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The impact of Gulf carrier competition on U.S. airlines

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ABSTRACT

Gulf carriers, such as Emirates Airline, Etihad Airways, and Qatar Airways, have expanded aggressively and are creating an increasingly dense global network. These carriers' future growth prospects, however, hinge on their ability to gain access to markets in Europe and America, for example. Existing bilateral agreements stifle the Gulf carriers' ambitious expansion plans in some instances, and incumbent carriers lobby to restrict further market access. To contribute to this debate, the objective of this research is to empirically examine the effects of Gulf carrier competition on U.S. carriers' passenger volumes and fares in international route markets. Based on data obtained from the U.S. Department of Transportation, the empirical results suggest that greater competition by Gulf carriers in U.S. international markets is associated with (1) significant growth in U.S.–Middle East traffic volumes and (2) small but statistically significant traffic losses and fare reductions for U.S. carriers in route markets connecting the U.S. with Africa, Asia, Australia and Europe.

1. Introduction

The rise of the Gulf carriers, most significantly Emirates Airline, Etihad Airways and Qatar Airways, has had a profound impact on the aviation industry (e.g., Durganhee, 2013). Founded in 1985, 2003 and 1993, respectively, the business model of the these carriers focuses on transporting passengers between Africa, Asia, Australia, Europe, the Middle East and the Americas via their hubs in Dubai, Abu Dhabi and Doha. Hence, the Gulf airlines compete head-to-head with European, Asian and American carriers in international markets (Kindergan, 2014). Indeed, the Gulf airlines' explosive growth—their combined passenger numbers nearly doubled between 2008 and 2013 (see also Fig. 1)—has made the Gulf carriers the "new force [...] in the world of air travel" (The Economist, 2010) and reaffirms the Gulf as a key nexus of global travel and trade flows (Hooper et al., 2011).

As the Gulf carriers have significantly increased their capacity to the U.S. and elsewhere in recent years (Cameron, 2011), incumbent airlines have responded in an effort to defend their stake in their lucrative international air passenger markets (Bachman, 2014).[1] Claims that Gulf carriers have an unfair competitive advantage and harm local markets and airlines have resulted in "a barrage of legal and political challenges to the Gulf carriers" (Carey and Michaels, 2013) and calls to restrict further Gulf carrier access to markets in Europe and Canada, for example (de Wit, 2014; Parker, 2012).

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[1] See also, for example, http://www.lufthansagroup.com/fileadmin/downloads/en/policy-brief/03_2014/epaper/#/6 (last accessed on September 14, 2014).

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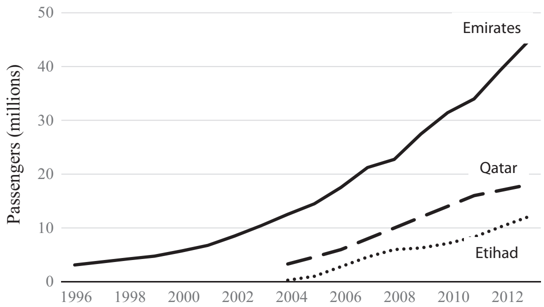

Fig. 1. Time series of Gulf carrier passenger counts (The data were retrieved from annual reports and figures released by the respective carriers. Qatar Airways data prior to 2004 were not available. Etihad Airways commenced operations in 2003, with 2004 being the first full year of operations.)

While the growth of the Gulf carriers has received significant attention in the trade press, relatively few academic studies have examined its effects on the air travel market. A notable exception is the work by Squalli (2014) who studied the relationship between the openness of air travel markets and the performance of Emirates Airline. Based on an analysis of 155 route markets originating in Dubai, Squalli (2014) concluded that further liberalization of the UAE market (and, by extension, other Gulf carriers' markets) leads to greater passenger volumes, lower fares and, ultimately, welfare gains. Similarly, Hazledine (2010) studied trans-Tasman air markets and concluded that Emirates offered significantly lower fares but did not exert much pricing pressure on incumbent carriers Air New Zealand and Qantas. Based on an exploratory analysis of route markets connecting Germany and Asia, Grimme (2011) also concluded that competition by Gulf carrier such as Emirates contributed to growth in overall passenger demand and was not associated with any losses in transfer passengers at German hub airports.

The current study contributes to this nascent stream of research by examining how Gulf carrier competition has affected U.S. carriers' traffic volumes and fare levels in international route markets. This effect is twofold: First, Gulf carrier competition directly impacts route markets connecting the U.S. to the Middle East, such as the Washington Dulles to Dubai route, served by both Emirates and United Airlines. Moreover there is a secondary effect since Gulf carriers transport passengers through their Middle East hubs to beyond markets (i.e., sixth freedom traffic), thus impacting affects U.S. carrier operations to cities in Africa, Asia, Australia, and Europe. This secondary effect is significant since the majority of the Gulf carriers' passengers connect to beyond markets.[2] Drawing on data from the U.S. Department of Transportation (DoT), our research offers empirical analyses of both the direct and secondary impacts of Gulf carrier competition on U.S. airlines' international passenger numbers and fare levels.

In theoretical terms, our work bears similarity to studies on the effects of low-cost carrier competition in the U.S. airline industry. Following deregulation in the late 1970s, much academic research has investigated the effects of competition on air fares, passenger demand, and airline profitability (e.g., Borenstein, 1989; Brueckner et al., 1992; Fu et al., 2010). Within this stream of research, a substantial number of studies examined how different types of carriers, namely network and low-cost carriers, differentially compete and impact market outcomes (e.g., Hofer et al., 2008; Alves and Barbot, 2009; Ciliberto and Tamer, 2009; Borenstein, 2011; Murakami, 2011). Morrison (2001), for example, examined the effects of competition by Southwest Airlines on network carriers in both actual and adjacent route markets. Our research differs from the previous studies in that we focus on beyond markets, as well as direct traffic markets. Moreover, we study international markets and competition from foreign-based firms, so that competition can negatively impact domestic airlines and thus national welfare. Our study, thus, contributes to the ongoing policy debate regarding the rise and perceived threat of the Gulf carriers and, therefore, should be of great interest to both policymakers and airline managers.

2. Effects of Gulf carrier entry on aggregate passenger traffic between the U.S. and the Middle East

The purpose of our first analysis is to investigate how Gulf carrier entry impacts aggregate passenger flows between the U.S. and the Middle East.[3] Emirates' service between Dubai and New York (JFK) in 2004 marked the first foray of one of the "super-connectors" (The Economist[4]) into the U.S. market. Since then, all three Gulf carriers have expanded their services to the U.S. and now operate to numerous cities throughout the U.S. from hubs in Dubai, Doha and Abu Dhabi. These entry events enable us to observe the effects of new Gulf Carrier competition on total passenger volumes in U.S.–Middle East route markets.

[2] See e.g., http://www.ainonline.com/aviation-news/ain-air-transport-perspective/2012-11-05/emirates-keeps-profiting-dubais-hub-power (last accessed on September 12, 2014).

[3] There are multiple definitions of the term Middle East and the countries it includes. For the purpose of this study, the following airports (with services to/from the U.S.) are considered to be in the Middle East, in accordance with the geographic definition of the United Nations (http://www.un.org/Depts/Cartographic/english/htmain.htm; last accessed on June 12, 2013): AMM, AUH, DOH, DXB, JED, KHI, KWI, RUH, TLV.

[4] http://www.economist.com/blogs/gulliver/2014/07/middle-eastern-airlines; last accessed on October 23, 2014.