"**Clouded by Subsidies? The Backgrounds of the Open Skies Dispute**"

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INTRODUCTION

Over the past two decades, the global aviation market has witnessed a major power shift. With Qatar, Etihad, Emirates and other airlines relentlessly growing and ambitious projects such as Al Maktoum International –soon to be the world's biggest airport– under construction, American and European rivals are fearing for their market shares. The Partnership for Open & Fair Skies (POFS), a lobbying group representing among others American, Delta and United Airlines, claims that the secret of the Gulf carriers' success lies in unfair subsidization. They allege that the governments of Qatar and the United Arab Emirates (UAE) support their state-owned airlines with over 40 billion US$. Since this is "distorting the international aviation market and undermining fair competition" (Partnership for Open and Fair Skies 2017), the coalition demands the United States (U.S.) government to renegotiate their Open Skies agreements with Qatar and the UAE. Restrictions on these agreements, which liberalize the U.S. skies to competition, would have severe consequences for the Gulf airline trio. Qatar, Etihad and Emirates Airlines reject all accusations and in turn blame U.S. airlines for benefiting from state support themselves, in form of pension-fund contributions and advantageous bankruptcy-filing policies. (*The Economist* 2010)

In this dynamic dispute, a puzzling fact is often overlooked: According to the allegations, Qatar Airways received over 2.5 times more subsidies than the Emirates Airlines. Yet, while the latter rose to become a highly-competitive market-dominating player in the aviation landscape, the former failed to take-off in the same manner. If subsidies really were the driver of success, what would explain this outperformance? It appears that the secret of Emirates' performance goes way beyond subsidies. This in turn suggests that the U.S. carriers have various hidden motives for their subsidies-allegations apart from wanting to make American competition fair again.

The present paper will explore the backgrounds of the Open Skies Dispute, proceeding as follows. First, section I will present the two sides of the dispute and compare their current economic performance. Second, an analysis of Emirates' business model and competitive advantages will determine the drivers of success of the airline's outperformance in section II. Third, section III will analyze the positions of key stakeholders involved in the aviation industry and, on this basis, provide an outlook on the future development of the dispute. Finally, a brief conclusion will be drawn. Ultimately, this paper seeks to shed light on two main questions: *To what extent do subsidies make a difference in the Emirates Airline's performance? And, what are the hidden motives of U.S. carriers behind their allegations against the Gulf carriers?*

I. THE OPEN SKIES DISPUTE

The Gulf's airline trio of Emirates, Etihad and Qatar Airways has long been accused by their rivals in Europe and America of unfair competition due to government subsidies. In March of 2015, the POFS coalition finally found supporting evidence of subsidies amounting to 42 bio US$ since 2004 (Anderson 2015). POFS has submitted the proof to the U.S. government, pleading for renegotiations of their bilateral Open Skies agreement with Qatar and the UAE. Open Skies agreements are negotiated by the U.S. government with other countries and allow the foreign airlines to provide international passenger and cargo services without government intervention in commercial airline decisions about routes, capacity, or pricing. As a result, carriers' services to consumers become more affordable and efficient, which aims at increasing travel and trade, and, ultimately, creating new jobs. Winston and Yan (2015) found that the U.S. agreements have generated over 4 bio US$ in annual gains to consumers so far. (Bureau of Economic and Business Affairs 2017)

The U.S. has officially concluded such liberalization deals with Qatar and the UAE in 2001 and 2002, respectively (U.S. Department of State 2002, 2001). Open Skies treaties bind both governments to high security and safety standards and protect consumers from prices that are "unreasonably high or restrictive due to the abuse of a dominant position" (ibid., Art. 12, 1b). However, they also protect airlines from "prices that are artificially low due to direct or indirect governmental subsidy or support" (ibid., Art. 12, 1c). It is thus unsurprising that the POFS argue Qatari and UAE's subsidies are violating the terms of the agreements.

Table 1 below shows the alleged subsidies received by the three Gulf airlines between 2004 and 2014 according to the POFS. The coalition group found that a total of 36,549 mio US$ had been allocated to the trio and that both Qatar and Etihad Airways had already committed to 4,172 mio US$ more. With almost 16.5 bio US$ Qatar Airways received the largest amount, followed by Etihad Airways with around 13.5 bio US$ and by the Emirates Airline with less than half of that, 6.5 bio US$. Regarding the Emirates, claims are that the government assumed their 2.4 bio US$ loss in fuel-hedging and charged less than adequate airport-related fees at Dubai International, saving the airline 3.2 bio US$. Furthermore, the Emirates Airline benefited from 0.9 bio US$ in passenger fee exemptions and credits. Delta Airline's CEO Ed Bastian argued they were "competing against governments, not airlines" (Jansen 2017), but Sir Tim Clark, the CEO of Emirates, denied all accusations. What is more, the Gulf carriers responded by claiming that the U.S. airlines themselves benefited from a "back-door subsidy" thanks to restructuring under the protection of Chapter 11 of the U.S. Bankruptcy Code (*The Economist* 2015).

Table 1: *Alleged Actionable Subsidies Received by Gulf Airlines between 2004-14 according to Partnership for Open & Fair Skies. Source: Anderson (2015).*

In million US$	**Etihad**	**Qatar**	**Emirates**
Government Equity Infusions	6,291	-	-
Government Loans at Preferential Rates	1,375	618	-
Government Loan Guarantees	-	6,809	-
Debt Forgiveness/Fuel Hedging	4,63	7,756	2,395
Grants	111	22	
Provision of Airport Terminal Facilities for LTAR*	-	-	1,392
Provision of Other Goods and Services for LTAR	-	452	1,855
Passenger Fee Exemptions and Credits	501	616	871
Provision of Airport Revenues	-	215	-
Assumption of Promotional Expenses	640	-	-
Total Received	**13,548**	**16,488**	**6,513**

*Less than adequate remuneration

But, regardless of subsidies, are the Gulf carriers indeed such a frightening competition? In order to answer this question, *Table 2* below gives key performance indicators exemplarily for United Continental, Emirates and Qatar Airways in 2016.

Table 2: *Key Performance Indicators of U.S. and Gulf Airlines. Source: United Continental Holding Annual Report 2016, The Emirates Group Annual Report 2015/16, Qatar Airways Group Annual Report 2015/16.*

In million US$	**United Continental[*]**	**Emirates Group[1]**	**Qatar Airways[2]**
Year of Foundation	1926	1985	1994
Revenue Passenger Miles[3] (mio)	210,309	158,559	-
Employees (Number)	82,272	95,322	39,369
Total operating expense	32,218	23,510	-
Total operating revenue	36,556	25,312	9,791
Net income (loss)	2,263	2,558	837
Operating Margin	6.19%	10.10%	8.60%

[*]Data is for fiscal year ending 31 March 2016, except United Continental Holding for 31 December 2016
[1]Figures for Emirates converted from United Arab Emirates Dirham to United States Dollars at 3.67 AED/USD
[2]Figures for Qatar Airways converted from Qatari Rials into United States Dollars at 3.64 QAR/USD
[3]Revenue Passenger Miles (RPMs) is the product of the number of paying passengers and the total distance traveled; figures for Emirates converted from Kilometers to Miles

The data clearly shows that United Airlines is far from suffering losses, achieving a net profit of 2,263 mio US$ in 2016. This is just below the 2,558 mio US$ of net profits by the Emirates Group. Emirates employed around 15% more personnel than United who has 82,272 employees. In comparison to this, the figures of Qatar Airways are very small, with profits amounting to only 837 mio US$ and a total of 39,369 employees in the same period. United has almost 50 bio more RPMs than Emirates and its turnover equals almost four times that of Qatar Airways. However, Emirates Airlines leaves both its regional and its American rival behind when it comes to operating margins: While United and Qatar Airways reach 6.19% and 8.6% respectively, Emirates outperforms at 10.10%. In 2016, Emirates won for the fourth time the Skytrax World's Best Airline Award, which judges services excellence based on passenger satisfaction (Emirates Media Center 2016). United, on the other hand, is busy handling scandals, such as the hospitalization of a passenger who was violently dragged off an overbooked plane to make room for United's cabin crew, which caused United's shares to drop by up to 4% in mid-April 2017. All of this shows that Emirates is indeed a threatening competition for U.S. airlines. The next section will analyze its underlying drivers of success.

II. Emirates Airlines: Business Model and Competitive Advantage

Emirates is fully owned by the UAE through the Emirates Investment Authority, its federal sovereign wealth fund. Over the last 30 years Emirates has risen to become one of the world's largest international airline. In 2015-16, Emirates carried 51.9 million passengers and 2.5 million tons of cargo from Dubai to 151 destinations in 80 countries. The airline's gross profits grew by 56% compared to the previous period and have, in fact, been growing consecutively over the past decades. In the most recent fiscal year, Emirates acquired 29 new Airbus A380 and Boeing 777 aircrafts, increasing its capacity (i.e. Available Seat Miles) by 13%. The average fleet age of 74 months, way lower than the industry average of 140 months, is characteristic for Emirates. (The Emirates Group 2016)

In a detailed analysis of the Emirates' business model, John F. O'Connell (2011) found three core competencies to be Emirates' success drivers: (1) its hub and spoke operation, (2) its competitive cost structure, and (3) its strong brand.

Concerning the first point, a hub and spokes network is based on channeling traffic from smaller national airports (i.e. spokes) to a bigger airport (i.e. the hub) to exploit economies of scale. While this usually means joining several short-haul flights into one long-haul flight, Emirates Airlines strong competence lies in consolidating long-haul to long-haul operations, which has been associated with increased profitability.

Regarding the second point, a competitive cost structure, *Table 3* below compares the weight of several cost items for United Continental Holdings and the Emirates Group.

Table 3: *Selected Cost Items as Percentage of Total Operating Expense of U.S. and Gulf Airlines. Source: Analysis of United Continental Holding Annual Report 2016, The Emirates Group Annual Report 2015/16.*

Cost Item	**United Continental**	**Emirates Group**
Fuel & oil	18.04%	22.87%
Labor (Wages & benefits)	31.89%	18.89%
Handling	-	6.54%
Landing & Other rent	6.72%	2.31%
Aircraft Maintenance	5.43%	2.91%
Depreciation & Amortization	6.14%	9.65%
Distribution & Advertising	4.67%	7.31%
Operating Leases (Aircraft Rent)	2.11%	9.37%

The figures highlight the various competitive advantages of Emirates. First, what sticks out is that labor costs are the biggest component of United's operating expenses (31.89%), while they represent only the second-biggest for Emirates (18.89%), after fuel cost. This can be explained by enterprise-favorable working conditions in the UAE, where there are no legacy cost, strikes are prohibited and collective bargaining unions do not exist. This avoids costly events, such as Air France's pilot strike in June 2016. Furthermore, due to postponed retirement and prohibited age-based hiring discrimination, flight attendants and pilots in the U.S. have increasingly become older (on average 79.3% are older than 34), which raises health care and pension cost for U.S. employer, compared to Emirates who recently launched a hiring campaign seeking explicitly for flight attendants "aged from 21 to 30". (Saenz and Evans 2009; *Traveller* 2011) In addition, many labor-intensive tasks like ground handling or maintenance are assumed by the cheap unskilled labor sourced from India, Pakistan or Bangladesh, made possible through the liberalization of the UAE labor market. As a result, both the average wages and pensions are comparably low. For instance, Emirates labor cost are on average 64% lower than that of British Airways. A second major cost-driver are fuel cost. While the total expense is relatively larger than for United (22.87% *versus* 18.04%), unit cost for Emirates are on average lower. This is thanks to a relatively shorter supply chain to the nearby oil resources. Furthermore, Emirates' younger fleet consumes less fuel. Moreover, the airline engages successfully in fuel-hedging as a measure of cost controlling. This means airlines buy or sell the expected future oil price using investment products such a call options or swap contracts, to hedge against volatile prices. The prominence of hedging strategies in the Emirates competencies suggests that the alleged subsidies received in form of the government assuming fuel hedging losses might play a quite important role in Emirates competitiveness. Third, with only 2.91% of the total expenses, Emirates' cost for aircraft maintenance are much smaller than those of United, mainly due to the younger age of the fleet which requires less frequent overhaul. Fourth, lower costs (2.31% *versus* 6.72% for United) for airport charges and navigation fees suggest that alleged subsidies in forms of artificially low remuneration for airport-related services foster Emirates' cost competitiveness. Lastly, overall expenses are kept low thanks to the UAE's aviation-friendly policies that allows Emirates Airlines to work in a tax-free environment. (O'Connell 2011, 343-45)

Third, O'Connell argues that Emirates Airline's leverages its brand value through very important strategic investments in advertising and sports sponsorship (4% of total expenses). However, the Emirates brand, albeit still highly valued, dropped to the fifth place in 2017, after ranking first place as the world's most valuable airline brand in the last five years. (Statista 2017) Therefore, this core competence should be reevaluated.

In addition to these three key proficiencies, other aspects should be mentioned. First, Emirates buys aircrafts in large bulks and is an early adopter of new generations, which comes with discounts of up to 40%. A second smart strategy is a balanced geographical diversification of ticket sales across continents, e.g. 36% Europe and the Americas, 30% Asia Pacific and Oceania, 25% Middle East. (O'Connell 2011, 340-41) This contrasts with United Airlines, that according to its 2016 Annual Report sourced alone 60.73% of revenues from domestic routes. Lastly, the Emirates Airline is part of a highly-integrated system where the government can create cost synergies among state-owned entities to facilitate national economic growth. For instance, Emirates' chairman Sheikh Ahmed bin Saeed Al Maktoum is also president of the UAE's Department of Civil Aviation and of Dubai World Central, an entity which oversees airport operations through their incorporated Dubai Airports Company. (U.S. Commercial Service 2016)

This analysis demonstrated that any subsidies (if received) may well have encouraged key competencies of Emirates' performance, but would overall not have been the *decisive* success factor. The following section will therefore explore the real motivations of U.S. airlines behind the subsidies-accusations.

III. STAKEHOLDERS IN THE AVIATION INDUSTRY

The Open Skies Dispute as displayed by the media and official statements does not reflect the full story. Behind the scenes, the involved actors face many different incentives, which explain the (hidden) motivations of their respective position. When looking at the United States, the U.S. government is facing lobbying from different actors:

Most prominently, as outlined above, the U.S. airline lobby is pushing for Open Skies renegotiations, fearing for their market share and jobs. The POFS often argues that 800 American jobs are at risk every time a US airline loses an international route to the Gulf carriers. However, according to an analysis of data from the U.S. Department of Transportation by *The National* (2016), full-time employment by the main U.S. airlines has been constantly growing at 3.7% p.a. over the past years. Furthermore, in contrary to the POFS claims that the *American market* is at stake, the threat does not concern the domestic routes of the U.S. market (nor international direct flights from the Middle East, for instance Dubai-New York). Instead, what the rival airlines really worry about are flights stopping in Europe, such as Dubai-Milan-New York, since the second part of the flight (i.e. Milan-New York) directly competes with the U.S.- and European-dominated transatlantic routes –some of the most profitable and competitive routes in the world. (*Business Insider* 2015, 2017) Overall, the airline lobby is increasingly unsatisfied, however, it has only limited leverage over the government. The recent example of the 1991 default of Pan American Airways, the largest U.S. carrier at that time, shows that bankruptcy is not considered a completely impossible option in the eyes of the government.

A second stakeholder with different incentives are airports. While they also fear for their jobs, the reason is opposite, namely a *decline* in the number of gulf carrier flights. The same holds true for related industries, such as tourism. The number of passengers carried to and from the U.S. by the Gulf trio has increased from roughly 0.5 mio in 2004 to over 5.5 mio in 2015 and contributed to a healthy development of the industry. However, the 20% reduction of the number of flights to the U.S. by Emirates in April 2017 (details will be described later) are fueling fear and uncertainty. (Financial Times 2017b, 2017c)

Another actor opposed to impeding ties with the Gulf airlines (but much more powerful than the previous group) is the U.S. aviation manufacturing industry. With Boeing as main frontline player, this group fears a decline in demand. The Middle East is currently the most important commercial region for Boeing with UAE as the third biggest purchaser of Boeing aircrafts, followed by Turkey (fourth) and Qatar (seventh). Furthermore, estimations predict the region’s demand to be 3,310 new aircrafts worth 770 bio US$ during the next 20 years. (Aviation Business Middle East 2017) According to a 2016 report by the Federal Aviation Administration, aviation manufacturing continues to be the U.S. main net export. The innovative, technology-based sector is thus of great importance for the economy’s future.

The fourth actor are labor unions. Here, it is necessary to distinguish between pilots and flight attendants (whose incentives align with those of airlines) on the one hand; and airport personnel as well as representatives from aviation manufacturing and tourism industry (whose incentives mirror those of airports and manufacturers) on the other hand. Both groups can exercise direct power influencing their employers through strikes or bargaining, but are also often represented in larger industry lobbying groups, such as the POFS and thus also influence the government.

Based on this stakeholder analysis, renegotiation of Open Skies Agreement by the government seem rather unlikely, since the opposing groups have the larger leverage. However, the new Trump administration could change the picture, since its economic policy envisions protectionism. The recent announcement of investigations of steel imports competition shows that they are being serious about it. In addition to the potential long-term risk of losing American jobs due to the Gulf competition, the government faces a more direct and short-term threat, namely security. The explosion of Daallo Airlines flight 159 due to a bomb deposited in a laptop by Somalian Al-Shabaab terrorists in February 2016 was a “wake-up call”, reminding governments that terrorist groups are still targeting aviation. (Financial Times 2017a) This has led U.S. and U.K. authorities to implement a laptop ban on Mideast flights from ten airports –one of the reasons for the 20% decrease in Emirates flights mentioned above. The second reason are President Trump’s travel restrictions on citizens from Iran, Libya, Somalia, Sudan, Syria and Yemen. Nevertheless, it should not be neglected that security threats might serve as a good means to conceal protectionist measures, while avoiding a direct provocation of the U.S. political allies in the Middle East.

If the U.S. government further pursued the protectionist path by renegotiating the Open Skies Agreement with UAE and/or Qatar, this would have major consequences for the balance of power in the aviation landscape. On the one hand, according to Qatar Airways CEO Al Baker the U.S. ban and travel restrictions already represent one of the most serious setbacks for Gulf airlines since they entered the U.S. market. (Financial Times 2017b) On the other hand, U.S. competitors would largely benefit from reduced competition.

The previous analysis showed a dynamic U.S. aviation landscape with conflicting interests. What interests are shaping positions when we look at the other side of the globe?

Overall, the interests of the European airline industry show an overwhelmingly similar pattern because both are facing the same strong competitor. Nevertheless, Europe looks back on a different history of its aviation industry, where liberalization happened only in 1993, much later than the deregulation of the U.S. market in 1978. While within the scope of this paper we could only focus on the U.S. rivals, this is an interesting aspect to explore in future research. Looking even further east, interests of the governments of the UAE and Qatar are quite clear. Despite the allegations, neither the government of Qatar nor that of the UAE will stop encouraging their airlines' growth – be it through subsidies or favorable policies. The reason is obvious. With British Tim Clark as CEO, Sheikh Ahmed bin Saeed Al Maktoum as chairman as well as pilots and cabin crews from all over the world, Emirates Airlines is the perfect showcase of a globally-integrated company. It incorporates the government's vision of extending the "Dubai Model" of diversification and rapid growth to transform the UAE into a major global economic hub. The Emirates' turnover already account for 25% of Dubai's GDP (O'Connell 2011, 339). Hence, support of aviation is crucial and will most likely continue in the future.

CONCLUSION

This paper outlined the dynamics of the Open Skies Dispute between U.S. airlines and their rivals from the Gulf. From the first part, it could be observed that the U.S. airlines' current performance is healthy, yet Emirates Airlines represents a threatening rival mainly due to its high operating margins and excellent service quality. The second part found that any potentially received subsidies might complement and encourage Emirates' performance, but would not represent a *decisive* success factor. Rather, a combination of the (alleged) financial advantage and an extraordinary competitive business model that benefits from extremely favorable competitive advantages makes drives the success of Emirates Airlines compared to its U.S. and European rivals (as well as to the other Gulf carriers). The third part demonstrated that U.S. airlines are in fact concealing protectionist motivations, namely to get rid of threatening competition. Several actors, such as the aviation manufacturing industry, have economic leverage over the U.S. government and oppose the renegotiations of the Open Skies agreements, which would decrease demand from the Middle East. Yet, the recent protectionist orientation of U.S. economic policy have made restrictions more likely. The outcome of the Open Skies Dispute remains unclear. However, any settlement or conciliation will definitely remain out of reach as long as the Gulf carriers' growth does not see any limits.

Bibliography

Anderson, Charles L. 2015. "Evidence of Actionable Government Subsidies Received by Etihad Airways, Qatar Airways and Emirates Airline." Washington, DC: Capital Trade Incorporated. http://www.openandfairskies.com/wp-content/themes/custom/media/Exhibits.pdf.

Aviation Business Middle East. 2017. "Boeing's High Hopes." *Aviation Business Middle East*, March 22. http://www.aviationbusinessme.com/aviation-services/aircraft-production/2017/mar/22/435909/.

Bureau of Economic and Business Affairs. 2017. "Fact Sheet: Open Skies Partnerships: Expanding the Benefits of Freer Commercial Aviation." U.S. Department of State. http://www.state.gov/e/eb/rls/fs/2017/267131.htm.

Business Insider. 2015. "The Middle East's 3 Best Airlines Have Infuriated Their US Competitors," May 28. http://uk.businessinsider.com/middle-eastern-us-airlines-dispute-future-of-air-travel-2015-7.

———. 2017. "Warren Buffett's Berkshire Hathaway Lost up to $58.5 Million after the United Debacle." *Business Insider*, April 11. http://uk.businessinsider.com/united-airlines-video-stock-buffett-berkshire-hathaway-2017-4.

Emirates Media Center. 2016. "Emirates Named World's Best Airline at Skytrax World Airline Awards 2016." *Emirates Media Center*. December 7. https://www.emirates.com/media-centre/emirates-named-worlds-best-airline-at-skytrax-world-airline-awards-2016.

Federal Aviation Administration. 2016. "The Economic Impact of Civil Aviation on the U.S. Economy." Washington, DC: Federal Aviation Administration.

Financial Times. 2017a. "High-Tech Airline Terror Threat Alarms Western Nations." *Financial Times*, March 21. https://www.ft.com/content/3367ad24-0e56-11e7-b030-768954394623.

———. 2017b. "US Ban Deals Blow to Middle East Airlines but UK Stance Offers Hope." *Financial Times*, March 21. https://www.ft.com/content/facd7cee-0e4d-11e7-a88c-50ba212dce4d.

———. 2017c. "Emirates Cuts Back on Flights to US after Heightened Security." *Financial Times*, April 19. https://www.ft.com/content/faad0030-251e-11e7-a34a-538b4cb30025.

Jansen, Bart. 2017. "Delta Optimistic Trump Will Deal with Airports, Mideast Rivals." *Detroit Free Press*, January 12. http://www.freep.com/story/travel/flights/todayinthesky/2017/01/12/delta-trump/96490692/.

O'Connell, John F. 2011. "The Rise of the Arabian Gulf Carriers: An Insight into the Business Model of Emirates Airline." *Journal of Air Transport Management*, Selected Papers from the 13th Air Transport Research Society Conference, 17 (6): 339–46.

Partnership for Open and Fair Skies. 2017. "Gulf Carrier Subsidies." *Partnership for Open and Fair Skies*. http://www.openandfairskies.com/subsidies/.

Saenz, Rogelio, and Louwanda Evans. 2009. "The Changing Demography of U.S. Flight Attendants." Population Reference Bureau. http://www.prb.org/Publications/Articles/2009/usflightattendants.aspx.

Statista. 2017. "Brand Value - Airlines in 2017 | Statistic." https://www.statista.com/statistics/275944/brand-value-of-airlines/.

The Economist. 2010. "Rulers of the New Silk Road," June 3. http://www.economist.com/node/16271573#print.

———. 2015. "Feeling the Heat: Airline Subsidies in the Gulf," June 5.

http://www.economist.com/blogs/gulliver/2015/03/airline-subsidies-gulf.

The Emirates Group. 2016. “Annual Report 2015-16.” Annual Report. Dubai: The Emirates Group. http://content.emirates.com/downloads/ek/pdfs/report/annual_report_2016.pdf.

The National. 2016. “Open Skies Dispute between US and Gulf Airlines Escalates,” January 30. http://www.thenational.ae/business/aviation/open-skies-dispute-between-us-and-gulf-airlines-escalates.

Traveller. 2011. “Superjumbo Coolness: Emirates Seeks 4000 New Flight Attendants,” August 25. http://www.traveller.com.au/superjumbo-coolness-emirates-seeks-4000-new-flight-attendants-1jc3n.

U.S. Commercial Service. 2016. “United Arab Emirates - Competition from State-Owned Enterprises.” *U.S. Department of Commerce*. August 11. https://www.export.gov/article?id=United-Arab-Emirates-competition-from-state-owned-enterprises.

U.S. Department of State. 2001. “Air Transport Agreement between the Government of The United States of America and the Government of Qatar.” https://www.state.gov/documents/organization/114398.pdf.

———. 2002. “Air Transport Agreement between the Government of The United States of America and the Government of the United Arab Emirates.” https://www.state.gov/documents/organization/125743.pdf.

Winston, Clifford, and Jia Yan. 2015. “Open Skies: Estimating Travelers’ Benefits from Free Trade in Airline Services.” *American Economic Journal: Economic Policy* 7 (2): 370–414.