There are two key attractions of infrastructure assets – the first being that their revenues are inflation proofed and the second that high barriers to entry reduce competitive price pressures. This article evaluates that proposition in the context of airports, one of the darlings of the infrastructure investment world. For reasons of data availability, this article focuses on the UK.

So, how have airport revenues stood up to the inflation test? Here, we are interested in the development of "airport charges" – the bundle of tariffs that airlines pay to access airport infrastructure. A first point is that we are more concerned with "yields" (i.e., revenue from airport charges divided by passengers) than prices here. Whereas airport tariffs (usually in the airport's "Conditions of Use") continue to appear on UK airport websites, those documents are increasingly a dead letter as airlines agree to off-menu, five- or ten-year deals, at least for regional airports. In this context, "yields" provide a more accurate indication of the extent of airport's inflation proofing.
The Low Cost Carriers (LCC) Squeeze on Airport Revenues

From the beginning of the millennium to 2005 there was a sharp decline – a near halving of yields.

**EXHIBIT 1. AERONAUTICAL REVENUE PER PASSENGER AT A SELECTION OF UK REGIONAL AIRPORTS 2000-2005, £ REAL**

![Graph showing a decline in aeronautical revenue per passenger from 2000 to 2005.](image)

Source: LeighFisher UK Airport Performance Indicators

Overall, airport charges yields reduced significantly for these airports in real terms.

It does not take much analysis to understand the chief reason for this decline — for the most part it can be attributed to the rise of LCC. The LCC sector has revived many UK regional airports, and led to high traffic growth rates over a sustained period, but as a corollary airports have found themselves on the wrong end of a highly aggressive approach to negotiation of airport charges. Aside from the negotiation skills of the airlines themselves, for the first time UK regional airports found that they apparently did not command regional monopolies. Operating in a world where a low-cost airline was not weighing up whether to locate aircraft in say Bristol or Birmingham, but rather Luton or Larnaca, airport charges plummeted. But while traffic growth rates were high and unused airport capacity abounded, all parties were happy.

**Trend Reversal?**

As the LCC revolution matured it might have been anticipated that this pattern would go into reverse, particularly as airports needed to finance new capital investment to expand. Additionally, more LCCs came to subscribe to the theory that airports located in major centers of population commanded a premium over remote airbases (Brussels not Charleroi for example) and it could have been expected that airport operators would be able to exploit that pricing power. However, it did not really turn out like that.
Which Way Are Airport Charges Heading?

EXHIBIT 2. AERONAUTICAL REVENUE PER PASSENGER AT A SELECTION OF UK REGIONAL AIRPORTS 2000-2015, £ REAL

Similarly, in 2005, Chinese access to North America was focused on large hub airports. There were 12 routes between China and North America, the majority flying between the major hubs in each region (e.g., Beijing and Shanghai to Los Angeles, San Francisco, Chicago, New York, and Toronto). Since then, 27 new routes have opened up—all of which are operated by Boeing 787s. Of these 11 new services, only two are connecting hub-to-hub airports.

The most favorable interpretation of Exhibit 2 is that the period since LCC maturity (2005) has brought stability to airport yields, with some slight falling off in the last couple of years. However, yields are still at around only 65% of their 2000 real terms level. Over this same period there has been arguably no major capacity added at most UK airports (no runways, no significant terminal additions, although some incremental facilities) so this has occurred in the context of a tightening of supply.

Is This a Changing Traffic Mix Issue?

One objection to this analysis is that there have been traffic mix changes that have had the effect of diluting yields. Structures for airport charges are typically established on the basis that domestic traffic attracts lower charges (and also provides lower levels of commercial revenue) than international. So, if domestic had grown faster over this period, that might provide an explanation. But in fact, the reverse has happened, with the near disappearance of UK domestic air travel outside London to Glasgow and Edinburgh. Higher yielding international traffic has actually grown more strongly, so all things being equal, strengthening yields could have been expected.

Apparently and paradoxically, the trend throughout the period of aeronautical yields at airports subject to the strictures of hardline single till regulation (Heathrow and Gatwick) is very different. Yields have increased at those airports. In the case of Heathrow at least, a major determinant of this trend is the high rate of capital expenditure over the period on projects including T5 and T1/2.
Do Low Yields Undermine Airports' Infrastructure Characteristics?

So why have non-regulated airports not succeeded in restoring previous levels of yields? One answer is that operating relatively fixed cost businesses where commercial revenue has increased alongside passenger numbers, airport owners have maintained profitability while yields have fallen.

But where airports have not maintained returns, is this simply the product of a competitive market? As argued above, do airlines increasingly treat all airports within the EU, say, as interchangeable bases to operate from where the only issue is the maximization of airfare yields? If so, this conclusion would tend to undermine airports' claims to be "infrastructure" where there are high barriers to entry.

Our sense is that this bleak conclusion is an over-simplification. Although the concept of airports operating as monopolies within a catchment area has been somewhat undermined by the LCC revolution, a more important factor could be that airport owners have not always been brave enough in seeking deals which fully reflect their locational advantage. They have found themselves locked into long-term deals where other parts of the value chain are the beneficiary, perhaps underestimating their negotiating power.

What Next for Airport Charges?

We believe that barriers to entry will increasingly reassert themselves in a constrained planning environment, which increases capacity scarcity and thus airport owners should find themselves in a market where their negotiating position is enhanced. Additionally, the convergence between LCCs and "Legacy Carriers" should ultimately mitigate the desire of airlines to go to the cheapest supplier of airport capacity disregarding all other factors.

ICF can help airports realize the value of their infrastructure by assisting in the process of negotiating airport charges, structuring charges appropriately, and understanding the competitive and market dynamics airports operate in.
About the Authors

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