THE VALUE OF AIR TRANSPORT IN CUBA

CHALLENGES AND OPPORTUNITIES FOR THE FUTURE

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Aviation is a very important enabler of economic and social development. According to figures published by the World Travel & Tourism Council, the travel and tourism sector contributed CUC 9.7 billion in 2017, equivalent to 10.7% of Cuba’s GDP for the same year and generated more than 500,000 jobs in the country. Figures reported by the United Nations World Tourism Organization indicate that the vast majority of international visitors to Cuba arrived by air, highlighting the importance of aviation to the country’s economy.

Air connectivity supports tourism and facilitates trade, as well as promotes the exchange of knowledge and ideas and brings families and friends closer together. Air connectivity supports economic development, increases destination attractiveness, improves efficiency and promotes innovation.

The aviation market in Cuba has great potential to grow more, particularly in terms of diversifying direct international connections. However, to achieve this it is essential to enhance and modernize a number of key aspects of the country’s air transport sector. While Cuba’s aviation sector faces many challenges, three topics emerge as particular priorities:

- Modernizing and enhancing airport and air traffic management (ATM) infrastructure
- Improving the efficiency of the operating environment
- Regulatory harmonization in line with global standards and best practices

If Cuba is able to address these issues, which currently limit the potential as an aviation market, the rewards could be significant. With demand set to double over the next 20 years, the economic contribution of aviation to the Cuban economy could increase to more than CUC 34 billion per year with more than 900,000 jobs supported.
THE MAGIC OF AVIATION

The air transport sector makes a major contribution to the Cuban economy and society, creating jobs and stimulating economic and social activity. This is of vital importance to an island which relies on aviation to attract its visitors.

These figures below demonstrate that the benefits of air transport in Cuba go far beyond the narrow confines of the sector itself and indeed many of those who gain from Cuba’s air connectivity may not yet be regular travelers themselves.

Figure 1: The contribution of Travel and Tourism to Cuban employment and GDP

<table>
<thead>
<tr>
<th>JOBS (Thousands)</th>
<th>GDP (CUC Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>124</td>
</tr>
<tr>
<td>Indirect</td>
<td>265</td>
</tr>
<tr>
<td>Induced</td>
<td>125</td>
</tr>
</tbody>
</table>

Source: WTTC

All these benefits will be reinforced and magnified if Cuba is able to modernize and enhance its infrastructure as well as the operating and regulatory environment, based on global standards and best practices.
THE IMPORTANCE OF AIR CONNECTIVITY

Air Connectivity is a measure of the potential to deliver economic and social benefits. The more a country is connected by air, the more its citizens will be able to enjoy the opportunities that air transport makes possible.

**Figure 2** shows that, despite falling back slightly between 2017 and 2018, the number of air passengers more than doubled between 2009 and 2018.

**Figure 2: Growth in Air Passengers (2009-2018)**

![Graph showing growth in air passengers from 2009 to 2018](image)

*Source: IATA Economics based on PaxIS*

As **Figure 3** illustrates, in the case of Cuba, in addition to a sizeable domestic network, most of the direct services connect Cuba with points in Europe. Despite greater proximity, connectivity with both North and South America is much less developed.
How to measure connectivity?

Air connectivity has many dimensions including: the number of routes, the frequency of service, the number of seats available and the importance of the destinations. For indirect connections, the length of the connection and the degree of deviation from a direct routing are also important as they affect total journey time.

There are three main types of air connectivity: direct, indirect and hub connectivity. Each is set out below:

i. **Direct connectivity**: Reflects the direct air services available from a city or country. It can be measured not only in terms of the number or economic importance of the destinations, but also in terms of frequency. For example, a city with five daily flights to another city would register a score higher than one with only four daily flights;

ii. **Indirect connectivity**: Measures the number of destinations to which you can fly, through connecting flights at hub airports. For example, for a flight between Havana and Panama City, the large number of connections available from Panama City expands the range of international destinations available to passengers from Havana. Indirect connections can be weighted according to their quality, depending on the connection time and related deviation. In this last aspect, an itinerary from Havana to
Santiago through Panama will be considered better than an alternative route through Bogota if the overall travel time is shorter;

iii. **Hub connectivity**: For a hub airport, this reflects the number of connecting flights that can be provided by the airport taking into account the minimum and maximum connection times. Along the same lines as for indirect connectivity, the connections at the hub can be weighted according to their quality in terms of the deviation involved and the connection times.

Based on the above, IATA has developed a connectivity indicator to measure countries’ level of integration within the global air transport network. It is a qualitative measure based on: the number of destinations served and their economic importance; the frequency of service to each destination and the number of forward connections available from each destination. The connectivity measure rises with an increase in the number of destinations served, the frequency of services and / or destinations to larger hub airports.

By way of illustration, Figure 4 shows how Cuba’s connectivity has evolved in the last five years relative to a selection of other Caribbean states. The chart confirms that air connectivity in Cuba grew faster than any other country in the region in the period from 2013 to 2018.

**Figure 4: Air Connectivity in Cuba, 2018 vs 2013 (selected countries)**

![Chart showing air connectivity in Cuba, 2018 vs 2013](chart)

*Source: IATA Economics*

The level of connectivity depends, to some extent, on the size of a country’s economy and the number and size of the companies served by its air transport sector. Naturally, larger economies are connected to more destinations and have more seats available, but quantity is not necessarily a measure of quality. Therefore, another key measure that must be examined is the level of connectivity relative to the Gross Domestic Product (GDP) in terms of its relation
to productivity and economic growth. Using this definition, Cuba ranks behind its peers in the region, especially when compared to other tourist destinations. This highlights the considerable potential for Cuba to continue to develop its aviation sector and air connectivity.

Figure 5: GDP-adjusted Air Connectivity (selected countries)

![GDP-adjusted Air Connectivity Chart]

Source: IATA Economics

Connectivity can also be measured at the intra-regional as well as the global level, as shown in Figure 6 comparing global connectivity with connectivity within the Caribbean region. Unlike all the comparator markets, with the exceptions of Costa Rica and Dominican Republic, Cuba has relatively well-developed connectivity with the rest of Latin America, suggesting that it its attractiveness as a destination is more broad-based than some Caribbean countries.

Figure 6: Global vs Intra-regional Connectivity (selected countries)

![Global vs Intra-regional Connectivity Chart]

Source: IATA Economics
Demand for air travel to, from and within Cuba is forecast to more than double over the next 20 years. However, for this to happen requires a supportive regulatory policy and operating environment that facilitates travel and enables airlines to offer ever greater choice and value to Cuban travelers and businesses, as well as visitors to the island.

Examples of favorable policies that would address the challenges identified in this report and enable Cuba to achieve its full growth potential include: Measures to modernize airport and air traffic management infrastructure; regulatory harmonization with global best practices, in particular with regard to airport slots; and operational efficiency improvements to make better use of existing infrastructure and reduce congestion and delays.

Figure 7: Demand growth under alternative policy scenarios (2018-38)

This growth in demand would not only benefit the aviation sector in Cuba. Stimulating traffic and allowing national and international connectivity to reach its full potential would also provide a great boost to the country’s economy and its competitiveness, as well as making air transport more accessible to an even greater share of Cuban citizens.
Figure 8 shows that the economic impact of addressing the competitiveness challenges in order to create a favorable operating and regulatory environment; the total number of jobs supported by aviation could grow to more than 900,000 by 2038 and the annual contribution to GDP up to CUC 34 billion.

Figure 8: Potential value of air transport with favorable policies

<table>
<thead>
<tr>
<th></th>
<th>Passengers</th>
<th>GDP (CUC)</th>
<th>Jobs</th>
</tr>
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<tbody>
<tr>
<td>2018 Actual</td>
<td>9,1 m</td>
<td>9.710,2 m</td>
<td>513.000</td>
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<td>Trends</td>
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<tr>
<td>Optimistic</td>
<td>24,4 m</td>
<td>25.988,8 m</td>
<td>697.171</td>
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<td>Scenario</td>
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<td>34.060,0 m</td>
<td>922.187</td>
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<tr>
<td>Pessimistic</td>
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<td>21.602,1 m</td>
<td>575.797</td>
</tr>
<tr>
<td>Scenario</td>
<td></td>
<td></td>
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</tbody>
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Source: IATA Economics