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Competitive vs. monopolistic routes: Are fares so different?

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ABSTRACT

Many different carriers operating on the same route is usually regarded as a signal of a competitive setting and, therefore, as a situation potentially beneficial for customers in terms of lower prices. This is obviously true if the argument involves a comparison between different market forms given the level of demand. Across different routes, however, the number of carriers depends also on the level of demand for each particular pair of destinations, so that we cannot assume a priori that fares per kilometre on “monopolistic” routes are higher than on more “competitive” ones. We study the price policy during 2008 of the two main European low cost carriers, Ryanair and easyJet, with reference to one hundred of the least, and one hundred of the most, dense routes among those operated by the two carriers respectively. The systematic occurrence of higher (for Ryanair), or at least no lower (for easyJet), average prices on competitive routes if compared with prices on routes with a single carrier by the same airline, surprising as it may be, supports the conclusion that a low level of demand is sufficient to impose low fares to some extent irrespective of the degree of competition.

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1. Introduction

That an increase in the degree of competition in a certain market will bring about lower prices with a consequent increase in consumers' welfare is almost a dogma among economists. This is “obviously” true if the argument involves a comparison between different market forms *given* the level of demand. Concerning competition in civil aviation, for instance, it has been recently reiterated that.

“[L]egacy-carrier competition in an airport-pair market has a limited effect on fares. In contrast, LCC competition has dramatic fare impacts, whether it occurs in-market, at adjacent airports, or as potential competition. These findings confirm and extend previous results, while affirming a common view about the sources of competition in today's airline industry”

Brueckner, Lee, & Singer, 2012, 29.

Indeed, it is generally agreed not only that the entry of a low-cost carrier (LCC) on a certain route usually ends in a significant

lowering of fares but also that the arrival of LCCs on a certain market induces a lowering of fares on potentially contestable routes (see Button & Ison, 2008; Goolsbee & Syverson, 2008).

In the applied research on airline competition, however, we find contrasting evidence either about the influence of competition on price dispersion,¹ or on its influence (often measured using as a proxy the number of competitors on a single route or a specific city-pair) on the average fare.² Apart from the pitfalls of the number of competitors as a precise indicator of the degree of competition (cp. Lijesen, Nijkamp, & Rietveld, 2002), it can be observed that across different routes the number of carriers depends on the level of demand for each particular pair of destinations.

The aim of this paper is to argue that we cannot therefore assume a priori that fares per kilometre on “monopolistic” routes are higher than on more “competitive” ones, because other things (namely the “density” of the compared routes) are by no means equal. Our conjecture is that fares on less dense routes, their monopolistic appearance notwithstanding, under appropriate circumstances may become lower than fares on more dense routes

¹ See Bilotkach (2006), Borenstein and Rose (1994), Gerardi and Shapiro (2009), and Mantin and Bonwood (2009).

² When econometric tools for panel data are employed in order to investigate pricing behaviour in airline industry, the variable “number of competitors on a single route (or city-pair)” rarely displays a significant coefficient of the expected sign.

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with a substantial number of competitors. This might come out as particularly relevant with reference to the pricing policies practised by LCCs across different routes and, more generally, to their evolving business model. As a matter of fact, as it has been recently observed, “the fact that average frequencies have decreased and average route distances increased since 2001 indicate that LCCs are increasingly operating in exceedingly thinner niche markets.” (de Wit & Zuidberg, 2012, 17).

The paper is organized as follows. Section 1 reports a description of the data we make use of in the paper. Section 2 presents some regression results, while Section 3 offers some final remarks on the tentative evidence which seems to emerge from the above exercise.

2. Data description

In order to provide some empirical support to our conjecture, we looked at the price policy during 2008 of the two main European low cost carriers, Ryanair and easyJet, with reference to one hundred of the least, and one hundred of the most, dense routes among those operated by the two carriers respectively. These data constitute a very small portion of our database of low-cost ticket prices, which is permanently updated by collecting fares from companies' website on a daily basis. For each flight, we call for the price of a single (one-way) seat starting from 60 days prior to departure to the day before departure. We check the website in early morning from 1 a.m. to 6 a.m. and collect published fares for the same routes at the same time each day. When ticket prices appear to be no longer available, we consider the associated flights as fully-booked (but we continue to monitor flights in order to confirm that prices go on not to be available in the remaining days prior to departure). Prices represent the full price paid by travellers, thus including airport charges and other taxations; otherwise, they do not include credit card surcharges, travel insurances, and other surcharges for extra baggage or priority boarding. Portions of the same database have been utilized for the empirical analyses in Malighetti, Palaria, and Redondi (2009 and 2010), Salanti, Malighetti, and Redondi (2012a and 2012b) and in ICCSAI (2011 and previous years).

For each flight the average price is assumed equal to the mean of the sixty spot prices offered in the sixty consecutive days. Though this mean does not take into account possibly different passenger booking patterns, still it represents a good proxy of the average

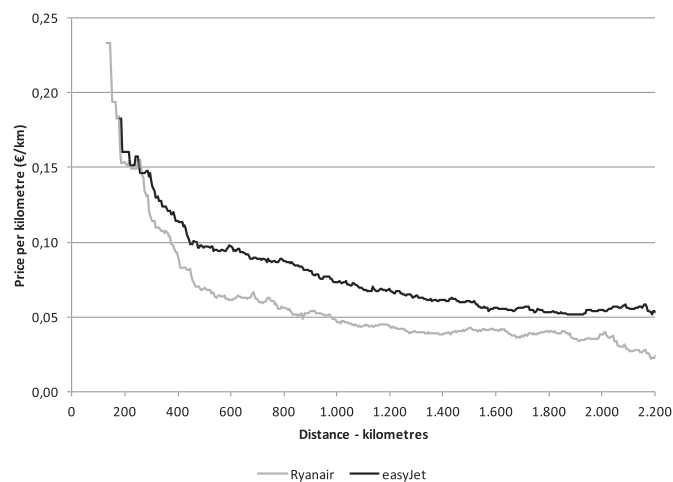


Fig. 1. Price per kilometre (€/km) for easyJet's and Ryanair's routes as a function of distance.

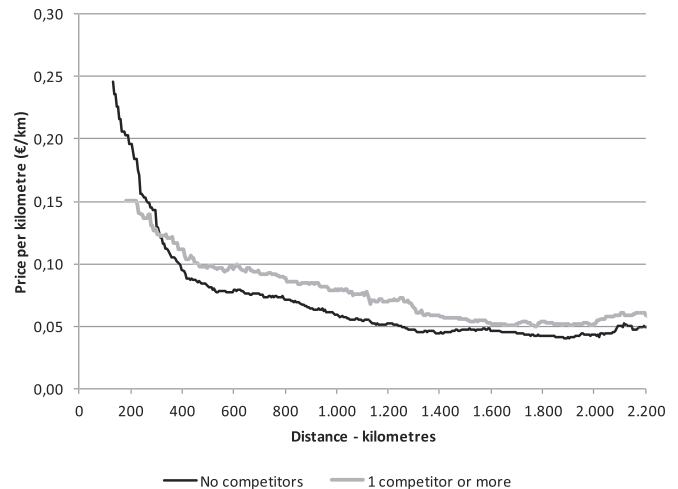


Fig. 2. Price per kilometre (€/km) as a function of the presence of direct competitors and distance.

price paid by the passengers since an uniform booking pattern is consistent with dynamic pricing optimization.³ For each route and each carrier we then calculated the average price for all flights operated during the year. So, the average price for each route and carrier depends on the daily frequencies offered during the year. In case of higher frequencies during summer days, as for leisure routes, the average price is closer to fares offered in those periods. Fig. 1 represents the average price per kilometre applied by Ryanair and easyJet on their 2008 flights. Apart from a small number of short routes (less than 200 km), on all other distances Ryanair confirms its leadership in term of low fares, whilst the gap between Ryanair and easyJet average prices decrease for flight distances between 1500 and 2000 km.

Otherwise, if fares for flights operated by both carriers in presence of at least one competitor on the same route are compared with fares for flights on “monopolistic” routes (Fig. 2), we can easily see that average prices on competitive routes are systematically higher than prices on non competitive ones.⁴

Fig. 3 shows the average price per kilometre applied by Ryanair and easyJet as a function of their weekly frequencies offered on the airport pair. In the case of easyJet, average prices appear relatively stable around 8 cent € per kilometre with a peak for frequencies of 60 flights per week and then a decrease for denser routes. We observe a very different trend for Ryanair, whose average fares vary sharply with a peak for weekly frequencies of 15, a decline with a minimum average price for intermediate weekly frequencies of 40, and then a steep increase for its denser routes. Ryanair remains cheaper for all offered frequencies. The maximum frequency offered by easyJet, 80 flights per week, is much higher than that offered by Ryanair, 58.

Both Ryanair and easyJet in 2008 were offering more than 600 routes. In order to evaluate average prices applied on routes with

³ For a comprehensive discussion of the rationale behind the practice of dynamic pricing, see McAfee and te Velde (2006). On more empirical grounds, data reported in Koenigsberg, Muller, and Vilcassim (2008) about easyJet also confirm a tendency to steady booking patterns.

⁴ This is in agreement with what has been already noticed in Malighetti et al. (2009, 203): i.e. that the presence of competitors does not seem to have had a significant impact on the average Ryanair's prices during 2005–2006. Rather, the variable representing the number of competitors operating on the same route resulted positively correlated to the dynamic pricing intensity. This seemed to indicate that direct competition had not led to a decrease in average ticket prices, but rather to greater discounts on advance bookings.

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