



Evaluating different pricing policies on social welfare: an application to Madrid Barajas

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Abstract

In this paper, we assess the potential impacts of different airport charges schemes that can be applied in Madrid Barajas airport. We use a model that has already been applied in the literature to calculate the social welfare of the different price regimes. The term social welfare refers to the social welfare generated from only aeronautical services, while the social welfare created from non-aeronautical activities will not be discussed here. We define, as is common in the literature, that the social welfare is the sum of consumer surplus and producer surplus. We analyze the potential impact of different pricing policies using the values obtained on social welfare, and using the concept of ‘potential loss of social welfare’ when the lack of adequate capacity preclude the potential demand from using the airport. Thus, we evaluate the “losses” or “gains” of each alternative pricing policy. Our results may contribute to the on-going debate in Madrid and around Europe about the merits of adjusting airport charges to different scenarios, e.g. congestion or lack of capacity or excess of capacity, in which airports are usually involved.

Keywords: Airport regulation; Social welfare; Airport pricing policies.

Introduction

Barajas airport is the principal gateway of the Spanish airport system. In 2003 it moved a total of 35 million passengers, and accounted for 27% of air traffic between the EU and South America. Some analysts have foreseen that future air deregulation in Europe, the United States of America and Asia will continue to put pressure on the Spanish airport system. In the face of this situation, the government has given high priority to airport infrastructure expansion plans. The capacity expansion programme for Barajas airport will change the present capacity of 80 air traffic movements per hour up to 120 air traffic movements in two different phases. The first one will increase the capacity up to 100 movements and it is expected to be finished at the beginning of winter 2005, the second one will definitely increase the capacity up to 120 movements and new aircraft could land and take-off at the beginning from the winter 2006. At the

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