

# The Effect of LCCs and Alliances on Airfares in the European Skies

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## OBJECTIVES

The main objective of this work is about the contribution to the existing literature regarding the effects on airfares resulting from Low-Cost Carriers (LCCs) and alliances operations in Europe. The value added of this paper is incremental and directed to both the research community and the public authorities regulating the market. Yet, to the best of our knowledge, this is the first paper describing the impact of cooperation and LCCs on ticket prices in the European gateway-to-gateway market. The results provided by this work want to serve the purpose to support and help policy makers in their understanding of the effects of open sky liberalizations (LCCs) and of informal restrictions on competition (alliances) that must be scrutinized carefully by antitrust authorities.

## METHODOLOGY

Following a descriptive analysis, a panel data econometric model is developed. We tackled some econometric challenges such as the possible endogeneity between airfares and competition measures. In particular, a route-time fixed effects 2SLS model is developed on two different versions of the dependent variable: the first model is run on an average weighted fare that comprehends all the airlines selling tickets on a specific market in a given month; the second model only considers Full-Service Carriers' (FSCs) fares while computing averages, with the aim to tentatively capture FSCs pricing behavior when facing LCCs competition. Each model uses two different specifications: the first equation uses simple dummy variables to approximate the presence of LCCs and alliances in each route-month and offers an immediate interpretation; the second specification measures the intensity of LCCs and alliances operations and allows for a quadratic model to be studied. Data are mostly collected from the Traffic Analyzer and the Schedule Analyzer modules provided by the Official Airline Guide (OAG) and consist of monthly based observations collected from the main carriers marketing flights in Western and Eastern Europe between January 2016 and December 2019. We focus on directional, one-way, non-stop O&D flights considering markets defined as city-pairs.

## RESULTS

The main results find a 13% airfare reduction when LCCs operate a route, and a monotone negative trend as their market share increases. Conversely, alliances cause average fares to increase by almost 8%. Finally, FSCs rise their fares when marketing a route together with LCCs. The average increase is about 2% but again, it varies with the market share of the competitors. In this second fashion, the function defined from our equation has a maximum: if LCCs' market share remains below 46%, FSCs' fares increase, otherwise decrease as well.

## **IMPLICATIONS**

This work constitutes a first attempt at an explicit empirical analysis of the effect of LCCs and alliances on airfares in the intra-European market. The econometric estimates suggest that the presence of Low-Cost Carriers is still beneficial years after the first studies pointed that out. According to our results, the presence of LCCs is particularly helpful if significantly intense, otherwise it may cause FSCs to rise their fares, hence harming the high-end consumers. Conversely, the presence of alliances in the European gateway-to-gateway market seems not to constitute an advantage, at least on consumers' pockets. Our paper aims at supporting policy authorities in their decision-making process regarding competition and cooperation with updated insights based on the best data available and consolidated methodology. Investigating this issue is not only important in general, but it is also more relevant now that the entire airline industry can be reshaped. The outbreak of Covid-19 will be a turning point in many fields, and aviation is obviously one of the most affected compartments. That said, the mechanisms behind the focus of our research will hardly change after the pandemic and that is why this work is still relevant for the future. Among other things, thinking about the much-debated government interventions, this work offers insights that may guide regulators in the design of policy actions like fostering the entrance of some sort of airlines (i.e., LCCs) and/or assisting them with state aids which account for the social benefit they generate.