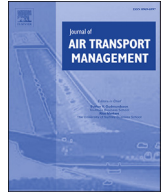




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## Airport competition in Europe

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### ABSTRACT

This paper analyses the development in competitive constraints faced by European airports resulting from the wide-ranging changes to the European aviation market over the last twenty years, encompassing deregulation of airline markets and more cost focused airline business models. We argue that the flexibility and choices now available to airlines constrain the commercial behavior of airports. The main change driving these competitive constraints is that the wealth of opportunities available to airlines have made them more footloose. In addition to this, passengers have more choice available to them, and airports are actively responding to market changes. The result is that airports now largely have to compete with one another to retain and attract traffic. The marked development of airport competition in Europe leads us to recommend that policy makers use a more case-by-case approach to economic regulation of airports. In particular, market power should be established, not assumed.

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### 1. Introduction

Airports are normally thought of as something akin to a natural monopoly. This paper will discuss how the changes to the European aviation market over the past 20 years have affected the competitive pressures on European airports. The point of departure is the research project Airport Competition in Europe commissioned by ACI EUROPE (Copenhagen Economics, 2012). The ACI research project (hereafter ‘the study’) provided an evidence-based assessment of the nature of competition between European airports, the competitive constraints upon them, and the development of such competition and constraints over time.

There is no doubt that the European aviation market has seen dramatic change over the past 20 years. Twenty years ago, European airports still operated in an environment where, with few exceptions, national and state-owned airlines were strictly regulated and had limited freedom to compete across borders. Much has changed since then. The liberalisation and extension of the European aviation market stands out as one of the clearest success stories of the single European market (see EU Commission, 2012 for a detailed description). New airline business models have developed, while airports have become more commercially focused and are often privately owned or run at arms-length from government

(Bush and Starkie, 2014). Furthermore, the Schengen Convention has ensured free movement of people. The Convention led to an abolition of internal border controls and a common visa policy, and as a result the Schengen area operates much like a single state for international travel purposes with no internal border controls.<sup>1</sup>

These market changes have affected the environment within which airports operate. We are interested in analysing the extent to which airports in general still hold significant market power. Airports are two-sided markets that bring together (and make revenue from) airlines on one side and passengers on the other. As a result, the extent of airport market power depends on the ability and willingness of airlines and passengers to switch to other airports, and this particular feature complicates the standard competitive assessment since the joint constraints on the airport coming from both sides of the market need to be assessed (see e.g. Evans, 2002).

A business is said to have significant market power when it can profitably raise and maintain prices above the level that would prevail in a competitive market.<sup>2</sup> The assessment of market power is therefore an assessment of the sensitivity of consumers to

<sup>1</sup> Because of the Schengen cooperation, the situation in Europe differs from, for example, the situation in Asia. Without an agreement such as Schengen, political immigration processes change the dynamic of point-to-point traffic. For example, Hong Kong and Shenzhen are only a commuter train apart, but they are difficult to use as substitutes for both airlines and passengers.

<sup>2</sup> Formally, in order to identify market power, the European Commission (2009) requires that “the undertaking’s decisions be largely insensitive to the actions and reactions of competitors, customers and, ultimately, consumers”.

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changes in price or quality. To evaluate whether a particular firm has significant market power, it is typically asked whether, in the absence of regulation, the firm could profitably increase its price by 5–10%.<sup>3</sup> With sufficient competitive pressures in place, a hypothetical price increase would be followed by a sufficient drop in demand to make the price increase unprofitable. Consequently, prices are kept in check by the forces of competition. The substitutability of airlines and passengers is key. For competition to play out, it will *not* require that every passenger and every airline has a choice, but only that a sufficient amount of airline business and passenger demand is footloose and willing to switch away if prices or qualities are not competitive. So competition can be sufficiently strong even if some airlines and some passengers are 'locked in'. Standard competition policy guidelines and best practice suggest that the focus of substitutability analysis must be on marginal customers. The presence of some groups of non-marginal airlines or passengers that have a strong preference for the airport in question is irrelevant to the examination of market definition and market power.

In order to analyse airport market power, we therefore have to analyse the competitive pressures on airports arising from the ability and willingness of airlines to switch, the amount of choice available to passengers, and the airports' responses to these changes.

We have identified five main sources of competitive constraint on airports:

- Ability and willingness of point-to-point airlines to switch
- Ability and willingness of network carriers to switch
- Airline buyer power
- Ability and willingness of local departing passengers to switch
- Ability and willingness of transfer passengers to switch

To analyse the development in these possible sources of competitive constraint, we have used a wide range of empirical data: OAG data for airline capacity for all airlines operating at European airports between 2002 and 2011; the SEO Netcost catchment area model, which calculates generalised travel cost in a passenger choice model; and the SEO Netscan connectivity model, which calculates the number and quality of connections from/to and via the 16 largest European airports.

The paper is structured as follows: Section 1 deals with the airline side of the market and describes how airlines have become increasingly footloose over the past 20 years. Section 2 is devoted to the passenger side; more precisely, the development in the choice available to passengers and how this choice is exercised. Section 3 describes how airports have responded to these changes. Finally, section 4 concludes.

## 2. Airlines have become more footloose

The liberalisation of the European aviation market has created numerous opportunities for European airlines, and the wealth of opportunities has made them more footloose. In other words, with an open market airlines have the option of *switching* capacity between airports. Switching can occur as a change in seat capacity offered on a given route (the airline can change the aircraft type or the frequency of service) or as closing of existing routes and

opening of new routes.

An *airline switching analysis* investigates how airlines are real-locating their capacity to different routes. This analysis provides an assessment of entry and exit at route level. When switching is observed, the important question is whether it actually affects airports. If capacity is immediately replaced by other airlines, the switching will not have any (significant) effect on the airport. If, on the other hand, the capacity is not readily replaced - or is not replaced to the same extent or quality as before - then the switching has a harmful effect, and consequently a disciplining effect, on the airport.

Below, we analyse ability and willingness to switch, firstly for point-to-point carriers and then for hub carriers. Subsequently, we investigate whether and, if so, how the switching affects airports.

### 2.1. Point-to-point carriers

Point-to-point carriers tend to be cost-focused and not operating a hub-and-spoke model. Such airlines are typically more active in changing their route network in response to changing profit opportunities. Indeed, these carriers' business models are characterised by a flexible disposition of their assets, which is highlighted in the following quote from easyJet's annual report 2009 (easyJet, 2009):

*"Base location is constantly under review. For example, we have increased the number of aircraft based in Italy from 3 to 16 since 2006 and in France from 11 to 14 in the last 12 months. At the same time, we have reduced capacity at under-performing bases such as Luton."<sup>4</sup>*

The switching analysis showed that an increasing number of routes are opened and closed every year, and a large share of this is due to point-to-point carriers. This highlights the degree of flexibility now inherent in airline business models and the scope for this to be used.

Approximately 500 more airline routes were opened and closed in 2011 compared to 2002. Roughly 2500 airline routes are now opened each year and roughly 2000 are closed each year. The route openings correspond to approximately 20% of the total stock of routes, while 15% of existing routes are closed every year.<sup>5</sup>

While the number of routes closed and opened each year has increased since 2002, the relative number of routes opened and closed has not increased due to overall growth in the market, with 54% more routes and 41% more seat capacity in 2011 compared to 2002.

Observed switching incorporates the normal process of experimentation, with new routes as well as airlines responding to external changes in travel patterns, especially in the tourism market. Indeed, routes opened within the last two years are more than five times more likely to be closed down than routes that have existed for more than eight years. However, a sizeable number of routes that have existed for more than two years are also closed each year, as shown in the figure below (see Fig. 1).

Whether the observed switching has the ability to affect airports will depend, firstly, on the importance of point-to-point carriers for the particular airport and, secondly, on whether the lost traffic can be readily replaced.

<sup>3</sup> Notice that this assessment is based on an implicit assumption that the initial prices are below monopoly level. If for some reason (e.g. lack of regulation or regulatory failure) prices are already at monopoly level, a small increase (or decrease) in the price level will not be profitable. However, in this case this is not an indication of well-functioning competition.

<sup>4</sup> Though Luton Airport is a fast growing airport today, the quote illustrates the flexibility of many point-to-point carriers' business models.

<sup>5</sup> The churn measured as a share of passengers or seat capacity is likely to be lower since it is likely that the opened and closed routes have a below-average number of passengers.

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