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Airport slots: Can regulation be coordinated with competition? Evidence from Dublin airport[☆]

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ABSTRACT

Slot regulations have implications for airport efficiency and for competition in aviation; this paper analyses the relationship between slot regulation and aviation competition drawing on the experience of the application of the EU slot rules at Dublin airport. It concludes the best way to promote competition in aviation is to avoid choosing an administrative basis of slot allocation, especially when a new airport is being developed, opting instead for market-compatible mechanisms, whether slot trading or runway charges that are differentiated by scarcity value.

1. Introduction

"[T]he IATA [slot allocation] process protects the status quo, entrenches incumbents, is anti-competitive, and is generally blocking effective entry." Gillen (2008) p.52

When demand for airport facilities exceeds supply, rationing can be achieved by delays (first-come first-served), by administrative rules like slots¹, or by market-clearing prices.

Quantitative evidence on the relationship between capacity and demand at European airports is limited. SEO (2017) contains measures such as movements per runway and a capacity utilisation index, based on Eurocontrol data for 55 European airports. Quantitative estimates of future excess demand are more readily available from a series of 'Challenges of Growth' reports prepared by Eurocontrol, the European agency for air navigation safety. The most recent of these, Eurocontrol (2013), sets out four scenarios for capacity shortfalls at European airports for the period 2035–2050, as presented in Table 1.

The most likely 2035 scenario (C) involves a shortfall in airport capacity equivalent to nearly 2 million flights by 2035. If these shortfalls occur, the need for measures to manage demand will be acute, and slot rules versus other options will continue to be a focus for research and policy discussion.

The European Union (EU) has chosen to manage excess airport demand by means of administrative rules. The European Union slot rules are set out in two regulations; EEC 95/93 which was adopted in 1993 and modified by EC 793/2004 a decade later. The regulations derive from the global regime of IATA guidelines which aim to satisfy principles of neutrality, transparency and non-discrimination (IATA, 2000). A particular challenge for the EU, with its 28 separate jurisdictions and different legal and

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¹ Article 2(a) of Regulation EEC 95/93 defines a slot as a permission given by a coordinator to use the full range of airport infrastructure necessary to operate an air service at a coordinated airport on a specific date and time for the purpose of landing or take-off.

Table 1
Estimated shortfall in airport capacity in Europe in 2035.
Source: Eurocontrol (2013), Challenges of Growth 2013, Fig. 9.

Scenario	Unaccommodated flights (million) in 2035	Unaccommodated demand (%) in 2035
A: Global growth	4.4	20
B: Regulated growth	1.9	12
C: 'Happy localism'	1.0	7
D: Fragmenting world	0.2	2

administrative traditions, is to achieve consistent application of 'common rules'.

Under Article 3 of EC 793/2004, there are three possible EU airport designations:

- Coordinated (Level 3): airlines wishing to land or take off must hold a slot assigned by the airport's slots coordinator;
- Schedules facilitated (Level 2): airlines are assisted by a schedules facilitator to manage on a voluntary basis scheduling at times with the potential for congestion at the airport; and
- Undesignated (Level 1): airports where there is no significant congestion.

In Summer 2017, according to the IATA World Scheduling Guidelines (IATA, 2017, Annex 3), 75 European airports were designated as schedules facilitated (Level 2) and a further 103 as coordinated (Level 3).²

Slot regulations have implications for airport efficiency and also for competition in aviation; this paper analyses the relationship between regulation and competition, drawing on the experience of applying the EU slot rules at Dublin airport.

The structure of the paper is as follows. Section 2 provides some background on current slot regulatory practice and development in the EU. In the following section, the paper considers the interplay between administrative slot coordination and competition issues and the link between airport capacity investment and the slot allocation regime. Using Dublin airport as a case study, Section 4 presents some of the practical difficulties in the application of the EU's slot regulations and illustrates some of the tensions between regulation and competition set out in Section 3. Section 5 concludes with a number of lessons learned from Irish experience and makes recommendations to EU and international policymakers.

2. The EU slot regulations

In this section of the paper, the rules governing airport designation are set out, with the role of the coordination committee, the slot allocation principles, and a number of recent abortive attempts to reform the current regulations in the direction of market mechanisms.

2.1. Airport designation under EU rules

For an airport to be designated schedules facilitated only the principles of transparency, neutrality and non-discrimination need to be satisfied.

For the status of coordinated, the legal requirements are much more demanding. On the face of it, coordination is a last resort and alternatives to slot controls should be considered, such as increased capacity or operational changes under a voluntary scheduling scheme. If sufficient airport capacity later becomes available, the coordinated status 'shall' (according to the regulations) be lifted; in practice, airports rarely if ever have coordinated status rescinded.

An airport may be designated as coordinated only if all of the following steps have been taken:

- 1. A thorough analysis of the airport's capacity
- 2. Based on 'commonly recognised methods'
- 3. That has been made available to and discussed with interested parties
- 4. Finds a 'shortfall in capacity' of such a serious nature that 'significant delays cannot be avoided' and
- 5. That there are no possibilities to resolve these in the short term whether by new or modified infrastructure, or operational or other changes in light of the time required to make such changes.

Especially in jurisdictions where interested parties are willing to make active use of the law courts – including in Ireland (see Section 4 below) – there are cases where the courts have overturned the designation of an airport because of a failure to unambiguously meet *even one* of the five steps listed above.

At a coordinated airport, the coordinator is responsible for slot allocation in line with the Regulation. The coordinator allocates movements with reference to 'coordination parameters'; for example, a maximum number of runway movements at certain hours, and a maximum hourly passenger capacity of the airport terminal. An airline whose slot request cannot be accommodated must be

 $^{^{2}}$ Author's email correspondence with IATA, July 2017.

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