Despite more than five decades of experiments, the viability of long-haul low-cost carrier service is still uncertain.

In the 1960s and 1970s, Loftleidir, known internationally as Icelandic Airlines, pioneered a low-cost carrier business strategy on flights between Europe and New York’s John F. Kennedy International Airport (then known as Idlewild Airport). Because Icelandic Airlines had not joined the International Air Transport Association, which then defined the fares for member airlines on transatlantic routes, it could offer considerably lower ticket prices. In addition, Icelandic’s transatlantic flights included an intermediate stop at its home airport at Reykjavík, which resulted in lower operating costs because of easier aircraft and crew logistics compared to its European or American competitors. During these years, Icelandic Airlines was often referred to as “the Hippie Airline” for its popularity among U.S. college students as an affordable means of travel to Europe. In 1973, in response to increasing competition and the economic impact of the 1970s energy crisis, Icelandic Airlines merged with Air Iceland to form Icelandair.

In 1977, Laker Airways launched “Skytrain,” its long-haul low-cost carrier service between London Gatwick Airport and New York’s John F. Kennedy International Airport. Although Skytrain was successful in its first year, Laker Airways declared bankruptcy in 1982 after rapid expansion and acquisition of a new aircraft fleet overextended the airline’s finances. Other low-cost carriers—People Express in the 1980s and Oasis Hong Kong Airlines in the 2000s—also experimented with long-haul service and declared bankruptcy.

Today, low-cost carriers (LCCs) again are testing the viability of long-haul service; they include AirAsia X, Jetstar Airways, and Norwegian Air Shuttle. In addition, network airlines are establishing new low-cost subsidiaries such as Singapore Airlines’ “Scoot,” Air Canada’s “Rouge,” and Lufthansa’s proposed “Jump.” Air travel has changed since Icelandic Airlines’ transatlantic flights in the 1960s and 1970s and Skytrain’s inaugural flight in 1977. This focus piece considers whether newer industry features like online airline reservation systems, more fuel-efficient aircraft, densification of cabin seating, high utilization of aircraft, and ancillary fees for baggage and in-flight services are enough to overcome the challenges of long-haul low-cost service.
Operational and cost advantages derive from the long-haul routes. Although the belly capacity of widebody aircraft provides an additional revenue source, an all-economy LCC configuration would likely increase the number of passenger bags on long-haul routes and reduce available cargo capacity and potential revenue.

A Rite of Passage

The transition from short-haul adolescence to viable long-haul service may test the tenacity of low-cost carriers.

Since 2000, the number of scheduled seats on the world’s LCCs has tripled, increasing an average of nearly 9% per year between 2000 and 2014. In the United States, the number of LCC seats increased an average of 2% per year during that period, reflecting the maturity of the U.S. LCC market. In contrast, LCC service in Europe and Asia averaged increases of 15% and 17% per year, respectively.

The LCC business model was built on a foundation of short-haul markets which provides cost advantages such as short turn-around times and high utilization of crew and aircraft, service to secondary airports with lower costs than primary airports, and limited in-flight food and entertainment. The average segment length of LCC flights is typically less than 500 nautical miles during the first few years of service and increases as the LCC network develops.

For example, the average segment length of Southwest Airlines, a successful pioneer of the LCC model in the United States, increased from less than 300 nautical miles in 1982 to more than 600 nautical miles in 2014. Similarly, the average segment length of Ryanair, an Ireland-based LCC, increased from about 300 to nearly 700 nautical miles from 2000 to 2014. In Asia and Oceania, LCC subsidiaries such as AirAsia X and Jetstar Airways have longer average segment lengths—2,500 and 850 nautical miles, respectively—reflecting the operation of short-haul routes by their parent companies (AirAsia and Qantas).

With decades of short-haul experience, LCCs are diversifying their networks by serving selected long-haul markets. Although long-haul routes (3,000 nautical miles or more) account for a small share of LCC seats (1% in 2014), the number of LCC seats on long-haul flights doubled between 2000 and 2014, increasing an average of nearly 6% per year.

LCC Cost Advantages Shrink on Long-Haul Routes

All airlines face higher costs on long-haul routes. The cost advantages that LCCs realize on short-haul routes are difficult to achieve on long-haul flights. In particular:

- Operational and cost advantages derive from the quick turnaround times typical of short-haul LCC routes, but longer ground times are needed for aircraft servicing and refueling on long-haul routes.

Going Farther for Less

Fuel-efficient aircraft are important for the profitable operation of long-haul routes.

In the past, the failure of long-haul LCC service has been related, in part, to the types of aircraft used and their associated costs. For example, during its first two years of operation in 2005 and 2006, Oasis Hong Kong Airlines operated Boeing 747-400 aircraft on routes from Hong Kong to London Gatwick and Vancouver with profitable results and load factors averaging 85%. But in response to increasing competition on the Hong Kong–London route and a customer preference for Heathrow over Gatwick, Oasis offered airfares...

Aircraft fuel efficiency can make or break a long-haul route

![Image](image-url)

Note: Data are for U.S. airlines in 2013.

that did not meet its costs. As a result, Oasis suffered heavy losses and ceased operations in early 2008. The use of the Boeing 747-400, which consumes more than twice as much fuel per block hour as the Boeing 787-8, contributed to the demise of Oasis.

“[The Boeing 747-400 is] quite expensive to operate—unless you can fill it.”

Today, the Boeing 787-8 is an aircraft of choice for long-haul LCC routes, with the lowest fuel consumption per block hour among all widebodies. Norwegian Air Shuttle uses its fleet of seven Boeing 787-8 aircraft (with delivery of one more expected in 2015) to operate long-haul service from its bases at Copenhagen, London Gatwick, Oslo, and Stockholm to Bangkok and five U.S. cities (Fort Lauderdale, Los Angeles, Oakland, Orlando, and New York).

The fuel efficiency graph on the preceding page includes a comparison of fuel consumption per block hour per seat, based on current seating configurations, and shows the differences among widebody aircraft much reduced. The A330 has the lowest fuel consumption per block hour per seat and is the preferred long-haul aircraft for LCCs such as AirAsia X. Jetstar Airways uses both the A330-200 and the B787-8. AirAsia X and Jetstar operate within Asia and Oceania, offering long-haul service from their hubs at Kuala Lumpur and Melbourne, respectively.

Fuel costs account for 28% of total airline costs on average, according to Airlines for America, the trade association for U.S. airlines. On long-haul routes, fuel accounts for a much larger share of costs—from 60% to more than 70%, depending on the aircraft type.

Higher seating density (more seats per aircraft) gives LCCs some advantage on short-haul routes. But for long-haul flights, most airlines already have high-density cabins and, therefore, have comparable ability to drive airfares down to marginal costs.

**Being a Big Fish in a Long-Haul Pond**

Selecting strategic routes for long-haul low-cost operations is important.

Network airlines account for 97% of scheduled departing seats on long-haul flights during the 12 months ending June 2015, with LCCs accounting for the remaining 3%. Network airlines dominate the 10 busiest long-haul routes in the world, with LCCs competing on 4 of the 10. The competitive response by network airlines to the introduction of LCC service on a long-haul route could impact an LCC’s success, particularly if the route is characterized by a large number of business travelers and frequent flyers who are accustomed to a certain level of service. The demise of Laker Airways has been attributed in part to predatory pricing and other competitive responses by the airlines that served the same routes.

Today’s LCCs have learned from those past failures the importance of choosing long-haul routes carefully. Excluding its London routes, Norwegian Air Shuttle’s strategy is to test markets with little network airline competition, particularly from its base of operations at Oslo where the airline feeds its long-haul low-cost routes with its narrowbody service from the rest of Norway and other parts of Europe.

Network airlines dominate the busiest long-haul routes

<table>
<thead>
<tr>
<th>Route Description</th>
<th>Scheduled departing seats (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>London-New York</td>
<td>2.5</td>
</tr>
<tr>
<td>Paris-New York</td>
<td>2.3</td>
</tr>
<tr>
<td>Honolulu-Tokyo</td>
<td>2.0</td>
</tr>
<tr>
<td>London-Los Angeles</td>
<td>1.6</td>
</tr>
<tr>
<td>Singapore-Sydney</td>
<td>1.5</td>
</tr>
<tr>
<td>London-Hong Kong</td>
<td>1.2</td>
</tr>
<tr>
<td>Singapore-Melbourne</td>
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</tr>
<tr>
<td>London-Singapore</td>
<td>1.0</td>
</tr>
<tr>
<td>London-Chicago</td>
<td>0.9</td>
</tr>
<tr>
<td>Dubai-Singapore</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Note: Data are for the 12 months ending June 2015. LCC classification is based on ICAO’s list and definitions available at www.icao.int. Long-haul is defined as flights of 3,000 nautical miles or more. Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed January 2015.

Norwegian Air Shuttle faces no competition on 10 of its 16 long-haul routes from bases in Copenhagen, Oslo, and Stockholm. One to three flights per week are offered on each route in order to maximize load factors and the utilization of its Boeing 787-8 aircraft. Previous attempts by LCCs such as Laker Airways and Hong Kong Oasis Airlines failed because of an inability to maintain high load factors during off-peak seasons and feed their long-haul low-cost flights.

AirAsia X and Jetstar Airways represent a new breed of LCCs that are subsidiaries of parent airlines. AirAsia X operates only widebody aircraft on long-haul flights, particularly to large markets, while Jetstar flies both narrowbody (Airbus 320) and widebody aircraft. AirAsia X competes on four of its five long-haul routes, but benefits from the short-and-medium-haul feed provided by its parent, AirAsia. Because operations of LCC subsidiaries such as AirAsia X and Jetstar are reported with the parent company’s financial statements, it is difficult to evaluate the profitability of their long-haul low-cost routes.

**If the Price Is Right**

Although LCCs use an all-economy configuration on short-haul flights, long-haul routes require a different approach.

LCCs are following the example of network airlines in pricing their long-haul product. Norwegian Air Shuttle uses a two-class configuration on its 291-seat Boeing 787-8 aircraft (32 premium, 259 economy), compared with United Airlines’ three-class configuration on its 219-seat Boeing 787-8s (36 first/business, 70 economy plus, 113 economy). Offering premium seats gives LCCs enhanced revenue potential that could help ensure the viability of long-haul routes.

Air Canada’s “Rouge” and Singapore Airlines’ “Scoot” offer low cost no frills service to many leisure dominated markets.
New fuel-efficient aircraft, access to existing carrier networks for connecting flights, and routes linking major cities in the world’s fastest-growing economies are three new ingredients that now might make long-haul low-cost service viable.

The management strategies and technology available to airlines today have improved greatly since the demise of Laker Airways in 1982 and even since that of Hong Kong Oasis Airlines, which succumbed to the fuel price spike in 2008. But there also are now more than 100 LCCs operating throughout the world, including 45 in Asia and Oceania, 35 in Europe, and 11 in North America. The overall number of airlines and seats may exceed passenger demand in certain regions.

If successful, long-haul LCC service could result in the development of new international service at secondary airports and contribute to continued growth in international passenger traffic around the world. At the same time, network airlines are applying lessons learned from LCCs, which may make long-haul routes more competitive by such means as more fuel-efficient aircraft with high-density cabins and dedicated aircraft to serve leisure-dominated markets.

For airport operators, the challenge will be to accommodate new aircraft like the Boeing 787-8 and maintain flexibility in airport operations for potential new long-haul LCC service.