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Air Transport in the OECS: Flying Solo?

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Air Transport in the OECS: Flying Solo?

OECS countries face two critical barriers for developing their infrastructure and connectivity: their conditions of island states and their geographic location in the Caribbean. Exchanges of goods and services with the rest of the world are limited to air and maritime transport modes, logistics costs are generally more expensive, and they face a disproportionate risk to natural disasters. This all translates in a cost premium for developing infrastructure, and higher transport services. Moreover, the OECS islands are small states characterized by small markets sizes and this imposes an important limitation for developing large infrastructure assets. The long life cycles that characterize these types of assets and the important upfront capital investments required—ever greater if climate resilient—make them suited for larger markets in which it is possible to reap the benefits of the economies of scale proper of such investments. In the case of OECS countries, this can only be developed through regional cooperation. Moreover, with the collapse of agricultural exports in the Caribbean in recent decades, the tourism sector has emerged as a key economic pillar, contributing in 2011, up to 12 percent of all jobs and about 14 percent of the region's GDP (WTTC, 2012). In the case of the OECS countries, in their condition of island states, tourism and air transport are invariably intertwined.

This note will take a look to the air transport sector and the implications for the tourism sector.

Air Transport: A Vital Channel for the Tourism Industry

At the moment, international tourist arrivals in the OECS are dominated by cruise visitors, which are between 2.5 and 3 times more numerous than stay-over visitors. As a matter of fact, the growth and development of tourism throughout 2000-2011 is largely attributable to the increase in cruise-ship passengers (Figure 1a, dashed line). During the same period, the numbers of stay-over visitors

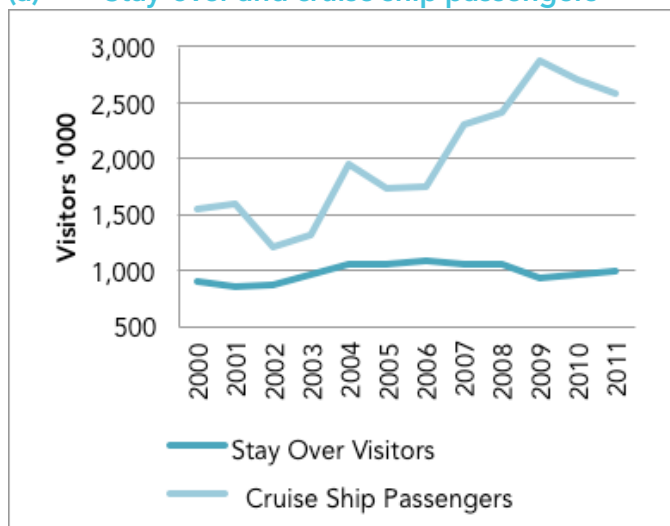
remained stable at about 1 million per year (Figure 1a, solid line). This is in contrast to what is observed in the Caribbean main destinations like Jamaica, Bahamas, and Aruba¹, where international tourism is dominated by stay-over visitors.

This difference has important economic implications, as cruise ship visitors do not offer the same revenue opportunities as stay-over resort visitors do. Passengers of a cruise ship consume by 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. It should not come as a surprise that between 2000 and 2011, while the number of international cruise-ship passengers increased about 66 percent (40 percent if we include all international visitors) the income generated by all passengers measured in terms of traceable spending increased only about 25 percent from approximately US\$95 billion in 2000 to US\$1,180 million in 2011 (Figure 1b). Anecdotal evidence indicates that average per head spending of visitors arriving by cruise ship was around US\$ 50-120 during the global economic downturn, whereas stay-over visitors typically spend more than US\$ 1,000.

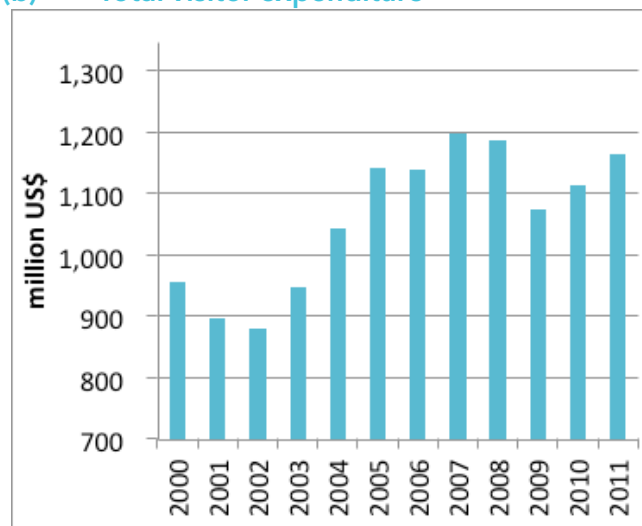
¹ The leaders are Dominican Republic, with 4.306 million arrivals during 2011, Cuba, with 2.688 million, Jamaica with 1.952 million, Bahamas with 1.344 million, Aruba with 871 thousand and Barbados with 568 thousand. Together, these countries host 56% of the tourists that arrive internationally to the Caribbean. The first 3 countries, Dominican Republic, Cuba, and Jamaica account for 43% of the tourist arrivals in 2011 (UNWTO Tourism Highlights, 2012 Edition).

Figure 1: Eastern Caribbean Countries International Tourism

(a) Stay-over and cruise ship passengers



(b) Total visitor expenditure



The fact that OECS international tourism is currently tilted towards cruise-ship passengers creates an opportunity waiting to be grabbed, and has important implications for air connectivity.

Even with a relatively small share of international passengers in stay over (one third of total in 2011), the overall contribution of tourism to the economy is quite significant, ranging from 24 percent in Grenada to 74 percent in Antigua and Barbuda (WTTTC, 2012); much higher than the 14-16 percent found in leading Caribbean destinations. If and when stay-over trends improve, the local economies can benefit from higher demand from items typically consumed by stay-over tourists such as traditional crops (including mango, pineapple, and papaya); fresh produce, fish and seafood, services, including those provided at yachts and marinas, hotel receipts linked to services and goods; among other things. The main way for higher-revenue tourists to arrive is through airlift, making air transport the vital pipeline for hotel arrivals. Focusing on increasing stay-over tourism therefore implies tackling air connectivity of the OECS islands within themselves and with the rest of the world as a main bidding constrain.

Given the physical infrastructure layout, many of the islands rely on other countries and intra-regional traffic to connect with the rest of the world. The OECS islands are connected by two types of air transport systems, one linking islands among themselves, and another connecting them

to longer-distance destinations. The inter-island system is served predominantly by one carrier, LIAT. A separate system links the OECS region with the origin of its arriving tourists and it is served by international (no-OECS) carriers. The two systems are currently poorly interlinked.

The inter-island system is wrought with inefficiencies and mixed connectivity.

The Inter-island air service operates in a challenging environment in which for some pairs of islands there is barely a flight connection in one or two days. As a way of example, Table 1 shows how difficult it might be to visit St. Kitts from another neighboring OECS country. It can take 4-9 hours or even overnight, and up to two connections. Similar case is observed for St. Vincent. This situation represents an enormous cost for inter-island connectivity but it also creates enormous hurdles for international tourism. The main inter-island carrier LIAT currently does not interline with any of the other larger carriers, so it cannot really contribute to the efficient distribution of tourists amongst the islands. Moreover, LIAT's reliability in recent years is being challenged by its inability to recover costs². This is having an important impact on maintenance. Schedule integrity is often compromised due to the breakdown of equipment. In practice this means that given that LIAT is a de facto monopoly many OECS islands are not only poorly connected but the existing connections work erratically and unpredictably.

² As reported in interviews by some LIAT officials, as many as 39 out of 112 daily flights are not profitable.

Table 1: The table below shows all attempts in finding connections, with their pricing in US\$, for a travel date of December 5, 2012, which is a Wednesday.

Origin	Destination						
	Antigua	Dominica	Grenada	Nevis	St. Kitts	St. Lucia	St. Vincent
Antigua		128.10 to 188.60 direct depending on time of day, 40 minutes	337.30 via Barbados, 6 ½ hours travel time available only! (All other connections sold out)	178.80 direct, only 1 connection in the afternoon, ½ hour	144.70 direct, only 6:30 am morning flights (11:30 flight booked out), ½ hour	Direct: 159.37 at 5:30 am (1 hour 5 minutes), via Barbados: 239.47 at 6:30 am, arriving 15:20 pm	252.80, either via Barbados or Trinidad, mostly 4 to 5 hour trip, several connections throughout the day
Dominica	126.33 to 202.65 direct, depending on time of day, 40 minutes	251.68 via Barbados, 2 connections, only one (morning) available, 5 ½ hours travel time	251.68 via Barbados, 2 connections, only one (morning) available, 5 ½ hours travel time	\$152.98 to \$162.65, via Antigua, only one flight from Antigua to Nevis in the afternoon, i.e. morning flight has over 6 hour layover in Antigua), shortest 2 hours	180.15 via Antigua, on the 6 th , 5 ½ hour travel time only late afternoon/evening available, morning connection sold out.	160.82 via Barbados then Saint Vincent, \$170.52 via Antigua. Travel time 2 hours 40 minutes on Antigua connection, 6 hours + on the others	170.13 via Barbados, only early morning flights still available, travel time 3 hours 10 minutes to 6 hours 50 minutes
Grenada	338.43 via Barbados.	261.43 via Barbados, only afternoon connection available, shortest travel time 2 hours 40 minutes	290.93 via Barbados, only afternoon connection still available, travel time 5 hours.	290.93 via Barbados, only afternoon connection still available, travel time 5 hours.	310.93 via Barbados and then Antigua on the 7 th , only morning flight at 6:30, shortest travel time 5 hours 20 minutes.	189.80 via Barbados, only noon connection still available, 3 hours 5 minutes travel time	159.93 to 183.43, Barbados or Trinidad, Barbados being the most expensive, shortest travel time 2 hours 5 minutes
Nevis	175.40 Departing on the 12 th , not the 5 th , 30 minutes	156.20 via Antigua, only on the 12 th , 2 hours 10 minutes, only 13:35 departure time	279.80 via Antigua then Barbados, only on the 12 th , 6 hours.	140.10 via Antigua on the 6 th , overnight connection	128.10 via Antigua overnight connection, on the 12 th .	239.57 via Antigua, only on the 12 th , overnight connection	259.40 via Antigua then Barbados, shortest travel time 5 hours 5 minutes.
St. Kitts	159.60 direct, 30 minutes, 21:55 only	210.70 via Antigua, only on the 14 th , 7 hours 5 minutes	No Price	140.10 via Antigua on the 6 th , overnight connection		234.77 via Antigua on the 6 th , overnight layover only available at this point	\$279.80, via Antigua and then Barbados, only on the 14 th , travel time 9 hours 10 minutes
St. Lucia	339.10 via Barbados (there is a direct flight, sold out), shortest time 3 hours 30 minutes	237.47 via Barbados (only one late afternoon connection still available), 2 hours 50 minutes	234.10 via Barbados, only on the 7 th . Stopover in Canouan, 4 hours 10 minutes	\$304.10, via Antigua, only on the 7 th , 9 hours 35 minutes	304.10 via Antigua or Barbados, on the 6 th , 4 hours 15 minutes shortest travel time		217.05 via Barbados, overnight layover, on the 6 th
St. Vincent	244.15 to 274.54, cheaper has one connection in Barbados, more expensive is SVD-SLU-BGI-ANU, shortest travel time 3 hours 5 minutes	166.75 via Barbados, 2 hours 30 minutes shortest travel time, 2 morning and one late afternoon connection	130.30 to 147.10, morning and evening direct, other via Trinidad to Barbados, 35 minutes	257.95 via Barbados then Antigua, on the 6 th , overnight connections only	242.90 via Barbados then Antigua, on the 6 th , 9 hours 20 minutes	101.87 or 120.77, direct, 30 minutes	

Source: Compiled attempted reservations by author on LIAT's web site.

The lack of reliability of the inter-island air services creates incentives for islands to invest in their own air infrastructure rather than cooperate to develop a functional hub-and-spoke system of inter-island connectivity. In the absence of good air service connectivity, the system connecting OECS with the rest of the world becomes highly dependent on the availability of the individual island infrastructure to accommodate large aircrafts. In general, the OECS region has two important hubs: Antigua in the north, and Barbados in the south (figure 2). Trinidad also serves as a connection point. However, four of the six OECS islands under review –Antigua, Grenada, St. Kitts and Nevis, and St. Lucia– also have runways that are capable of handling wide-body aircraft. In the current structure of routes, this means that each of them receives their own direct or semi-direct long-distance flights bringing passengers to their island instead of relying on the inter-island connectivity system anchored in two hubs (Figure 3). Other OECS countries are starting to follow this model.

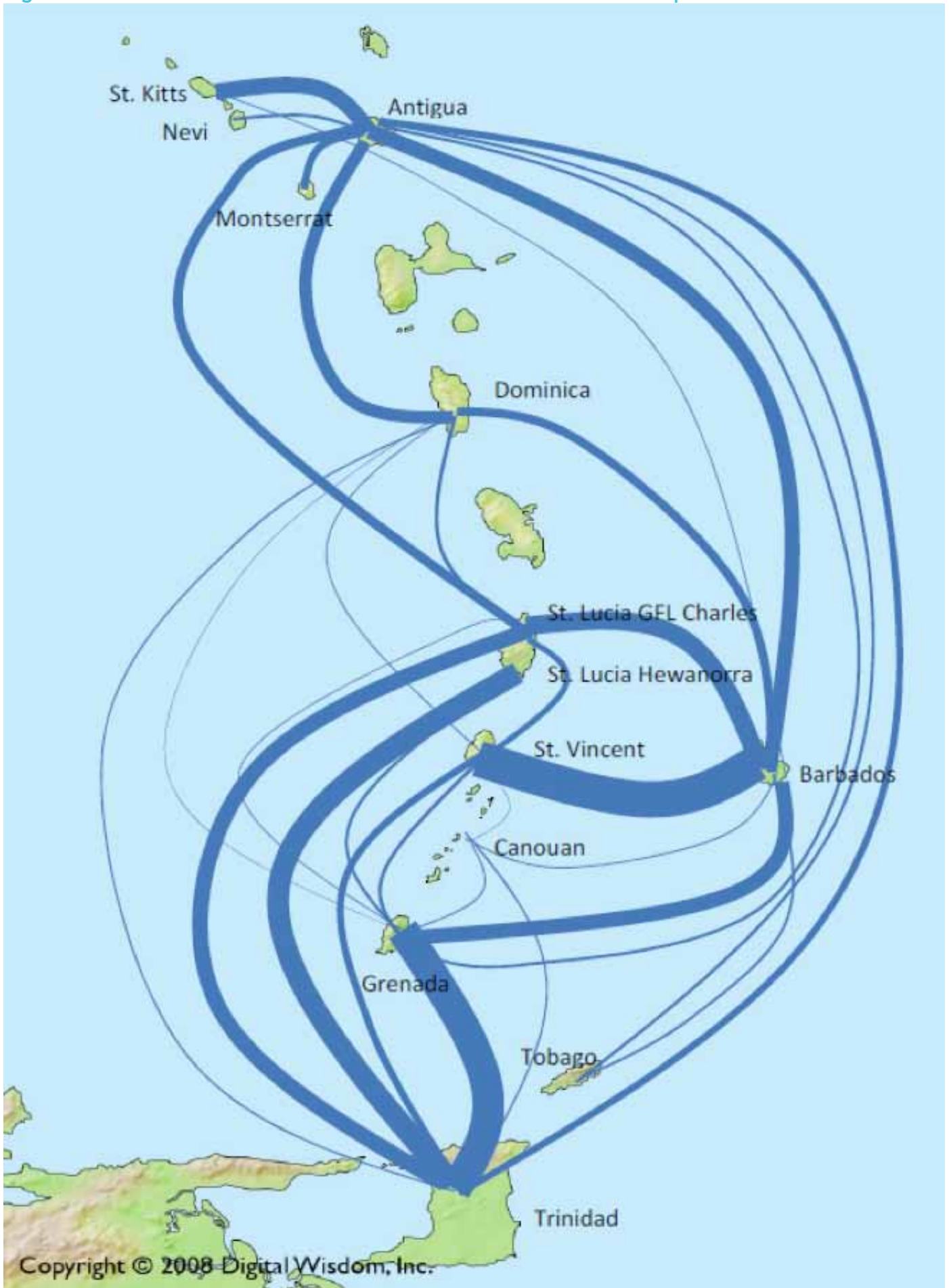
OECS islands are increasingly locking themselves in over-dimensioned infrastructure investments to bypass a dysfunctional inter-island system. St. Vincent is building a brand new greenfield airport with a 9,000 foot runway and a 1.4 million passenger annual capacity terminal hoping to support its tourism development in the longer term. The expected opening will be in 2014, with the majority of the earthworks already completed. Dominica is also considering options for a new airport or extending its main runway into the ocean. Additional infrastructure investments to increase terminal capacity also took place. Both Grenada and St. Lucia have considerable excess capacity in their terminals (with utilization rates below 50 percent), significantly raising their overheads. St. Vincent had less than 200,000 passengers in 2012, yet the new terminal being built will have a capacity of 1.4 million passengers.

This 'decentralized' investment decision making process is creating a public sector conundrum: to unlock the tourism sector, OECS countries need reliable air connectivity with the rest of the world that in the absence of a reliable inter-island

system --for now dominated by a monopoly that has reached capacity– leads countries to think individually and invest by themselves in expensive infrastructure that could otherwise be designed more efficiently with a regional dimension in mind. Moreover, once a country has locked-in expensive long-life assets such as airports, ensuring that tourism, as the key engine of the economy, takes off becomes even more critical in order to guarantee the economic returns of such investments. This situation creates additional incentives for OECS countries to engage in interventions that aim to secure each individual country a minimum flow of tourists. Bilateral agreements and subsidies to airliners, in particular, have become a common practice.

Aiming to support a sector that is essential for their economies and develop a secure flow of tourist, some of the OECS countries provide subsidies to air transportation. Throughout the Caribbean, even in highly successful resort destinations such as Jamaica, major airlines negotiate with island governments agreements that protect them in the case of a downturn. The agreements are generally of two types: Marketing Support Agreements (MSA) and Minimum Revenue Guarantees (MRGs). In MSAs a country makes funds available to an airline for marketing purposes. In the case of MRGs, a government guarantees that if a specified load factor or volume over a given period is not achieved it will pay up (i.e. "take delivery") the unwanted capacity being provided. In 2012 the net fiscal effect of these agreements amounts to between 0.12 and 0.2 percent of GDP, or close to 0.6-1 percent of tax revenues, and 0.1-0.3 percent of public debt. Individual ministries see these agreements as expensive items on their budgets. Also, the overall question can be raised as to who is really paying for these benefits, which are ultimately an indirect subsidy to the hotel industry that captures stay-over visitors. Since funding for most of these agreements comes from overall tax revenues, the agreements are financed with funds outside the tourism sector that could arguably be allocated to other uses including education, health or any other social cause.

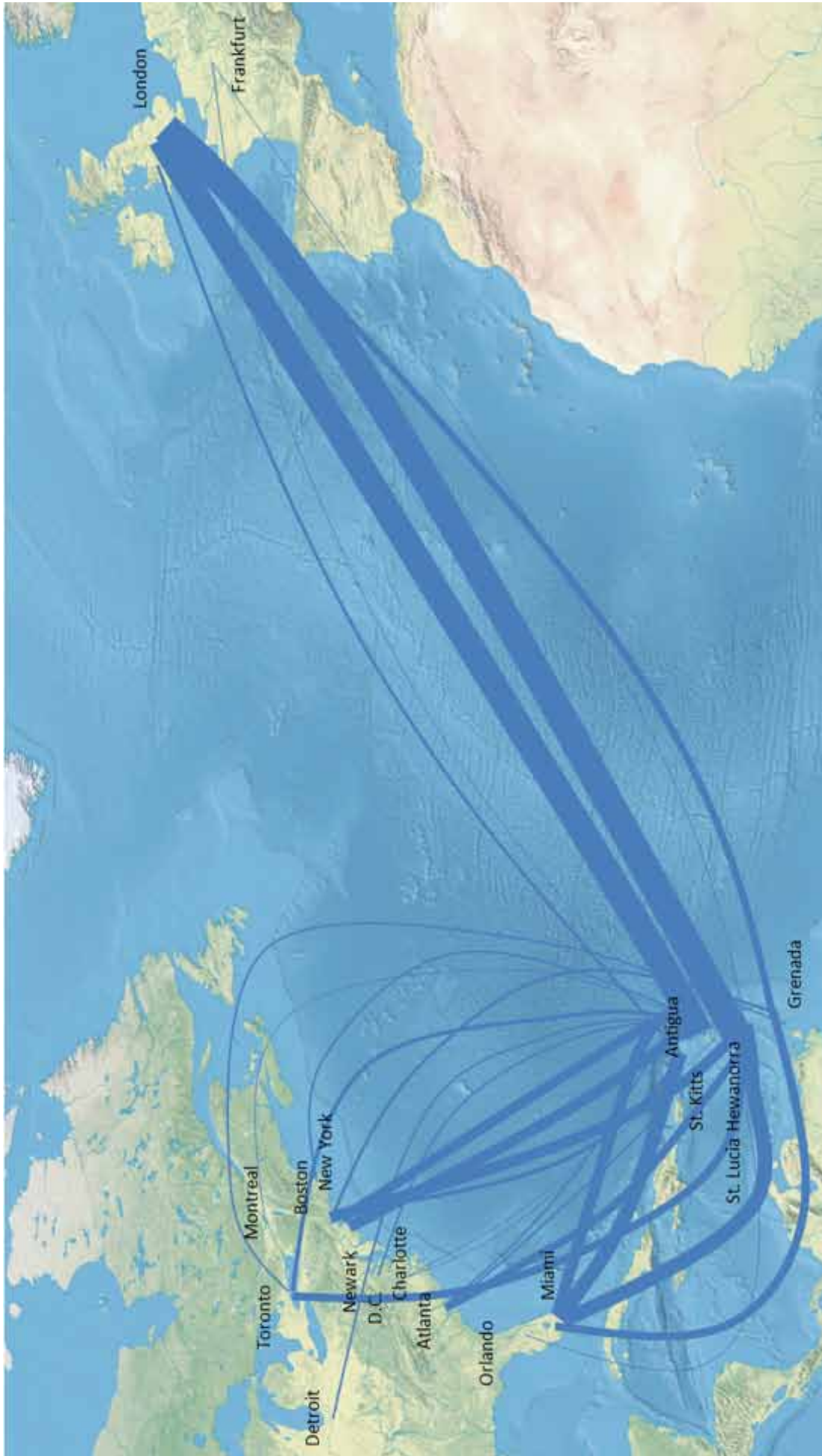
Figure 2: Traffic between the OECS islands in 2012 as measured in seat capacities.



Source: Author's calculations based on data from Diio.

Note: The thickness of the lines represents the relative size of the route in seats compared to the others. Antigua, Barbados, and Trinidad serve as hubs. The thickness of the lines represents the overall relative seat capacity).

Figure 3: The international routes in 2012 for the OECS



Source: Author's calculations based on data from Diio.
Note: Thickness of the lines representing the relative capacity in seats

Conclusions

The OECS has a high concentration of international airports within short distances. Most of the islands are receiving international tourists directly from their countries of origin instead of building a hub-and-spoke system that would optimize the regional investment in expensive air transport infrastructure. The individual as opposed to coordinated decision making not only makes infrastructure investment more expensive and inefficient for the region but also creates enormous pressures for each government to secure a share of the tourist market individually. To neutralize the unpredictability of those tourism streams, and therefore of the load factors on the aircraft delivering the service, OECS countries have entered into individualized agreements with airlines in order to ensure connectivity. The cost of these agreements can be up to 1 percent of the GDP, but the political tag is significantly higher as subsidies are perceived as unnecessary and expensive items in the budget. Moreover, the negotiation of these agreements raises the question of how much the OECS could gain by acting as one block in negotiating with

airlines. It also underscores the importance of establishing a more efficient hub-and-spokes system for treating tourist arrivals. A system of two hubs, one in the north (Jamaica perhaps) and one in the south (Barbados or Trinidad), was suggested as a possible solution in recent meetings with the Caribbean Hotel and Tourism Association. This would pool most arriving passengers into more sustainable load factors from long-haul flights, and could also create the density needed to make the inter-island transport system more sustainable, with benefits spilling over beyond tourism per se. A hub system would most likely provide more flexibility in matching supply with demand during high as well as low season, when inter-island business and Government travel drive the demand. Coordination is not an easy feat, but if the OECS wants to go forward with a regional policy it will be necessary for the islands to see themselves less in competition with one another, and more in need for cooperation in overcoming the small size of their economies and their isolation. It is time for OECS countries to stop flying solo.



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