all routes. We consider these assumptions to be conservative, given the evidence on an existing route with both air and direct ferry services in the OECS (St. Lucia-Martinique): When the ferry fare is at 70% of the average airfare, then the number of trips made by ferry is 250% the number of trips made by air (GOPA 2009). Relative ferry demand compared to air demand is lower under both our assumptions than in the OECS case even though the fare structure is such that the ferry to air fare ratio is lower in both our scenarios compared to the OECS.

⁵ Out of all responders, 76.5% indicate that a regional ferry can increase international tourists by more than 10% for multi-destination travel, while 23.5% think that the increase will be between 0 and 10%. The expected increase in demand could be estimated as a weighted average of these $([76.5\% * 10\%] + [23.5\% * 0])$. The same methodology has been used for calculating regional tourists. Given the sample size, response rate and nature of the survey, these numbers should be taken with a lot of caution.

Table F.6 Fare Structure and Demand Scenarios

	<i>Trinidad– Grenada</i>	<i>Grenada– St. Vincent</i>	<i>St. Vincent– Barbados</i>	<i>Barbados– St. Lucia</i>	<i>St. Vincent– St. Lucia</i>	<i>Total</i>
International tourist arrival, origin country ^a	402,000	116,500	71,700	508,500	318,600	
Total number of LIAT customers on the same routes in 2013 ^b	38,021	10,404	98,016	64,571	16,896	227,907
Scenario 1: ferry fare at about 50% LIAT fare						
One-way passenger fare ^c (US\$)	70	60	90	95	70	
One-way vehicle fares ^d (US\$)	105	90	135	143	105	
Ferry demand from current LIAT customers (assuming 20% switch)	7,604	2,081	19,603	12,914	3,379	45,581
Scenario 1A: low tourist demand (2% arrivals)						
Ferry demand from new tourists	8,040	2,330	1,434	10,170	6,372	28,346
Scenario 1B: high tourist demand (5% arrivals)						
Ferry demand from new tourists	20,100	5,825	3,585	25,425	15,930	70,865
Scenario 2: ferry fare at 35% LIAT fare						
One-way passenger fare (US\$)	48	51	59	64	57	
One-way vehicle fares ^c (US\$)	72	76	87	96	85	
Ferry demand from current LIAT customers (assuming 30% switch)	11,406	3,121	29,405	19,371	5,069	68,372
Scenario 2A: low tourist demand (2% arrivals)						
Ferry demand from new tourists	8,040	2,330	1,434	10,170	6,372	28,346
Scenario 2B: high tourist demand (5% arrivals)						
Ferry demand from new tourists	20,100	5,825	3,585	25,425	15,930	70,865

a. Data from CTO 2014 and Trinidad & Tobago Statistics.

b. Estimated return seat traffic using 2013 sample data from airline scheduling system collected by Diio Transport.

c. See table F.2 above for reference LIAT fares on respective routes.

d. Vehicle fares are assumed to be 150% of passenger fares as the typical fare on Trinidad & Tobago's ferries. All monetary values are in US\$. Demand is expressed as the total number of passengers annually. Demand for vehicle transport is assumed to be 10% of total passenger demand following the norm in the Greek case and is omitted from the table for simplicity.

Table F.7 Annual Revenues, Costs, and Subsidies by Scenario

<i>No vehicles</i>	<i>Scenario</i>	<i>Total number of passenger</i>	<i>Revenue (US\$)</i>	<i>Cost (US\$)</i>	<i>Profit (US\$)</i>	<i>Subsidy required (US\$)</i>
Ferry fare is 50% LIAT fare	Low demand (1A)	73,927	6,128,662	8,752,160	–2,623,498	2,623,498
	High demand (1B)	116,446	9,494,437	8,837,198	657,239	0
Ferry fare is 35% LIAT fare	Low demand (2A)	96,718	5,531,136	8,797,741	–3,266,605	3,266,605
	High demand (2B)	139,237	7,924,335	8,882,779	–958,444	958,444
<i>With vehicles (assume 10% passengers will take vehicles)</i>		<i>Total number of passenger</i>	<i>Revenue (US\$)</i>	<i>Cost (US\$)</i>	<i>Profit (US\$)</i>	<i>Subsidy required (US\$)</i>
Ferry fare is 50% LIAT fare	Low demand (1A)	73,927	7,047,961	8,900,015	–1,852,054	1,852,054
	High demand (1B)	116,446	10,918,602	9,070,091	1,848,511	0
Ferry fare is 35% LIAT fare	Low demand (2A)	96,718	6,360,807	8,991,178	–2,630,371	2,630,371
	High demand (2B)	139,237	9,112,986	9,161,254	–48,268	48,268

Source: World Bank staff calculations.

Note: All monetary values are in US\$.

can be developed and should subsidies are required, what an appropriate institutional arrangement is given the heterogeneous costs and benefits that each country will receive from the ferry system.

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