Authors

Name	Hugo Silva
Affiliation	VU University
Country	—
Bio statement	—

Principal contact for editorial correspondence.

Title and Abstract

Title: Third-degree price discrimination by congestible facilities

Abstract: Congestible facilities, such as airports, train stations and seaports, provide an input to downstream firms (e.g. airlines) that operate in multiple markets (e.g. city-pairs). In many countries input price discrimination is banned, so that suppliers must charge uniform prices to firms. The extent to which the bans on input price discrimination apply also to congestible facilities is large. For example, the EU directive (2009/12/EC) prohibits differentiated charges to airlines using the same service (i.e. terminal and level of service). The same holds for airports in the U.K. (CAA, 2006). Similar examples can be found in other transport sectors as well.

Congestible facilities, besides providing input to buyers that operate in multiple markets, have two characteristics that are relevant for the analysis and make them different from other cases. First, there is congestion: demands are interrelated through congestion and downstream firms do not fully internalize this externality, so that the aggregate output may be inefficiently high from this point of view. Second, the ownership form of such facilities subject to price discrimination regulation is diverse: in Europe alone, the ban applies to private airports, mixed private-public and 100% public airports. The incentives of the facilities to apply price discrimination and, therefore, its effect on welfare may largely vary with the ownership form.

The purpose of this paper is to study under which conditions a ban on price discrimination increases social welfare when applied to both private (profit-maximizing) and public (local welfare-maximizing) congestible facilities. We focus on the case where a facility sets charges to equally efficient downstream firms, which can be local or foreign, and compete in different markets that are interrelated through congestion. We use a theoretical stylized model that accounts for the main relevant characteristics of congestible facilities described above. The model allows for studying and identifying the conditions that make a ban on price discrimination socially desirable when applied to profit maximizing facilities as well as to local-welfare maximizing facilities. In this way, we contribute to the input price discrimination literature by considering congestion and local welfare maximizing input providers, but also to the transport policy literature.

Our analysis suggests that: (i) when congestion is sufficiently low, a ban on price discrimination reduces welfare when applied to a privately owned facility and to a local welfare maximizing facility. (ii) if congestion is sufficiently high, a ban on price discrimination is the optimal policy for a profit maximizing facility. (iii) when congestion is high, the effect of a ban on price discrimination on a local welfare maximizing facility is ambiguous.