Deliverable 5.1 Intermediate Report from Airport Case Studies

Executive Summary

This deliverable analyses the effects of differentiated airport charges by studying — through different methodological approaches — four case studies based on several European airports (Gran Canaria and Madrid-Barajas, in Spain, the airports in the London area, and Hamburg).

The case study for Gran Canaria airport considers the problem of peaks associated with massive tourist arrivals and departures as determined by tour-operators. Important investment resources are being allocated to this because of the peak nature of demand, and without consideration of other alternatives to allocate existing capacity. The demand pattern is mandated by tour-operators imposing very high costs to society. In this sense, the aim of this case study is to tentatively estimate these costs and explore incentives mechanisms, in particular alternatives airport pricing schemes in order to induce a more efficient utilization of airport capacity. Preliminary analysis of demand indicates that demand peaks are dynamics in time but also in space. Any pricing policy aimed to a more efficient use of airport capacity should consider this fact. As scheduled, in the coming months we will carry on with phases three and four of the case study; these are:

- Identification and possible quantification of external costs associated to peak periods borne by private and public agents at the airport and by economic agents located outside the airport but directly related to tourism.
- Analysis of alternatives available in order to reach a more efficient capacity allocation. It is in this context that the effects of price differentiation mechanisms on airlines will be investigated.

On the other hand, the Madrid Barajas airport case study concentrates on how the actual level and structure of airport charges can have an influence on airlines competition when they can choose among different terminals, therefore emphasising the scope of price differentiation by type of terminal. In this case. The initial allocation of slots at the new facilities was subject to great controversy among Spanish airlines, though in the end Iberia and its partners of Oneworld alliance operate from the new terminal 4, whilst its main national competitors, Spanair and its partners of Star are located at the old facilities. One of the main consequences of such allocation is quite probably a reduction in the level of competition among airlines. During the coming months this case study will concentrate on its third phase by using a theoretical framework based on standard microeconomic principles and welfare economics. This case intends to develop recommendations for better practices, while simultaneously forecasting the consequences of changes in the current charging system.

In the case of the London area airports, user charges to airlines vary substantially between peak and off-peak periods. This leads to the question of what the consequences of such differentiated charges are. To understand how and to what extent these charges are transferred to passengers, airline ticket prices for flights during various parts of the day are analysed. The statistical analysis is carried out with a dataset containing information from a sample of UK airports, including both those with and without peak-pricing. The case intends to characterize users’ responses to price differentiation in the context of airport choice decisions. The estimation results presented in this deliverable are derived from a nested logit model. We plan to use more advanced models in the future work and are now working on the accessibility data. However, all discrete choice models have shortcomings. An underlying assumption is that all alternatives (in e.g. the London-Dublin market) are available to all respondents. In fact, some respondents may not consider all alternatives. More importantly, the model does not capture the fact that seats in certain booking classes or for a specific flight may not be available at the time of booking. To model this we would need more detailed data, but this is not available. Finally, we include the frequency as an explanatory variable (most authors do this), while the frequency of service offered by an airline may in fact depend on the probability that an airline is chosen. This issue has not yet been addressed in the literature.

Finally, Hamburg airport has currently no capacity problems; it is one of the so-called secondary airports in Germany and its management is actively trying to attract new customers. Differentiation in
Hamburg landing-fees mainly takes place with respect to noise emission, with the aim of encouraging airlines to use less noisy aircrafts. In this context, the objective of this case study is to analyse whether the Hamburg price differentiation scheme has had any effect so far (e.g. whether airlines indeed use less noisy planes), and to what extent this effect has altered travel behaviour. Hamburg airport was one of the first airports in Germany that sold a big part of its shares. It was the first German airport that imposed price cap regulation and one of the first that differentiated its charges according to noise emissions. The development of output figures in Hamburg shows that restructuring the charging regime was an important step for the airport. However, regarding the differentiation principles there are no considerable effects recognizable. In addition, the proportions of the two-part tariff became more variable after the reorganisation. This enables users (especially legacy carriers) to concentrate on their plans for expanding service frequency. The regulatory framework gives carriers the opportunity to intervene in the process of setting the pricing rules. Consequently the reasons for the current price structure are better explained by the positive theory of regulation, described in WP 2 and WP 3. Concerning the variabilisation of the price structure, the analysis provides first evidence for confirming hypothesis 6 described in D 3.1 “An implementation of non-linear pricing has as a result that SIGs will attempt to affect the proportion of the fixed and the variable components of the charge”. In addition, it seems that price differentiation will take place, if the most important interest groups are favourable towards differentiation. However, in order to obtain certainty, it is important to perform statistical econometrical analyses, which will be the next step in this case study.