EDGEWORTH ECONOMICS'

EMPIRICAL INVESTIGATION AND ANALYSIS OF ECONOMIC ISSUES RAISED IN

"RESTORING OPEN SKIES: THE NEED TO ADDRESS SUBSIDIZED COMPETITION FROM STATE-OWNED AIRLINES IN QATAR AND THE U.A.E."

MAY 21, 2015

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY 1

II. EXPERTS' QUALIFICATIONS 3
A. John H. Johnson, IV 3
B. Michael Kheyfets 3

III. ASSIGNMENT 4

IV. ASSESSMENT OF CLAIMS REGARDING "VALUE" OF THE OPEN SKIES AGREEMENTS 4

V. ASSESSMENT OF CLAIMS REGARDING "GULF CARRIERS TAKING SHARE WITHOUT MEANINGFULLY STIMULATING DEMAND" 6

VI. ASSESSMENT OF ALLEGATIONS REGARDING DISPLACEMENT OF U.S. CARRIERS 13

VII. ASSESSMENT OF HISTORICAL PUBLISHED FARE TRENDS ON KEY ROUTES 16
A. Analysis of Published Fares on Key Routes Between the United States and the Indian Subcontinent 17
B. Benchmarking Etihad's U.S.-ISC Published Fares to Those of Carriers on Other International Routes 20

VIII. ASSESSMENT OF U.S. CARRIERS' INTERNATIONAL TRAFFIC PATTERNS 22

IX. ASSESSMENT OF ALLEGATION THAT CAPACITY GROWTH EXCEEDS GLOBAL GDP GROWTH 26

X. ASSESSMENT OF ANALYSES IN THE COMPASS LEXECON REPORT 30
A. The Compass Lexecon Report Fails to Establish a Causal Link Between the Analyses it Presents and the Alleged Subsidies 31
B. The Compass Lexecon Report Focuses Only On U.S.-International Passenger Traffic, Ignoring Key Evidence 33
C. The Entirety of Analyses in the Compass Lexecon Report are Predicated on a False Notion That Etihad and Other Gulf Carriers Must "Stimulate Demand" in Order to be Allowed to Operate 35
D. The "Basic Analysis" in the Compass Lexecon Report Has Substantial Problems 36
E. The Regression Analyses in the Compass Lexecon Report Have Substantial Problems 37

I. EXECUTIVE SUMMARY

1. The analyses in this report represent an investigation of specific assertions made in a report entitled "*Restoring Open Skies: The Need to Address Subsidized Competition From State-Owned Airlines in Qatar and the UAE*," ("Open Skies Report")[1] as well as economic issues closely related to those assertions.[2] Our findings are as follows:

- The assertion that Etihad Airways ("Etihad") disproportionally benefits from the bilateral Open Skies agreement because there are more Etihad flights than those offered by U.S. carriers ***between Abu Dhabi and the U.S.*** represents an incorrect characterization and analysis of competition in the airline industry.
  - The appropriate level of analysis when examining competitive alternatives for passenger air travel is between origin and destination ("OD") combinations and not between a carrier's hub (i.e., Abu Dhabi) and a destination. For example, a passenger who wants to travel from New York City to Mumbai can travel on Etihad with a connection in Abu Dhabi or—for example—on American Airlines/British Airways with a connection in London. Though these two journeys do not connect in the same location, they *do* in fact compete for the same customers.
- The assertion that Etihad "***takes passengers***" from U.S. carriers ignores the fact that the overall volume of travel on these routes has *expanded* since Etihad began operating on them, and that Etihad serves routes either not served or potentially underserved by U.S. carriers. It also ignores the competition among (i) Gulf carriers, (ii) U.S. carriers, and (iii) other carriers.
  - Between 2009 and 2014, the total volume of passenger traffic between the U.S. and key regions served by Etihad (such as the Indian Subcontinent ("ISC") and the Middle East) increased, in some cases substantially.
  - In some instances, the U.S. carriers' losses in ***share of passengers*** were more than offset by the increase in their ***total number of passengers*** traveling on a certain route. For example, while members of Immunized Alliances[3] served a smaller share of total U.S. to ISC traffic in 2014 than

[1] *Restoring Open Skies: The Need to Address Subsidized Competition From State-Owned Airlines in Qatar and the UAE*, January 28, 2015. ("*Restoring Open Skies*")

[2] The analyses presented below rely on data that Etihad has provided from third party and proprietary sources. We have had discussions with Etihad business personnel regarding these data.

[3] For the purposes of this report, "Immunized Alliances" are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases. *See* U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014). This includes Delta, Air France-KLM, Alitalia, Czech, Korean, Virgin Atlantic, United, Air Canada, Brussels, Lufthansa, Swiss, Austrian, SAS, LOT, TAP United, Air

they did in 2009 (36 vs. 41 percent), they actually served 18 percent (over 223,000) *more passengers* in 2014 because of the growth in the overall volume of travel on this route.

- Pricing in the airline industry is complex and it is important that appropriate comparison groups be developed when analyzing prices of multiple carriers on the same OD pair. Based on our analysis, Etihad's published economy class fares on routes between the U.S. and the ISC are close to or slightly lower than the median fares published by competing carriers. However, the magnitudes of differences vary across routes, with Etihad being above the typical fares published for some routes.
  - A analysis benchmarking Etihad's median revenue per kilometer ("RPK") on routes between the U.S. and ISC to fares published by Immunized Carriers on transatlantic routes—where coordination between U.S. and foreign carriers is allowed by way of antitrust immunity conferred by the U.S. government—indicates that Immunized Carriers' RPK is substantially higher.
- The assertion that Etihad (together with other Gulf carriers) is adding capacity at a rate greater than forecasted growth in demand is inconsistent with economic intuition and is predicated on faulty analysis. When the analysis is revised to account for a more appropriate proxy for growth in demand, the implied growth in demand for air travel services is actually ***greater*** than the estimated capacity expansion.
  - An analysis of U.S. Department of Transportation data indicates that while Etihad has increased the number of available seats on flights between the U.S. and its hub in Abu Dhabi, its load factors have remained around 80 percent.

2. This report also includes an initial assessment of claims made in a report entitled "*Assessing the Impact of Subsidized Gulf Carrier Expansion on U.S.-International Passenger Traffic*," ("Compass Lexecon Report")[4] as well as of the analyses on which those claims are based. Our initial findings are that the conclusions reached in the Compass Lexecon Report are based on analyses that (i) have not been shown to have *any causal link* to the alleged subsidies, (ii) rely solely on U.S.-international passenger traffic and ignore other relevant evidence, and (iii) are predicated on the notion that in order to compete, new entrants must "stimulate demand" by serving only customers not already served by an incumbent U.S. carrier. These conclusions are further based on regression models that are fundamentally flawed.

New Zealand, Asiana United, All Nippon Airways, COPA, American Airlines, Lan Airlines, Lan Peru, British Airways, Iberia, Finnair, Royal Jordanian, Japan Air Lines, Virgin Australia.

[4] Darin Lee, Ph.D. and Eric Amel, Ph.D., *Assessing the Impact of Subsidized Gulf Carrier Expansion on U.S.-International Passenger Traffic*, May 13, 2015. ("*Compass Lexecon Report*")

II. EXPERTS' QUALIFICATIONS

A. John H. Johnson, IV

3. I am the President and CEO of Edgeworth Economics, L.L.C. ("Edgeworth"). Edgeworth is a consulting firm that provides clients with objective expert economic and financial analysis for complex litigation and public policy debates. Edgeworth's experts work in a wide range of applied economics and econometrics fields, including antitrust and class certification. Edgeworth has offices in Washington, D.C., San Francisco, CA, and Pasadena, CA. I am also on the Board of Directors of both National Appleseed—a nonprofit network of 17 public interest justice centers in the United States and Mexico—and the Hawaii Appleseed Center for Law and Economic Justice.

4. I received my B.A. *magna cum laude* with highest distinction in Economics from the University of Rochester and my Ph.D. in Economics from the Massachusetts Institute of Technology ("MIT"). My areas of specialization at MIT were econometrics—the application of statistics to economics—and labor economics. During my career as a professional economist, I have provided economic analysis in a wide range of litigation matters involving class certification, antitrust, labor and employment, damages calculation, and statistics. Prior to my employment as an economic consultant, I was an Assistant Professor of Economics and Labor and Industrial Relations at the University of Illinois at Urbana-Champaign, where I taught courses in labor economics. I have also taught as an Affiliated Professor at Georgetown University's Public Policy Institute, including a course on *Antitrust and Public Policy*.

5. I have testified and provided consulting on a wide-range of antitrust matters related to class certification, liability, and damages. I also have written numerous papers and given many talks on topics related to class certification, scientific standards in litigation, appropriate use of econometrics in litigation, and antitrust damages. I previously was an Editor of the *Antitrust Law Journal*. I submitted an amicus brief to the United States Supreme Court in *Comcast vs. Behrend* on the role of economic analysis in assessing the appropriateness of antitrust class certification. I have been accepted as an expert in Economics, Econometrics, and Statistics in Federal District Courts.

B. Michael Kheyfets

6. I am a Partner at Edgeworth and a professional economist who provides economic and financial research and analysis for clients in a variety of matters. I received my B.A. degree with *magna cum laude* and Phi Beta Kappa honors, as well as an M.A. degree in economics from Boston University. As a consulting economist, I have advised a variety of clients in litigation, advisory, and regulatory contexts. I have developed and analyzed large datasets for complex litigation matters and have employed statistical modeling to calculate damages for antitrust and labor disputes. I have also provided expert advice for

clients on a range of financial modeling issues outside of litigation, including in the areas of energy, telecommunications, and commercial real estate. I am also a member of the American Bar Association's Section of Antitrust Law Economics Committee. In this role, I develop resources to educate members of the legal community about issues in economics and statistics.

III. ASSIGNMENT

7. We have been asked by Etihad to review the "*Restoring Open Skies*" Report,[5] which we understand was published by a group called Partnership for Open & Fair Skies on January 28, 2015. We have also been asked to assess several economic claims made by the authors of this report—which include, among others, American Airlines, Delta Air Lines, and United Airlines[6]—as well as to develop empirical analyses to evaluate these claims. Lastly, we have been asked to conduct an analysis of historical published fare trends on key Etihad routes.

8. Additionally, we have been asked to provide our preliminary views on a report published on May 13, 2015 by economists Darin Lee, Ph.D. and Eric Amel, Ph.D. of the consulting firm Compass Lexecon, and to assess several economic claims made in that report.[7]

IV. ASSESSMENT OF CLAIMS REGARDING "VALUE" OF THE OPEN SKIES AGREEMENTS

9. The Open Skies Report argues that "the Open Skies agreements have conferred enormous benefits on Qatar and the UAE by opening the most lucrative market in the world to their airlines, even though they provide essentially no benefit to U.S. carriers in return."[8] This is, the authors of the Open Skies Report claim, because of the "low level of demand for travel originating in the two Gulf countries."[9]

10. The notion that Etihad disproportionally benefits from the bilateral agreement because Etihad offers more flights between Abu Dhabi and the U.S. than U.S. carriers do represents an incorrect analysis of competition in the airline industry. The appropriate level of analysis when examining competitive

[5] *See* http://www.openandfairskies.com/wp-content/themes/custom/media/White.Paper.pdf, Accessed May 20, 2015.

[6] *See* http://www.openandfairskies.com/about-us/, Accessed May 20, 2015.

[7] *See* http://www.openandfairskies.com/wp-content/uploads/2015/05/CL-paper-on-Gulf-Carrier-Traffic-1.pdf, Accessed May 20, 2015.

[8] *Restoring Open Skies*, p. 3.

[9] *Ibid*.

alternatives for passenger air travel is between origin and destination combinations[10] and not between a particular carrier's hub (*i.e.*, Abu Dhabi) and a destination.

11. **Exhibit 1** illustrates this issue. For example, a passenger who wants to travel from New York City to Mumbai has many options. That passenger can travel on Etihad with a connection in Abu Dhabi or on a number of other carriers, including:[11]

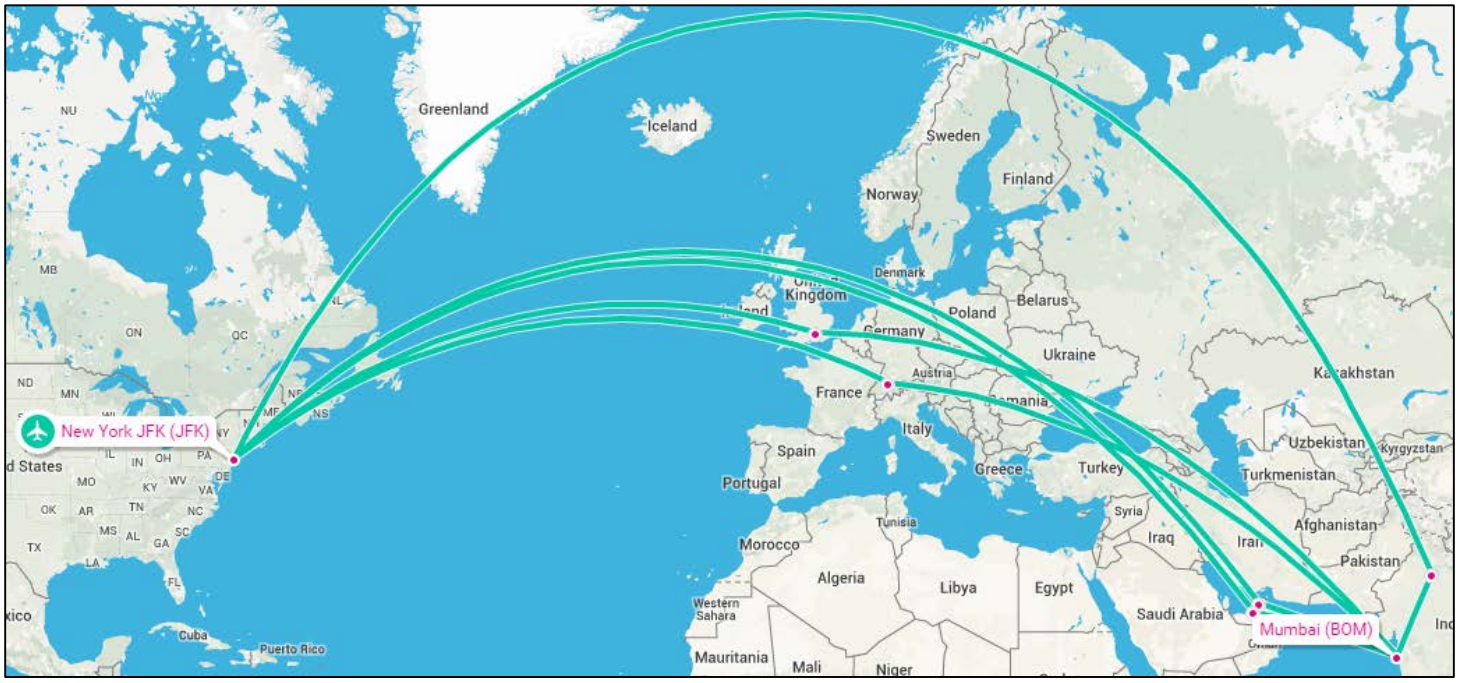
- American Airlines/British Airways with a connection in *London*;
- Emirates with a connection in *Dubai*;
- United/Lufthansa/Swiss Air with a connection in *Frankfurt, Munich, or Zurich*;
- Air India with a connection in *Delhi*;
- Turkish Airlines with a connection in *Istanbul*;
- Qatar Airways with a connection in *Doha*; or
- Delta/Air France/KLM with a connection in *Paris or Amsterdam*.

Though none of these journeys connect through the same hub, they do in fact compete for the same customers, as the customers are seeking to travel from one city to the other. It is *not*, however, relevant for an analysis of competition on this route where the trip connects before proceeding to the final destination (*e.g.*, connecting in Abu Dhabi vs. Istanbul).

[10] *See e.g.,* Brueckner, Jan, Darin Lee, and Ethan Singer. "City-Pairs Versus Airport-Pairs: A Market-Definition Methodology for the Airline Industry." *Review of Industrial Organization* 44.1 (2014): 1-25. European Commission and the United States Department of Transportation, *Transatlantic Airline Alliances: Competitive Issues and Regulatory Approaches*, November 16, 2010. (Available at http://ec.europa.eu/competition/sectors/transport/reports/joint_alliance_report.pdf, Accessed May 20, 2015)

[11] http://www.rome2rio.com/s/New-York-JFK/Mumbai-Airport-BOM-India, Accessed May 20, 2015.

EXHIBIT 1
ILLUSTRATION OF APPROPRIATE ANALYSIS OF COMPETITIVE ALTERNATIVES ON THE JFK-BOM ROUTE



Source: http://www.rome2rio.com/s/New-York-JFK/Mumbai-Airport-BOM-India, Accessed May 20, 2015.

V. ASSESSMENT OF CLAIMS REGARDING "GULF CARRIERS TAKING SHARE WITHOUT MEANINGFULLY STIMULATING DEMAND"

12. The Open Skies Report presents various statistics to purportedly demonstrate that Etihad and the other Gulf-based carriers are not "meaningfully stimulating demand."[12] For example, it contends that "the average daily bookings between the United States and the three Gulf hubs has increased by only 85 passengers per day" from 2008 to 2014.[13] As an initial matter, this calculation is simply wrong. For example, in the 12 months between March 2009 and February 2010, there were an average of 174 daily bookings between the U.S. and Abu Dhabi. In the 12 months between March 2014 and February 2015,[14] there were an average of 574 daily bookings between these destinations. This amounts to an increase of

[12] *Restoring Open Skies*, p. 48.

[13] *Id*, p. 49. (Emphasis in original)

[14] Etihad provided us with proprietary third party bookings data through February 2015. As a result—in order to use the latest available data—we define the years in our analyses between March and February. Additionally, our analyses indicate that overall demand for air travel declined between 2008 and 2009 as a result of the economic downturn generally referred to as the "Great Recession." Therefore, in order to distinguish the effects of the recession from those of the changing competitive landscape in the airline industry, we begin our analyses of travel volumes in 2009.

400 bookings—or approximately 230 percent—per day.[15] What this entire analysis ignores, however, is that by offering passengers access to destinations *beyond* their hubs, Etihad and the other Gulf-based carriers have served a growing *overall* demand for travel to and from the United States, particularly on routes that were either unserved or potentially underserved by U.S. carriers and their European partners.[16]

13. For example, a substantial portion of Etihad's U.S.-based traffic originates (or terminates) on the ISC. In order to study whether Etihad's presence on this segment of travel has served growing demand (or responded to "pent-up demand"), we have conducted an analysis of passenger flow on Etihad's OD pairs—individually and in aggregate—that connect the U.S. and ISC. Specifically, we analyzed data from Marketing Information Data Transfer ("MIDT") databases[17] to assess the *total number of passengers* traveling between the U.S. and destinations in the ISC. We calculated total traffic between (i) the U.S. and key *regions* served by Etihad, (ii) the U.S. and key *countries* served by Etihad, and (iii) key OD pairs connecting Etihad's U.S. gateway locations to the ISC.[18] **Exhibit 2** provides an illustration of how the overall volume of economy class travel between U.S. and ISC has grown since 2009. Similar analyses for additional key routes are attached as **Appendix A**.

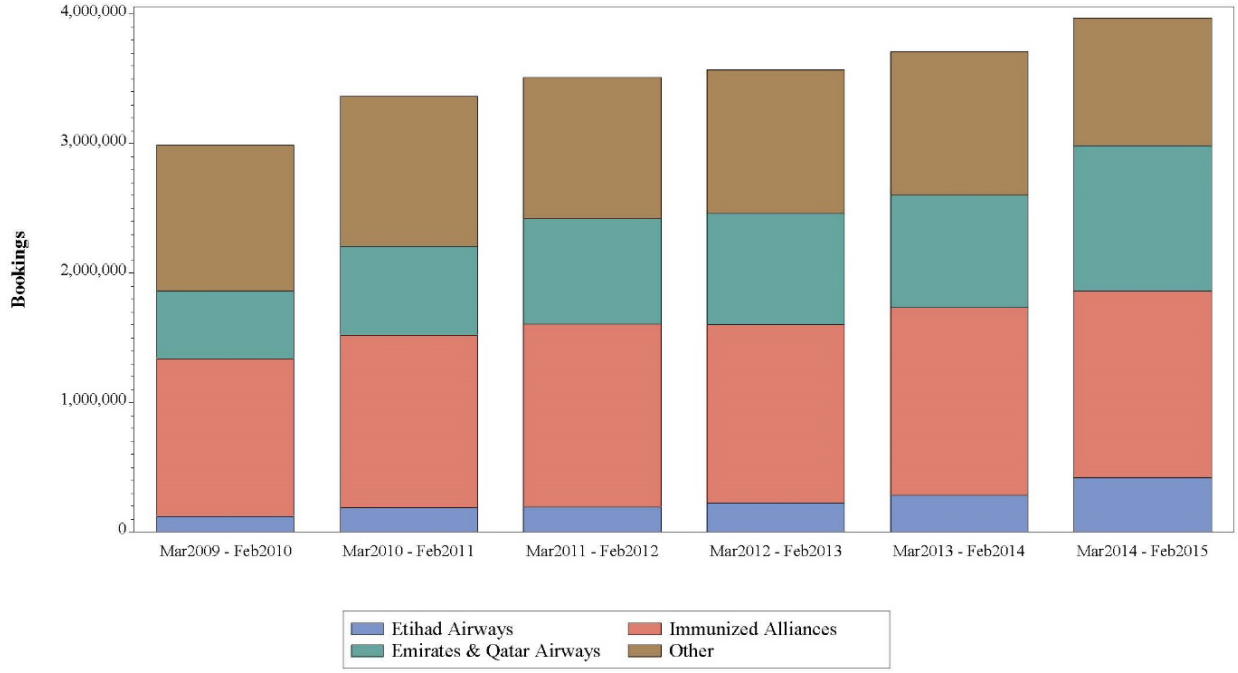
[15] Average daily bookings between the United States and Dubai in these two periods increased from 1,204 to 2,076, an increase of over 870 bookings—or over 70 percent—per day.

[16] Notably, even today, U.S. carriers do not offer direct service to many of the regions Etihad serves. Rather, they partner with carriers from Germany, France, and United Kingdom—among others—to service these routes. (*See e.g.*, ¶11, *supra*.) Moreover, the U.S. carriers also use the networks of the three Gulf carriers to transport their passengers to these destinations. For example, Qatar Airways is a member of the Oneworld Alliance, in which American Airlines is the U.S. partner. American Airlines also has a codeshare agreement with Etihad to serve many of the regions it does not fly to itself.

[17] The MIDT system captures passenger bookings, irrespective of whether the passenger actually traveled. We use the marketing carrier for a particular booking for the purposes of our analysis.

[18] Our analysis of specific OD pairs focuses on the top two routes by total passenger flow between Etihad's U.S. gateway cities and six destinations in the ISC. These routes include New York to Delhi, San Francisco to Delhi, New York to Mumbai, San Francisco to Mumbai, New York to Islamabad, Washington, DC to Islamabad, New York to Dhaka, Washington, D.C. to Dhaka, New York to Colombo, Los Angeles to Colombo, Chicago to Hyderabad, and New York to Hyderabad.

EXHIBIT 2
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND INDIAN SUB-CONTINENT
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases. *See* footnote 3, above.

[2] Traffic flows are non-directional.

[3] Indian Sub-Continent includes Bangladesh, India, Pakistan, and Sri Lanka.

Sources:

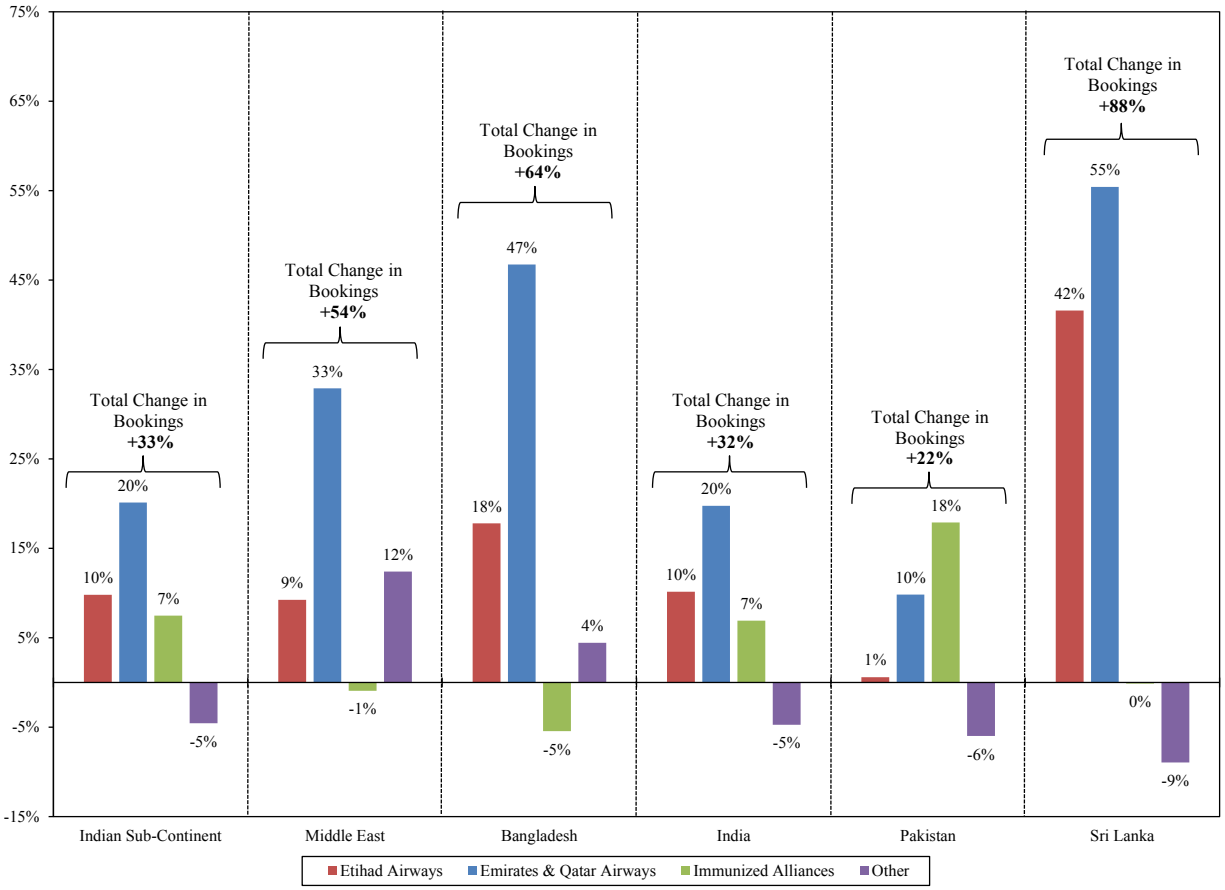
MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

14. As this exhibit shows, the total volume of annual travel between the U.S. and ISC increased by approximately one million passengers—or 33 percent—between 2009 and 2014. Etihad served close to 300,000 more passengers in 2014 than it did in 2009, which represents 10 percent growth relative to total volume of travel in 2009. Similarly, the Immunized Alliances, which include United, Delta, and American Airlines—as well as their European partners[19]—served approximately 224,000 more passengers in 2014 than they did in 2009, or 7 percent growth relative to total volume of travel in 2009.

15. **Exhibit 3** provides a summary of our analysis, which shows the portion of the overall economy class growth on these routes served by each carrier.

[19] *See* footnote 3, above, for the full list of carriers that have antitrust-immune relationships with the U.S. carriers.

EXHIBIT 3
SERVED SHARE OF OVERALL GROWTH IN VOLUME OF TRAVEL
BETWEEN UNITED STATES AND KEY REGIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] This analysis compares total travel volume between March 2014 and February 2015 to the total travel volume between March 2009 and February 2010.

[2] **Indian Sub-Continent** includes Bangladesh, India, Pakistan, and Sri Lanka. *Other carriers* include, among others, Air India, Cathay Pacific, Jet Airways, Turkish Airlines, Kuwait Airways, Pakistan International Airlines, Singapore Airlines, Air China, China Southern Airlines, and Saudi Airlines.

Middle East includes Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen, and United Arab Emirates.

Other carriers include, among others, Saudi Arabian Airlines, Turkish Airlines, Gulf Air, Kuwait Airways, EgyptAir, Aeroflot, Jet Airways, and Cathay Pacific.

[3] Traffic flows are non-directional. Numbers may not add up due to rounding.

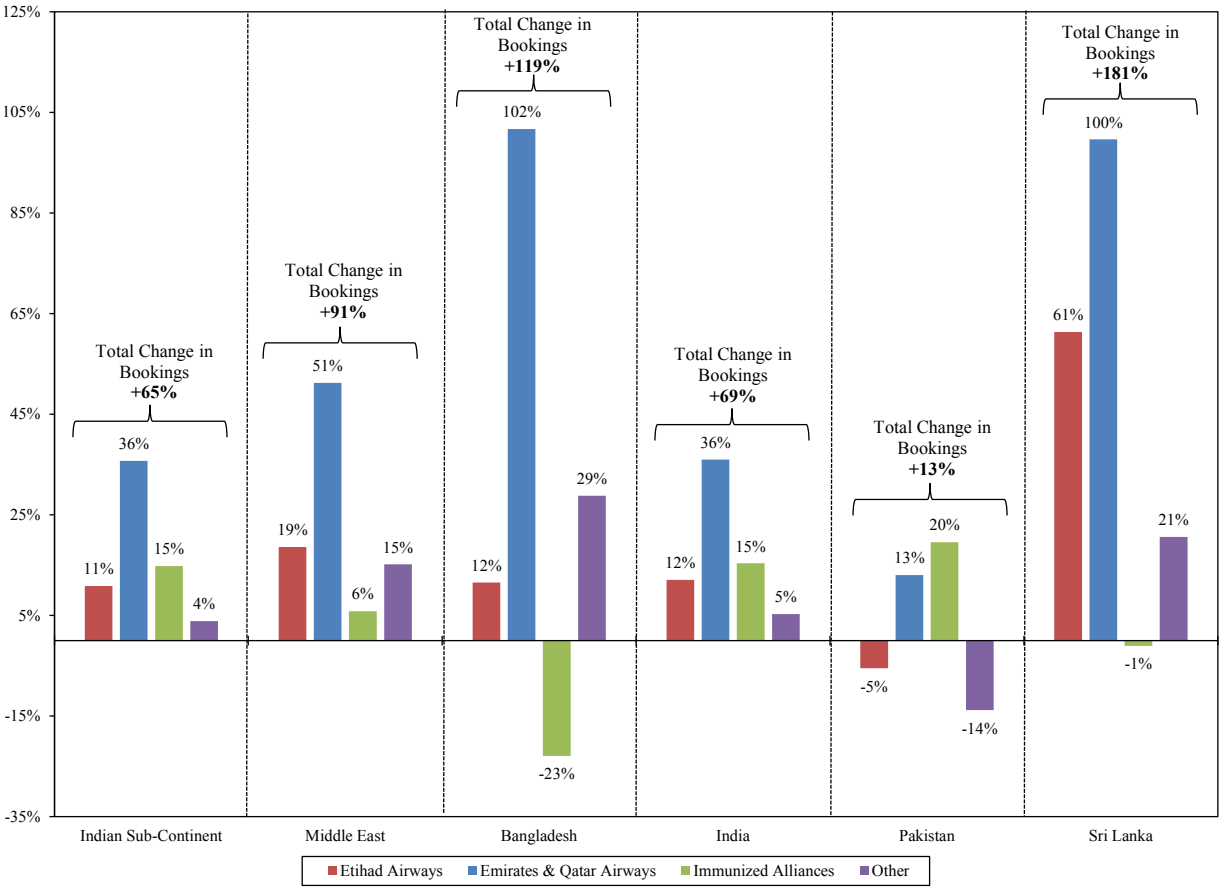
[4] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases. *See* footnote 3, above.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

16. **Exhibit 4** provides a summary which shows the portion of the overall premium class growth on these routes served by each carrier.

EXHIBIT 4
SERVED SHARE OF OVERALL GROWTH IN VOLUME OF TRAVEL
BETWEEN UNITED STATES AND KEY REGIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] This analysis compares total travel volume between March 2014 and February 2015 to the total travel volume between March 2009 and February 2010.

[2] **Indian Sub-Continent** includes Bangladesh, India, Pakistan, and Sri Lanka. *Other carriers* include, among others, Air India, Cathay Pacific, Jet Airways, Turkish Airlines, Kuwait Airways, Pakistan International Airlines, Singapore Airlines, Air China, China Southern Airlines, and Saudi Airlines.

Middle East includes Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen, and United Arab Emirates.

Other carriers include, among others, Saudi Arabian Airlines, Turkish Airlines, Gulf Air, Kuwait Airways, EgyptAir, Aeroflot, Jet Airways, and Cathay Pacific.

[3] Traffic flows are non-directional. Numbers may not add up due to rounding.

[4] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases. *See* footnote 3, above.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

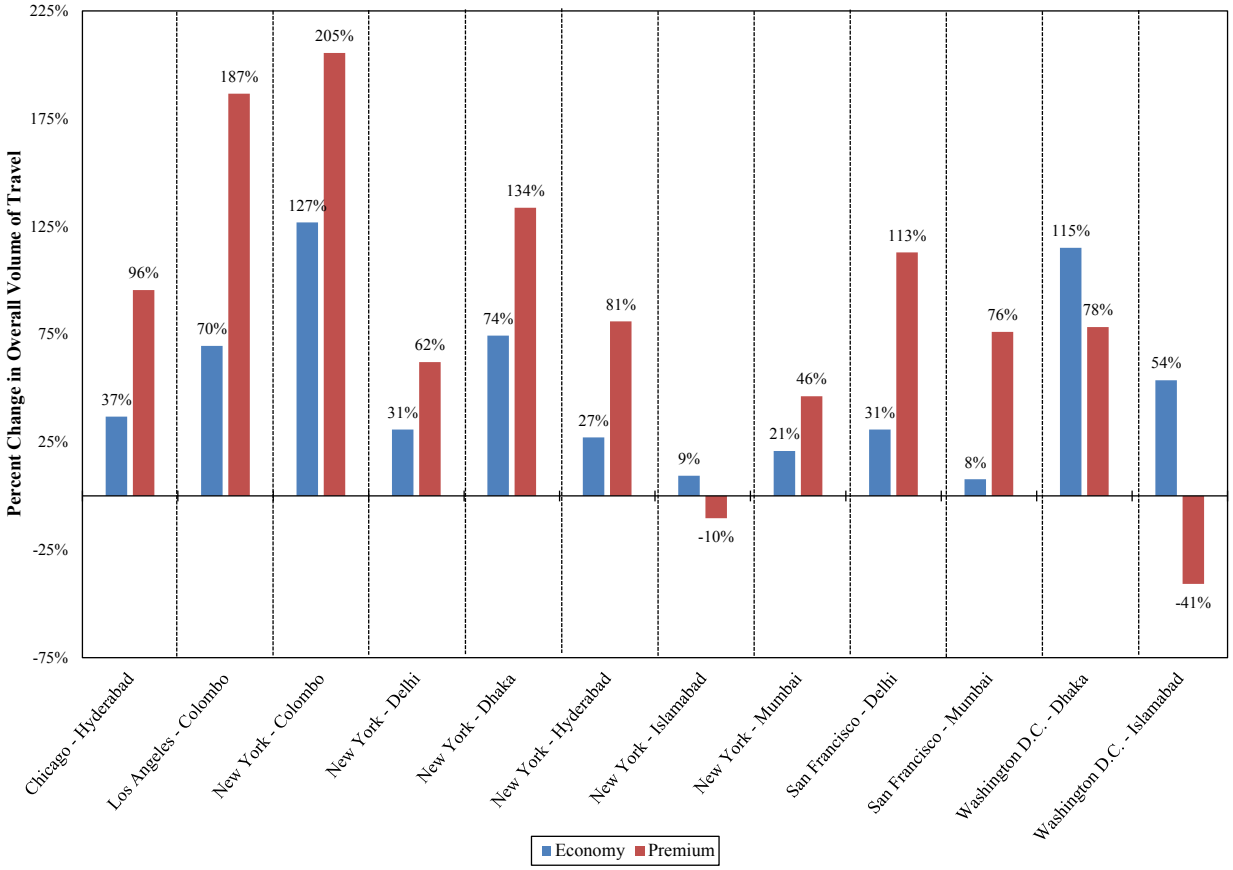
17. Some notable findings from these analyses are:[20]

- Economy cabin travel between the U.S. and ISC increased by 33 percent from 2009 to 2014. Premium cabin travel increased by 65 percent over the same period.
- Economy cabin travel between the U.S. and the Middle East increased by 54 percent from 2009 to 2014. Premium cabin travel increased by 91 percent over the same period.
- Members of the Immunized Alliances served 7 percent of the growth in U.S. to ISC traffic relative to total volume of travel in 2009, driven primarily by increases in traffic served to India and Pakistan.
- Gulf carriers have served a substantial portion of the growth in volume of traffic between the U.S. and Sri Lanka—e.g., Etihad alone served 42 percent of the increase in the overall economy class traffic volume on this route relative to 2009. However, members of the Immunized Alliances have offered little or no service on these routes.

18. **Exhibit 5** summarizes the growth of the overall volume of economy and premium class travel on key routes between the U.S. and ISC.

[20] It is our understanding that much of Etihad's premium class traffic between U.S. and Pakistan is derived from U.S. government passengers. The corresponding drops in Etihad traffic and rises in the Immunized Carrier traffic are due to new U.S. carrier marketed fares on that route, as we understand that the U.S. government requires its personnel to use U.S. marketed fares if they are available.

EXHIBIT 5
GROWTH OF THE OVERALL VOLUME OF TRAVEL
ON KEY ROUTES BETWEEN UNITED STATES AND INDIAN SUB-CONTINENT
BY CABIN CLASS
2009 – 2014



Notes:

[1] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[2] Traffic flows are non-directional.

Source: MIDT.

19. Notably, some of the largest growth has been on routes in which there is little or no participation from members of Immunized Alliances. For example, between 2009 and 2014, (i) economy traffic on the New York to Colombo route grew by 127 percent, while premium traffic grew by 205 percent; (ii) economy traffic on the Los Angeles to Colombo route grew by 70 percent, while premium traffic grew by 187 percent; and (iii) economy traffic on the New York to Dhaka route grew by 74 percent, while premium traffic grew by 134 percent. Taken together, these analyses indicate that the claim made in the Open Skies Report that Etihad and other Gulf-based carriers "can continue to grow only by capturing

market share from other airlines" is unsupported by the facts.[21] Rather, these carriers also can grow and have been growing by serving the expanding overall volume of traffic between the U.S. and other countries.

VI. Assessment of Allegations Regarding Displacement of U.S. Carriers

20. In order to evaluate the claim that Gulf carriers "take passengers"[22] from U.S. carriers, we analyzed travel flow data from the MIDT system to assess each carrier's share of passengers traveling between the U.S. and destinations in the ISC. However, looking solely at changes in shares of total travel obscures the fact that in some instances, the U.S. carriers' losses in ***share of passengers*** were offset by the increase in their ***total number of passengers*** traveling on a certain route. That is, because of growing demand on a particular route, U.S. carriers may benefit from higher numbers of passengers, even if other carriers have a relatively larger share of the total traffic.[23]

21. **Exhibit 6** simultaneously illustrates the change between 2009 and 2014 in the Immunized Alliances' *total volume* of economy class traffic serviced between U.S. and key regions, as well as the change during that period in the Immunized Alliances' *share* of economy class traffic serviced. In this exhibit, circles centered above the horizontal axis represent routes where the Immunized Alliances *gained traffic* volume between 2009 and 2014; circles centered to the left of the vertical axis represent routes where the Immunized Alliances *lost share* of traffic volume between 2009 and 2014.

22. For example, a circle representing travel between U.S. and ISC is located in the upper-left quadrant of **Exhibit 6**, indicating that while the Immunized Alliance Members lost 4.4 percentage points of the overall volume of economy class traffic on this route between 2009 and 2014 (reducing their share from 40.7 to 36.3 percent), they actually serviced 18 percent (or over 223,000) *more passengers*.

23. Similar analyses for additional key routes between the U.S. and ISC, as well as a summary of the analyses, is attached as **Appendix B**.

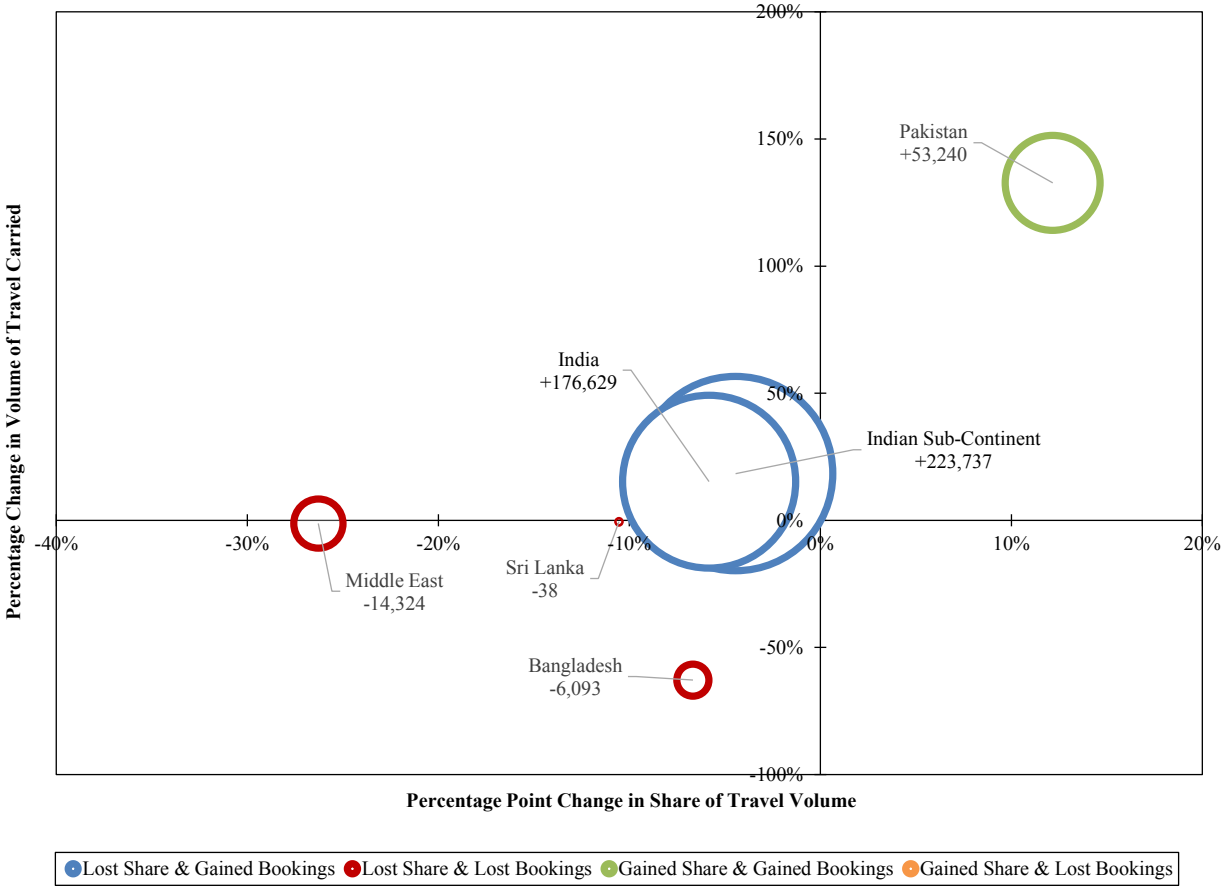
---

[21] *Restoring Open Skies*, p. 11.

[22] *Restoring Open Skies*, p. 2.

[23] This claim also fails to take into account external factors that may be responsible for certain carriers choosing to limit or terminate service on certain routes in the region, such as armed conflicts or other security concerns. The assessment of these factors, none of which were addressed in the Open Skies Report, are beyond the scope of our analysis.

EXHIBIT 6
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN UNITED STATES AND KEY REGIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases. *See* footnote 3, above.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] **Indian Sub-Continent** includes Bangladesh, India, Pakistan, Sri Lanka, and Nepal.

Middle East includes Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen, and United Arab Emirates.

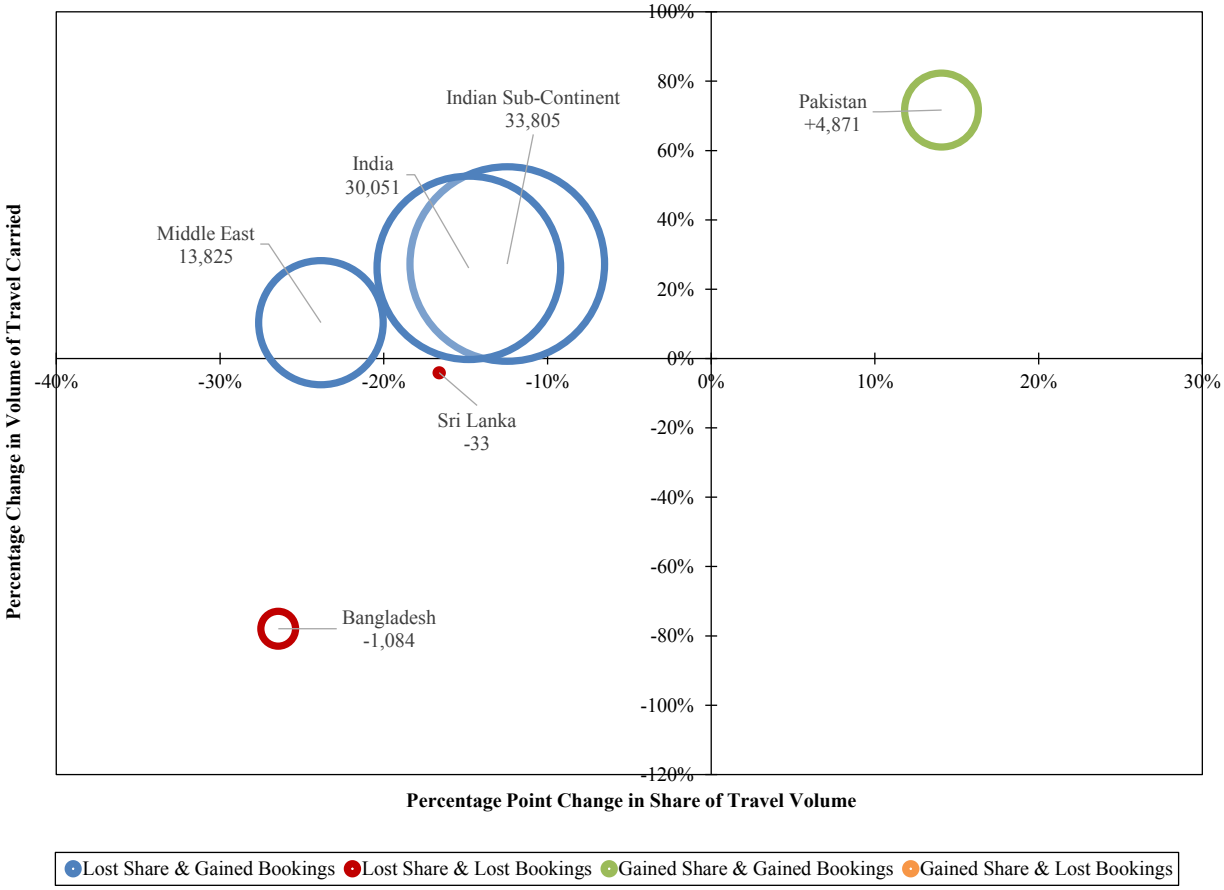
[4] Traffic flows are non-directional. The value on the chart represents the differences in traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

24. **Exhibit 7** illustrates a similar analysis of premium class traffic, showing the change between 2009 and 2014 in the Immunized Alliances' *total volume* of traffic between U.S. and key regions, as well as the change during that period in the Immunized Alliances' *share* of premium class traffic.

EXHIBIT 7
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN UNITED STATES AND KEY REGIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases. *See* footnote 3, above.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] **Indian Sub-Continent** includes Bangladesh, India, Pakistan, Sri Lanka, and Nepal.

Middle East includes Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen, and United Arab Emirates.

[4] Traffic flows are non-directional. The value on the chart represents the differences in traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

25. Some notable findings from these analyses are that while the Immunized Alliances:

- lost 4.4 percentage points of the overall volume of economy class traffic on the U.S.-ISC route between 2009 and 2014 (reducing their share from 40.7 to 36.3 percent), they actually serviced 18 percent (or over 223,000) *more passengers*.
- lost 12.5 percentage points of the overall volume of premium class traffic on the U.S.-ISC route between 2009 and 2014 (reducing their share from 54.3 to 41.8 percent), they actually serviced 27 percent (or over 33,000) *more passengers*.
- lost 23.8 percentage points of the overall volume of premium class traffic on the U.S.-Middle East route between 2009 and 2014 (reducing their share from 56.5 to 32.7 percent), they actually serviced 10 percent (or over 13,000) *more passengers*.

VII. ASSESSMENT OF HISTORICAL PUBLISHED FARE TRENDS ON KEY ROUTES

26. Pricing in the airline industry is highly complex, both because of the (i) varied arrangements that exist among American and European carriers that allow them to jointly operate international flights on certain North Atlantic routes with immunity from applicable antitrust laws, and (ii) carriers' individual strategic decisions about on which routes to offer service *and* the manner in which to offer such service (i.e., "online," codeshare, or bilateral commercial agreement).[24] For example, our understanding is that in instances in which two carriers have a codeshare or bilateral commercial agreement, the fare for the entire trip (either non-stop or with connections) is likely to be more competitive relative to the fares charged separately by carriers for the individual segments of the trip. In contrast, some carriers may simply publish fares without issuing rules that limit the eligible airlines or routings (this is called a non-restricted industry type fare). In these instances, the publishing carrier does not have a codeshare or bilateral commercial agreement with the connecting carrier, and therefore simply "adds on" the connecting carrier's segment fare, resulting in a less competitive total fare.

27. Our analysis is limited to those fares on which (i) one carrier serves the entire route (i.e., the "online" carriers), (ii) the carriers that serve the route are party to a codeshare agreement, or (iii) the carriers that serve the route are party to a bilateral commercial agreement.[25] In order to identify the relevant carriers on each route, we have relied on an analysis of bookings data and discussions with Etihad's personnel. Including non-restricted industry type fares (i.e., instances where carriers "add on"

[24] A Special Prorate Agreement ("SPA") is an example of a bilateral commercial agreement.

[25] Our understanding, based on discussions with Etihad's pricing personnel, is that by publishing non-restricted industry type fares for routes on which they do not have a codeshare or interline agreements, carriers affirmatively chose not to offer a fare that is *competitive* with those published by carriers that do have commercial agreements. As a result, these non-commercial fares are not included for the purposes of our analysis.

the connecting carrier's segment fare) that do not meaningfully compete with those types of traffic would provide an overly broad range of fares.[26]

A. Analysis of Published Fares on Key Routes Between the United States and the Indian Subcontinent

28. We have developed a series of analyses which compare Etihad's published fares between its U.S. gateway cities and key destinations in the ISC to fares published by other carriers on these routes. For each of the key routes,[27] we have compared Etihad's median published economy cabin fares to the median published economy cabin fares of each carrier that operates on that route in one of the three ways described above (distinguishing between fares offered by members of Immunized Alliances from those offered by other carriers).[28]

29. **Exhibit 8** presents an illustration of this analysis for published fares on the route between New York and Delhi. As this exhibit shows, Etihad's published fares are at the high end of the range for some parts of the period, and at the low end for others. For example, in the two years since April 2013**,** Etihad's fare on this route has been on average (i) $47 (or 3 percent) *lower* than the route median fare published by the U.S. and foreign Immunized Alliance members; and (ii) $194 (or 11 percent) *higher* than the route median fare published by non-immunized carriers.

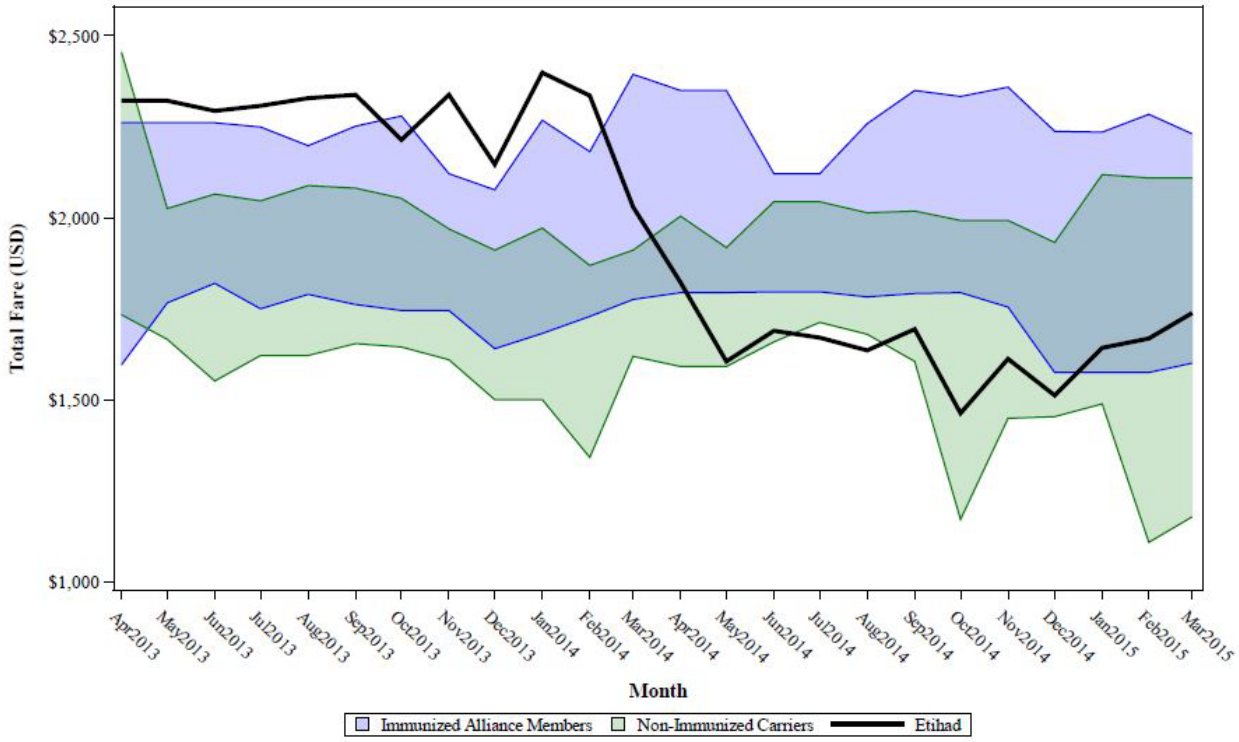
Similar analyses for each of the 12 key U.S.-ISC routes are attached as **Appendix C**.

[26] It is our understanding that the authors of the Open Skies Report have not alleged the existence of predatory pricing by Etihad and other Gulf-based carriers, and we have not performed a predatory pricing analysis to determine whether Etihad priced its services below its average variable costs. (Our understanding is that predatory pricing in the airline industry has previously been at issue in *United States of America v. AMR Corporation, American Airlines, Inc., and AMR Eagle Holding Company*. *See* http://www.justice.gov/atr/cases/f8100/8134.htm, Accessed May 20, 2015)

[27] The 12 key routes include JFK-DEL, SFO-DEL, JFK-BOM, SFO-BOM, JFK-ISB, IAD-ISB, JFK-DAC, IAD-DAC, JFK-CMB, LAX-CMB, ORD-HYD, and JFK-HYD.

[28] We have used bookings volume data from MIDT to identify and exclude from the analysis instances where carriers publish fares on routes they do not generally operate. Additionally, for the purposes of consistency, published Premium Economy fares are not included in our analysis.

EXHIBIT 8
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON NEW YORK CITY TO DELHI ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance members included in this analysis are American, Delta, United, British Airways, KLM, and Lufthansa. Etihad's fare was on average $47 (or 3%) lower than the median offered by these carriers.

[2] Non-Immunized carriers included in this analysis are Emirates, Qatar Airways, Air India, and Turkish Airways. Etihad's fare was on average $194 (or 11%) higher than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to U.S. dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

30. **Exhibit 9** presents a summary of our pricing analyses across the 12 key U.S.-ISC routes.

EXHIBIT 9
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON FLIGHTS BETWEEN KEY UNITED STATES AND INDIAN SUB-CONTINENT DESTINATIONS
APRIL 2013 – MARCH 2015

	Immunized Alliance Members[1]			Non-Immunized Carriers[2]		
	Average of Monthly Fares	Average of Etihad's Price Difference from Median Competitor		Average of Monthly Fares	Average of Etihad's Price Difference from Median Competitor	
Route	On Route[3]	Percent	Dollars	On Route[3]	Percent	Dollars
[a]	[b]	[c]	[d]	[e]	[f]	[g]
New York to Delhi	$2,011	-3%	-$47	$1,770	11%	$194
San Francisco to Delhi	$1,778	-5%	-$82	$1,857	-9%	-$161
New York to Mumbai	$2,031	-7%	-$136	$1,707	11%	$189
San Francisco to Mumbai	$1,841	-8%	-$154	$1,873	-10%	-$186
New York to Hyderabad	$1,891	5%	$99	$1,850	7%	$140
Chicago to Hyderabad	$2,013	-1%	-$17	$2,028	-2%	-$31
New York to Islamabad	$2,024	-7%	-$139	$1,833	3%	$52
Washington to Islamabad	$2,101	-19%	-$393	$1,755	-3%	-$47
New York to Dhaka	--	--	--	$1,787	5%	$100
Washington to Dhaka	$2,680	-26%	-$704	$1,817	9%	$159
New York to Colombo	$2,156	-11%	-$228	$1,924	0%	$4
Los Angeles to Colombo	--	--	--	$1,540	13%	$197

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases. *See* footnote 3, above.

[2] Non-Immunized carriers included in this analysis are Emirates, Qatar Airways, Air India, and Turkish Airways.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to U.S. dollars. Premium Economy fares are not included in the analysis.

[4] Immunized Alliance Members did not offer flights on the New York to Dhaka and Los Angeles to Colombo routes during this period.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

31. Some notable findings from these analyses are:

- Immunized Alliance carriers do not offer flights from New York to Dhaka or from Los Angeles to Colombo. On these routes, Etihad's published fares are higher than the medians of the fares published by non-immunized carriers.
- Etihad began operating out of SFO in November 2014. In the five months since then, its published fares to Mumbai and Delhi have been the lowest relative to non-immunized carriers on the 12 key routes, which is not unusual for a new route under development.[29]

[29] We understand this to be the case based on discussions with Etihad.

- Etihad's published fares on the New York to Hyderabad route have been higher than the median published by other carriers, including members of Immunized Alliances. Its published fares from Chicago to Hyderabad have been essentially the same as both immunized and non-immunized carriers.

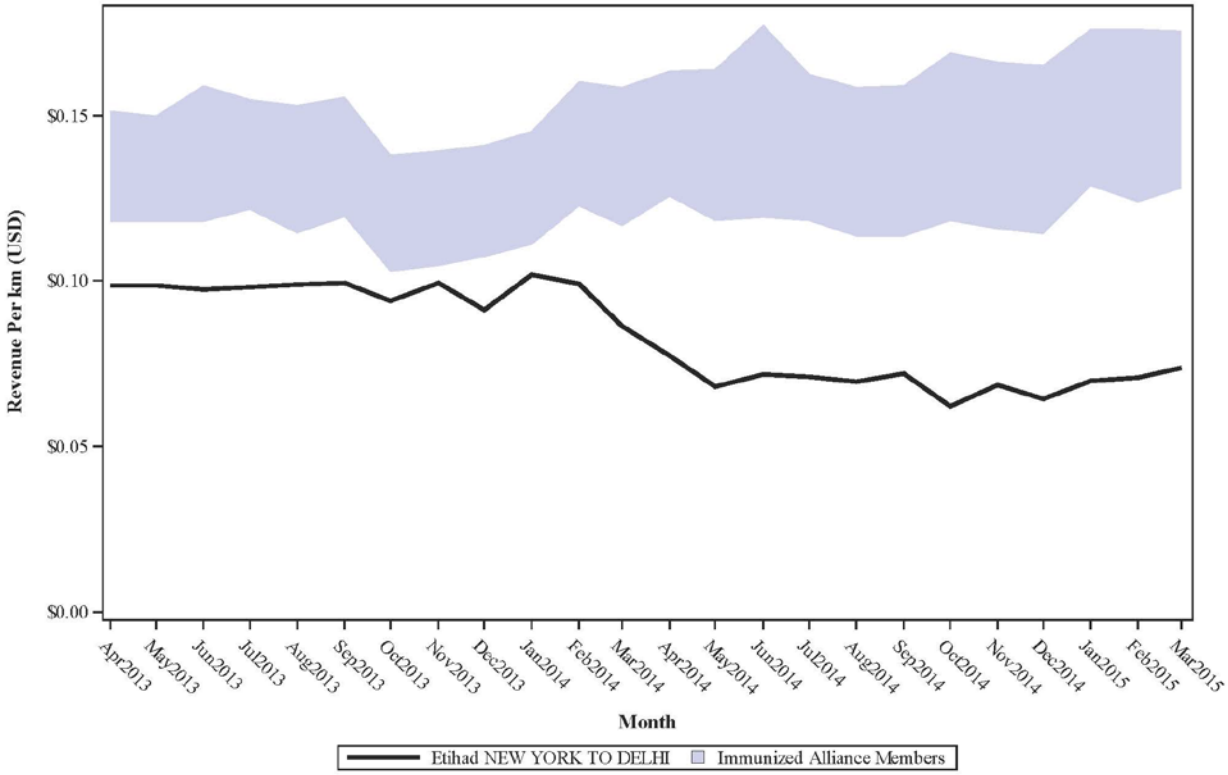
B. Benchmarking Etihad's U.S.-ISC Published Fares to Those of Carriers on Other International Routes

32. We have also been asked by Etihad to develop an analysis comparing Etihad's published fares on routes between the U.S. and ISC, which rely on comparing Etihad's U.S. to ISC revenue per kilometer ("RPK") to RPK on routes where Etihad does not offer service. While—as noted above—pricing in the airline industry is highly complex, we developed this benchmarking analysis to conduct an initial assessment of how pricing may differ between routes where Etihad operates and ones that are not affected by the allegations against Etihad and other Gulf carriers.

33. The benchmarking group includes transatlantic routes operated by the Immunized Alliances (including United, Delta, American, British Airways, Lufthansa, and Air France-KLM). For each of the 12 key U.S.-ISC routes, we calculated Etihad's median published economy class RPK in each month and compared that series to the median published per-kilometer economy fares of the immunized carriers on transatlantic routes that originated in the same U.S. gateway.

34. For example, **Exhibit 10** shows a comparison of per-kilometer published fares on Etihad's flights from New York to Delhi and those on transatlantic routes originating from New York operated by members of antitrust-immunized alliances. Similar analyses for each of the 12 key U.S.-ISC routes are attached as **Appendix D**.

EXHIBIT 10
ETIHAD REVENUE PER KILOMETER ON NEW YORK TO DELHI ROUTE
COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUE PER KILOMETER
FROM NEW YORK TO FRANKFURT, LONDON, AND PARIS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to U.S. dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, KLM, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: NYC-FRA, NYC-LON, NYC-PAR.

[3] There are 7 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 70% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

Notably, Immunized Alliance Members' RPK on *transatlantic* routes where coordination between U.S. and foreign carriers is allowed by way of antitrust immunity conferred by the U.S. government were 69 to 120 percent *higher* than Etihad's median RPKs on routes between the U.S. and ISC.

VIII. ASSESSMENT OF U.S. CARRIERS' INTERNATIONAL TRAFFIC PATTERNS

35. Our analysis of pricing on transatlantic routes in the previous section—together with the fact that price coordination between the respective U.S. and foreign carriers is allowed by way of antitrust immunity conferred by the relevant antitrust and competition regulators—suggests that the shorter transatlantic flights may be generally more valuable for the Immunized Alliance members than other (longer) routes in their networks. As a result, because U.S. carriers and their European partners have the option of allocating their resources between these routes and others, it is instructive to consider how U.S. carriers allocate their capacity across the networks they serve.

36. By entering into partnerships with flagship European carriers that are immunized from antitrust laws, American Airlines, Delta Air Lines, and United Airlines have structured their businesses in such a way that a substantial portion of their international traffic passes through Europe; specifically, through the hub airports of their respective European partners. The result of this arrangement—in which each U.S. carrier directs substantial traffic through their single respective European hub—is that a single transatlantic flight may have passengers who eventually travel to a broad range of final destinations. For example, on an United flight from the U.S. to Frankfurt:

- a portion of the passengers will terminate their trip in Frankfurt;[30]
- some may continue to other European destinations; and
- others still may continue on to Africa, Asia, or the ISC.

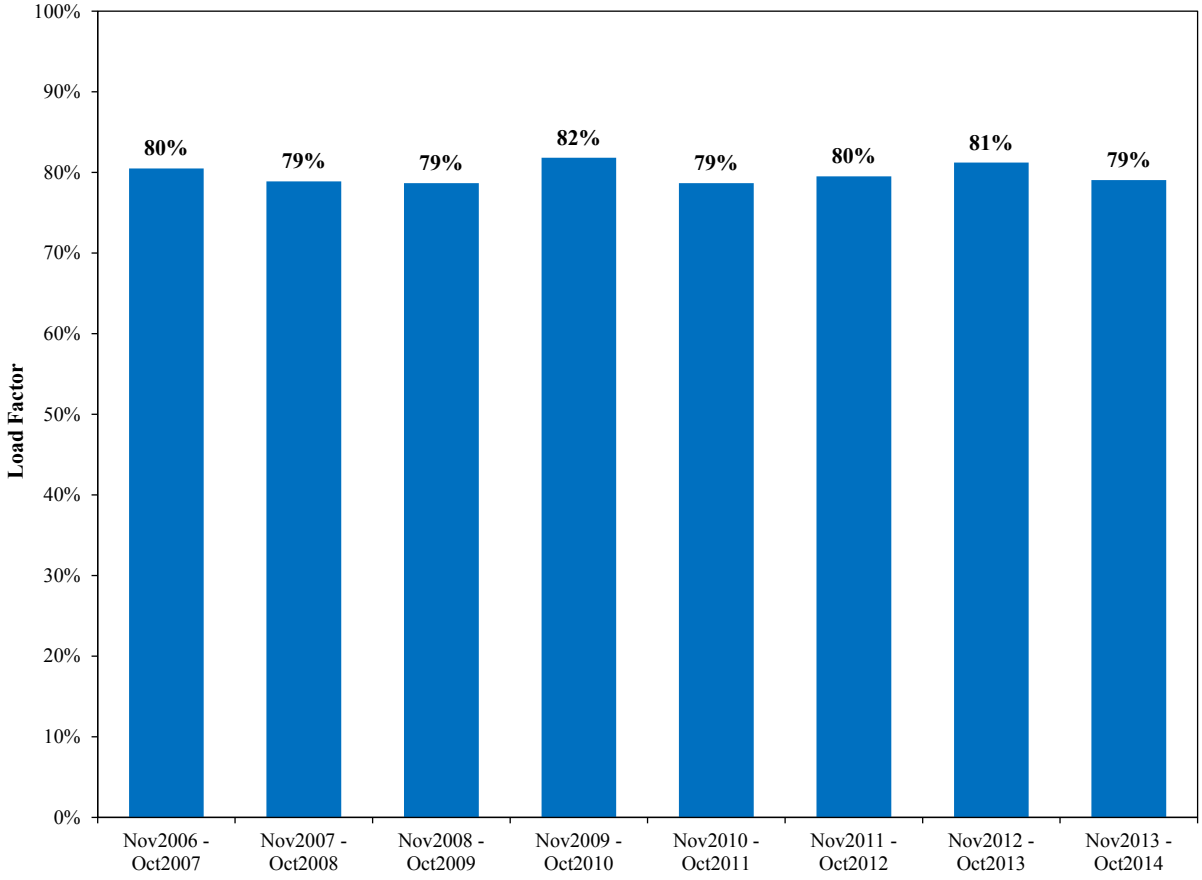
This means that there is a scarcity of passenger capacity, and carriers must decide which mix of passengers will most profitably fill a particular transatlantic flight. As a result, U.S. passengers looking to travel to the ISC may find a dearth of options available from the U.S. carriers if those carriers can fill their planes with passengers who seek to travel only to the European hub, or continue to a destination other than the ISC.

37. Our analysis of U.S. Department of Transportation data indicates that over the last several years, U.S. carriers' load factors (a measure of capacity utilization) on travel between the U.S. and their

[30] Similarly, (i) some passengers on a particular Delta flight from the U.S. may only be interested in the direct travel to Paris, while others may be connecting to a destination beyond the Air France hub, and (ii) some passengers on a single American Airlines flight from the U.S. may only be interested in the direct travel to London, while others may be connecting to a destination beyond the British Airways hub.

antitrust-immunized partners' hubs have been generally stable. For example, as **Exhibit 11** shows, since 2007, the combined load factors of Delta, American, and United on these routes remained at approximately 80 percent. This means that there has been high demand for U.S. carriers' transatlantic services relative to the capacity those carriers have allocated to that segment.

EXHIBIT 11
AGGREGATE LOAD FACTORS FOR DELTA, AMERICAN, AND UNITED AIRLINES
BETWEEN THE UNITED STATES AND AMSTERDAM, FRANKFURT, LONDON, AND PARIS
NOVEMBER 2006 – OCTOBER 2014

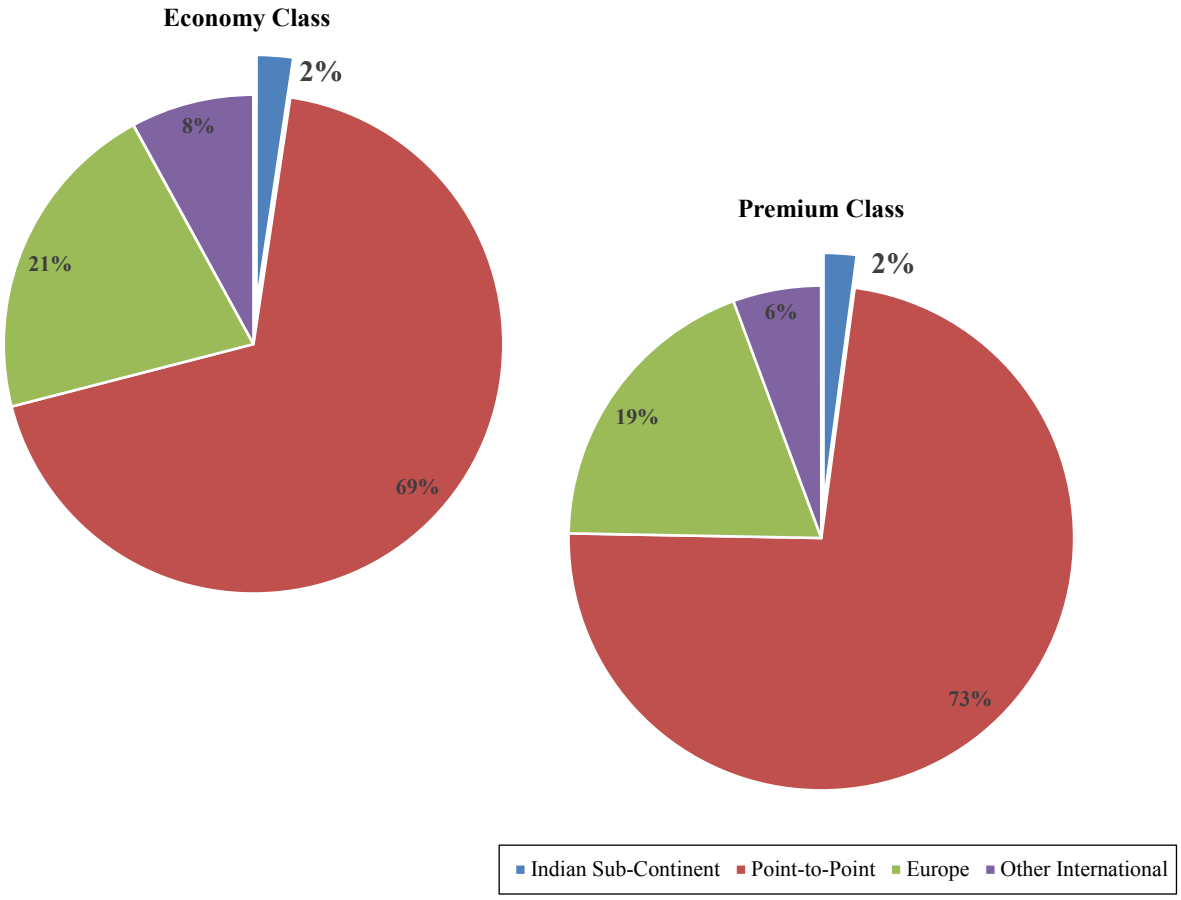


Source: U.S. DOT Bureau of Transportation Statistics, Air Carrier Statistics: T-100 International Segments.

38. Given the high load factors, it stands to reason that a revenue-optimizing U.S. carrier would set its fares for travel to the ISC in such a way that the marginal ISC-bound passenger would only displace a valuable Europe-bound passenger on a transatlantic route if the fare for the U.S.-ISC trip is sufficiently high. As **Exhibit 12** shows, approximately 70 percent of the U.S. carriers' economy and premium class traffic originating in the U.S. and passing through the hub cities of their European partners terminates after the flight to the hub city. Similarly, approximately 20 percent of U.S. carriers' economy and premium class traffic originating in the U.S. and passing through the hub cities of their European partners

continues to destinations elsewhere in Europe. In fact, of the total traffic U.S. carriers have sent through the hub cities of their immunized European partners in the most recent 12 months, only 2 percent of each economy and premium class has been ultimately destined for the ISC.

EXHIBIT 12
DELTA, AMERICAN, AND UNITED AIRLINES' CONNECTING VS. POINT-TO-POINT TRAFFIC ON FLIGHTS FROM THE UNITED STATES TO/THROUGH KEY EUROPEAN CITIES
MARCH 2014 – FEBRUARY 2015



Notes:

[1] Key European Cities include London, Paris, Frankfurt, and Amsterdam.

[2] Indian Sub-Continent includes Bangladesh, Bhutan, India, Maldives, Nepal, Sri Lanka, and Pakistan.

Sources:

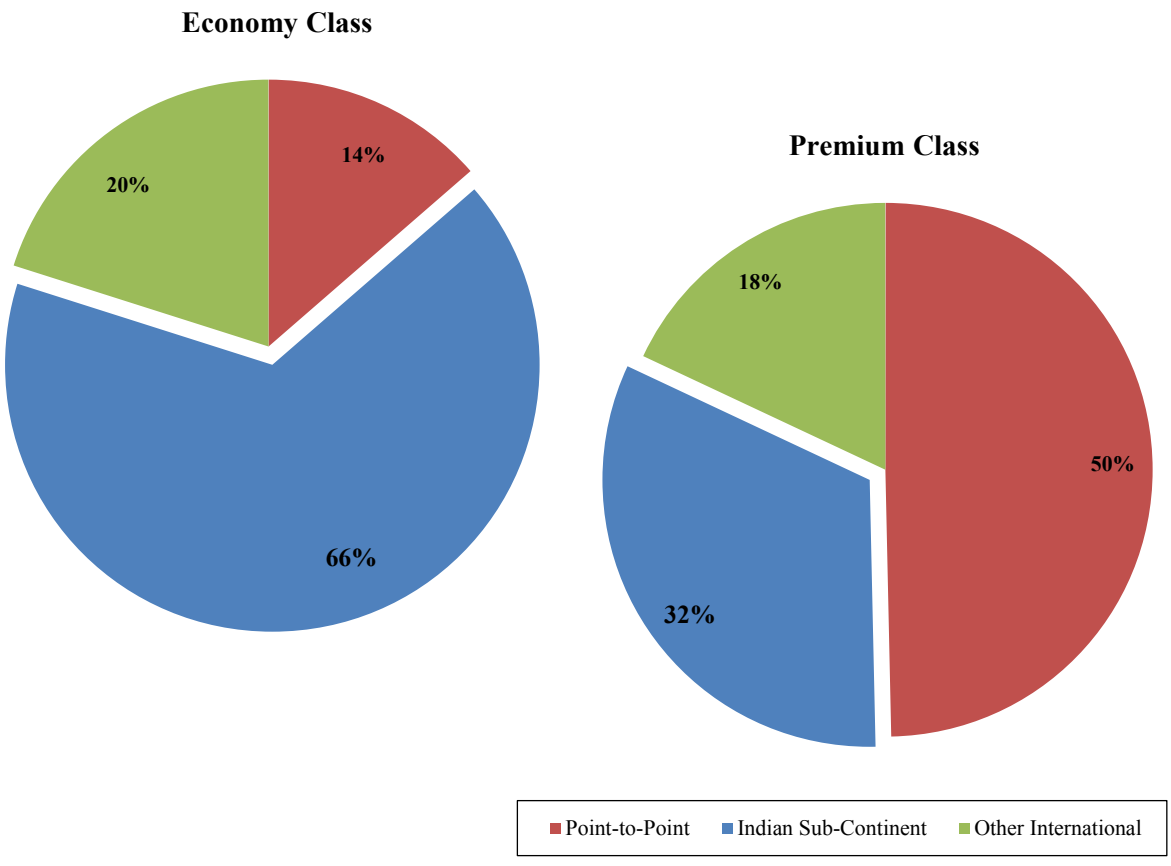
MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

39. The allocation of U.S. carriers' capacity shown in **Exhibit 12** is consistent with the discussion above. That is, for U.S. carriers, traffic to the hub cities of their respective European partners is most valuable on an RPK basis, because of their antitrust-immune arrangements, as well as because those trips are both direct and shorter. The connections to other regions (including the ISC) are relatively less

valuable. As a result, because of the value of direct and intra-Europe flights, there is little "displacement" of those passengers by those wanting to go from U.S. to the ISC.

40. Etihad's network is different. While hundreds of thousands of passengers fly every year between the U.S. and its hub in Abu Dhabi, Etihad's passenger flow generally continues *beyond* its domestic hub, primarily to the ISC. As **Exhibit 13** shows, while 14 percent of Etihad's economy class traffic between March 2014 and February 2015—the latest 12 months for which data are currently available—terminated in Abu Dhabi, 66 percent proceeded beyond its hub to the ISC. Similarly, while 50 percent of Etihad's premium class traffic during this period terminated in Abu Dhabi, an additional 32 percent proceeded beyond to the ISC.

EXHIBIT 13
ETIHAD'S CONNECTING VS. POINT-TO-POINT TRAFFIC
ON FLIGHTS FROM THE UNITED STATES TO/THROUGH ABU DHABI
MARCH 2014 – FEBRUARY 2015



Note: Indian Sub-Continent includes Bangladesh, India, Maldives, Nepal, Sri Lanka, and Pakistan.
Source: MIDT.

41. In summary, the business model U.S. carriers have chosen gives them relatively little incentive to carry international traffic beyond Europe to the ISC (or even beyond the hub cities of their respective European partners). To the contrary, Etihad's model focuses on getting U.S. consumers not just to Abu Dhabi (where U.S. carriers choose to not fly directly) but also to the Indian Subcontinent. As a result, by focusing their transatlantic operations on travel to Europe (to the extent that only 2 percent of Europe-bound U.S. traffic terminates in the ISC) U.S. carriers have signaled that the portions of their networks beyond Europe are not as valuable to them as those segments and routes on which they have valuable government-conferred antitrust immunity and/or competition law exemptions.

IX. ASSESSMENT OF ALLEGATION THAT CAPACITY GROWTH EXCEEDS GLOBAL GDP GROWTH

42. The Open Skies Report states that Etihad and the other Gulf-based carriers are "adding […] new capacity at rates that substantially exceed global GDP growth—which drives growth in demand for air transport services."[31] As a result, the Open Skies Report claims, "the only way to accomplish this feat is to continue taking passengers from other countries' carriers."[32] Putting aside the notion that "taking passengers from other countries' carriers"[33] is consistent with precisely the kind of competitive process that benefits consumers, the analysis presented in Figure 20 of the Open Skies Report relies on inappropriate data and flawed economic reasoning.

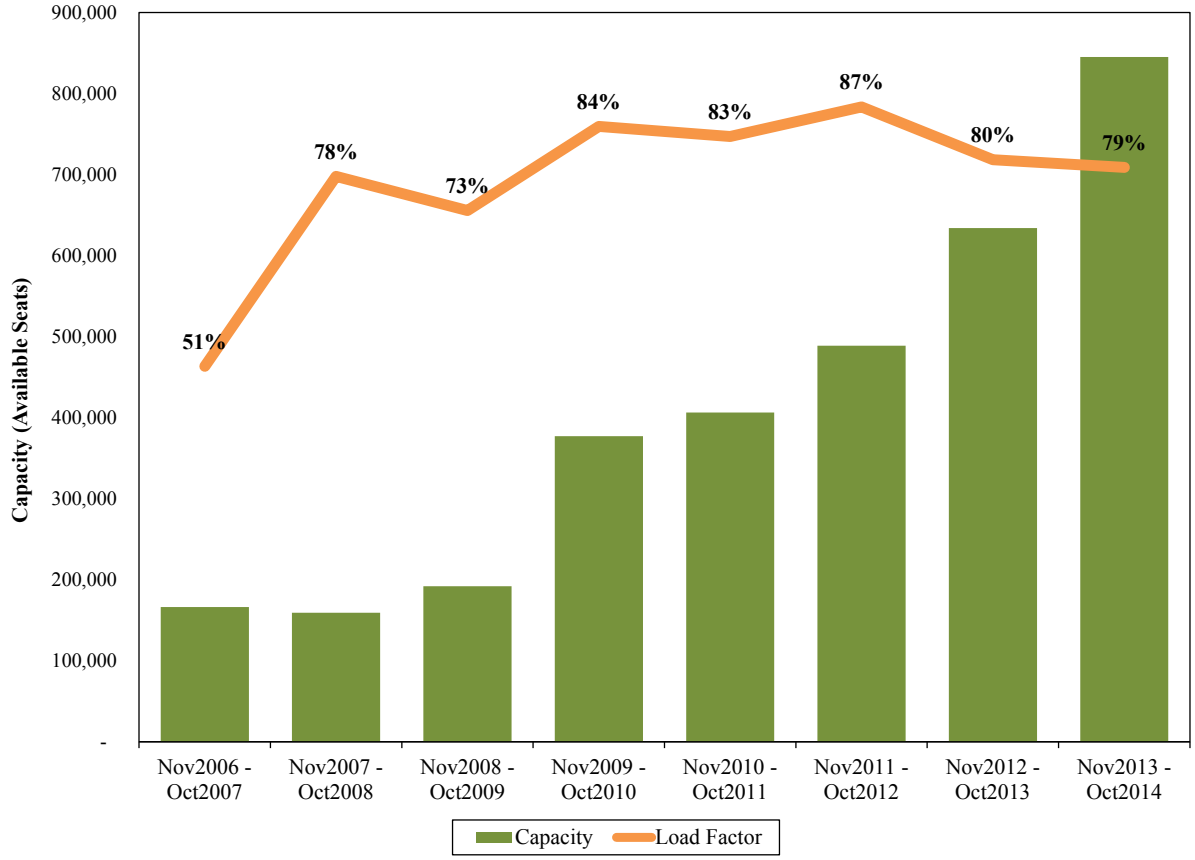
43. As an initial matter, an analysis of U.S. Department of Transportation data indicates that while Etihad has increased the number of available seats on flights between the U.S. and its hub in Abu Dhabi, its load factors have remained around 80 percent. For example, as **Exhibit 14** shows, while Etihad increased the annualized number of total seats flown between U.S. and Abu Dhabi from 192,000 in 2009 to 845,000 in 2014, the load factor actually *increased* (and was at or above 80 percent in the intermittent years).

[31] *Restoring Open Skies*, p. 41.

[32] *Ibid*.

[33] *Ibid*.

EXHIBIT 14
ETIHAD'S ANNUALIZED CAPACITY AND LOAD FACTOR
ON FLIGHTS BETWEEN THE UNITED STATES AND ABU DHABI
NOVEMBER 2006 – OCTOBER 2014



Source: U.S. DOT Bureau of Transportation Statistics, Air Carrier Statistics: T-100 International Segments.

44. Further, the forward-looking analysis of supposedly "excessive expansion" by Etihad and the other Gulf-based carriers in the Open Skies Report essentially relies on a comparison of projected global Gross Domestic Product ("GDP") growth between 2012 and 2020 to the growth rate of capacity for those carriers during the same period. That is, the annual 3 percent growth in global GDP appears to the authors of the Open Skies Report to be too low to justify the 11 percent annual growth in the capacity of Gulf-based carriers.[34]

[34] The estimates of capacity growth are from a thesis submitted by a student in MIT's Master of Science in Transportation program. (Karim Al-Sayeh, *The Rise of the Emerging Middle East Carriers: Outlook and Implications for the Global Airline Industry*, Massachusetts Institute of Technology, June 2014.) We have not independently verified these estimates and do not represent that they are consistent with Etihad's (or the other Gulf carriers') own expectations about capacity growth. Rather, they are used here for the purpose of illustrating the underlying flaws of the analysis presented in the Open Skies Report.

45. This comparison is fatally flawed as a matter of economics for a number of reasons. First, the worldwide measure of GDP provides little information about demand growth in areas where Gulf carriers' U.S.-based traffic *actually goes*. In fact, as discussed above, a substantial portion of Etihad's U.S. traffic currently goes to (or from) the ISC and Southeast Asia. As a result, it is the expected growth demand of these regions—as opposed to worldwide demand—that is relevant for such an analysis.

46. Additionally, the analysis presented in the Open Skies Report entirely ignores the economic concept of *income elasticity of demand*, i.e., the relationship between changes in income and changes in the quantity demanded of a particular good, as represented by the formula below.[35]

$$Income\ Elasticity\ of\ Demand = \frac{\%\ Change\ in\ Demand}{\%\ Change\ in\ Income}$$

47. For example, if a 1 percent increase in income is expected to lead to a 2 percent increase in demand for air travel, the elasticity of demand equals 2.0; in this case, the demand for air travel is said to be *elastic*. Similarly, if demand for air travel is not particularly sensitive to changes in income (e.g., a 1 percent change in income leads to only a 0.5 percent increase in demand, for an elasticity of 0.5), the demand is said to be *inelastic*. As a result, without applying this metric—which measures customers' varied preference for different goods—a direct comparison of GDP growth to capacity expansion has no useful economic meaning.

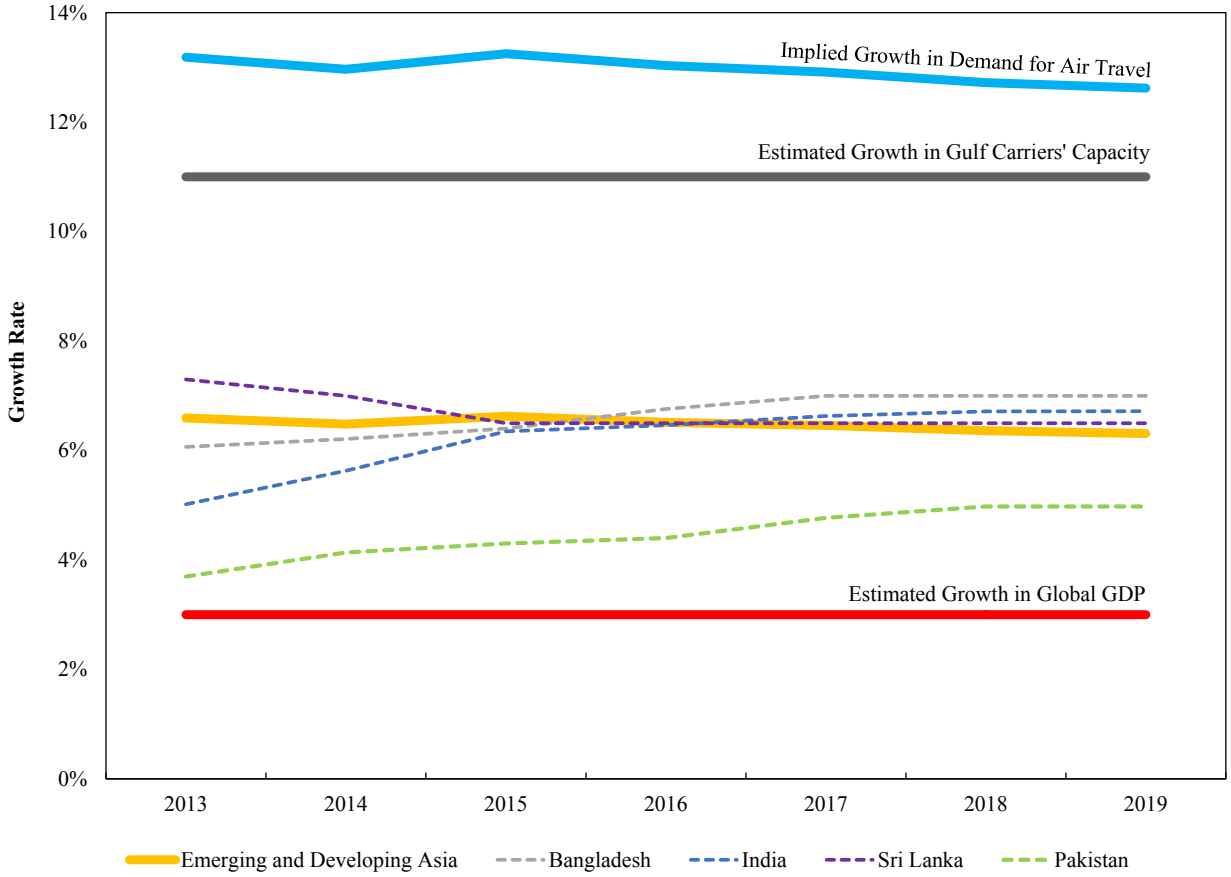
48. A number of economic studies have analyzed income elasticity of demand for air travel services. For example, a study by the IATA estimated that long-haul demand elasticities in developing countries—where Etihad conducts a substantial portion of its business—were approximately 2.0;[36] i.e., demand for air travel would increase by 2 percent for every 1 percent increase in national income.

Exhibit 15, below provides a revised version of the analysis presented in Figure 20 of the Open Skies Report.

[35] Nicholson, Walter, and David C. Stapleton. *Microeconomic theory: basic principles and extensions*, 2002, p. 178.

[36] IATA, *Air Travel Demand*, IATA Economics Briefing No. 9, April 2008, Table 2.

EXHIBIT 15
REVISED ANALYSIS OF "GDP VERSUS AIRLINE CAPACITY GROWTH RATES"
FROM FIGURE 20 OF THE OPEN SKIES REPORT



Notes:

[1] "Emerging and Developing Asia" is composed of 29 countries, including Bangladesh, India, Indonesia, Malaysia, Nepal, Philippines, Sri Lanka, Thailand, and Vietnam.

[2] "Implied Growth in Demand for Air Travel" is calculated by multiplying the GDP growth for "Emerging and Developing Asia" by an income elasticity of demand of 2.0.

Sources:

International Monetary Fund, World Economic Outlook Database, October 2014.

IATA, *Air Travel Demand*, IATA Economics Briefing No. 9, April 2008.

Restoring Open Skies Report, citing to: Karim Al-Sayeh, *The Rise of the Emerging Middle East Carriers: Outlook and Implications for the Global Airline Industry*, Massachusetts Institute of Technology, June 2014.

49. First, as this exhibit shows, the GDP in developing Asian economies (illustrated in the exhibit with an orange line)—where Etihad and the other Gulf carriers focus their U.S.-based traffic—is projected to grow at rates more than double those of the worldwide average (represented by the red line). Economic growth in individual countries on the ISC such as India, Bangladesh, Sri Lanka, and Pakistan (represented in the exhibit by dashed lines) generally have projected growth rates similar to the regional average. As a result, using the economic growth projections in the relevant region, combined with the

appropriate elasticity factor of 2.0, the implied growth in demand for air travel services (represented in the exhibit by the blue line) is actually *greater* than the Gulf carriers' estimated capacity expansion.

50. It is important to note that the explanation above is intended to illustrate the flawed and incomplete analysis presented in the Open Skies Report, rather than express a definitive view on the "correct" level of expansion. However, even with the revisions presented above, such a simplistic approach may fail to address other factors that may drive strategic decisions with respect to capacity expansion. For example, one issue the Open Skies Report fails to consider is the possibility of pent-up demand in the ISC. That is, in addition to expected future growth, capacity expansion may be planned to address the surplus demand that *already* exists in regions historically underserved by international carriers.[37] Other factors unrelated to economic growth may be relevant as well. For example, a 2013 report published by the U.S.-UAE Business Council identified "geographic centrality of the U.A.E" as "the most compelling"[38] factor for Gulf carriers' growth. Specifically, the report stated that "Dubai and Abu Dhabi are the new crossroads of the globe, perfectly situated to serve as connecting hubs for traffic moving between North America, South America, Europe and Africa to the west and south on one hand, and on the other the nearby Middle East, India and South Asia, China and the rest of East Asia, Southeast Asia, and Australia and New Zealand."[39] Additionally, this report noted "about 60 percent of the world's population lives within six flying hours of the U.A.E."[40] Taken together, potential pent-up demand and the "geographic centrality" of Etihad's hub illustrate the types of factors ignored by the simplistic comparison of capacity growth and global GDP growth presented in the Open Skies Report.

X. ASSESSMENT OF ANALYSES IN THE COMPASS LEXECON REPORT

51. In addition to assessing certain claims in the Open Skies Report, we have also been asked by Etihad to conduct an initial review of the analyses and claims presented in the Compass Lexecon Report.

---

[37] As described above, arrangements between U.S. and European carriers provide little incentive to send traffic beyond Europe to the ISC.

[38] U.S.-UAE Business Council, *U.S.-U.A.E. Commercial Aviation: Taking Flight*, 2013 ("*Taking Flight* Report*")*, p. 3. (Available at http://usuaebusiness.org/wp-content/uploads/2013/03/US-UAE-aviation-report_Published.pdf, Accessed May 20, 2015)

[39] *Ibid.*

[40] *Ibid.* Notably, this report was authored by a Dr. Robert Britton, who for 20 years was an employee of American Airlines. (*See* http://www.airlearn.net/Rob%20Britton%20CV-Resume.pdf, Accessed May 20, 2015) Since the publication of the Open Skies Report, Dr. Britton appears to have cast doubt on his own research of the benefits of the U.S.-UAE aviation relationship. (See http://www.airlearn.net/Reconsidering-Mar2015.pdf, Accessed May 20, 2015) However, to our knowledge, Dr. Britton has not reversed his position with respect to UAE's "geographic centrality" as an important growth factor.

The report presents what it refers to as a "basic analysis of passenger booking data,"[41] as well as an "econometric analysis."[42] At this time, the authors of the report have not made public either the data sets or the computer code used for conducting the econometric analyses in their report. As a result, we are currently limited to considering the models it describes and the results presented.

A. The Compass Lexecon Report Fails to Establish a Causal Link Between the Analyses it Presents and the Alleged Subsidies

52. The Compass Lexecon Report begins with the claim that "[c]ompelling evidence has recently emerged that [the Gulf carriers] have been the beneficiaries of over $40 billion dollars of state subsidies and other unfair advantages over the past decade."[43] As an initial matter, this appears to be an uncritical acceptance of the "evidence," as we understand the nature of that evidence is currently under dispute. Nonetheless, the Compass Lexecon Report's claims that "U.S. carriers have suffered [traffic losses] ***as a result*** of Gulf carriers' subsidized U.S. expansion."[44] This is a critical assumption, as it predicates *the entirety* of the claims in the Compass Lexecon Report. That is, the implication is that the results of their analyses—which look solely at changes in traffic volumes between various points—are ***caused entirely by the alleged subsidies***. This "causal link" lacks any supporting evidence. For example, the Compass Lexecon Report fails to explain how the alleged presence of subsidies has caused U.S. carriers to "suffer traffic losses." Rather, it simply points to the alleged "proliferation of subsidized Gulf carrier capacity to the United States"[45] without explaining why the proliferation *in and of itself* would lead to U.S. carriers losing business.

53. As we have stated above,[46] it is our understanding that the authors of the Open Skies Report have not alleged the existence of predatory pricing by Etihad and other Gulf-based carriers. Nor has the Compass Lexecon Report provided any analysis of prices. As a result, it has failed to provide any explanation or empirical support as to how the alleged subsidies have *caused* the results they have found. We discuss below why the analyses presented in the Compass Lexecon Report are fundamentally flawed. However, even taking those analyses at face value, *none of them* provide any explanation as to the mechanism by which the alleged subsidies affected U.S. carriers' respective businesses.

---

[41] Compass Lexecon Report, p. 4.

[42] *Id.*, p. 12.

[43] *Id.*, p. 1.

[44] *Id.*, p. 3. Emphasis added.

[45] *Ibid.*

[46] See footnote 26, *supra*.

54. To the contrary, we have developed an initial series of analyses that compare Etihad's published fares between its U.S. gateway cities and key destinations in the ISC to fares published by other carriers on these routes.[47] Based on our analysis, we found that Etihad's published economy class fares on routes between the U.S. and the ISC are close to or slightly lower than the median fares published by competing carriers. However, it is also the case that the magnitudes of difference vary across routes, with Etihad being above the median fares published for some routes.

55. The importance of establishing causality when conducting economic analyses of antitrust and competition issues is well-established, and courts have criticized economists that failed to show how their models and results tied to the facts of the case at hand. For example, in *Comcast Corp. v. Behrend*, the Supreme Court of the United States stated that "any model supporting a plaintiff's damages case must be consistent with its liability case, particularly with respect to the alleged anticompetitive effect of the violation."[48]

56. Similarly, the notion of causality is paramount in economic analysis. For example, as one leading econometrics textbook put it, "the economist's goal is to infer that one variable has a **causal effect** on another variable. Simply finding an association between two or more variables might be suggestive, but unless causality can be established, it is rarely compelling."[49] Additionally, as prominent econometrician (and Compass Lexecon affiliate) Dr. Daniel Rubinfeld explains in the Federal Judicial Center's Reference Manual on Scientific Evidence:[50]

> Causality cannot be inferred by data analysis alone; rather, one must infer that a causal relationship exists on the basis of an underlying causal theory that explains the relationship between the two variables. Even when an appropriate theory has been identified, causality can never be inferred directly. One must also look for empirical evidence that there is a causal relationship. Conversely, the fact that two variables are correlated does not guarantee the existence of a relationship; it could be that the model—a characterization of the underlying causal theory—does not reflect the correct interplay among the explanatory variables.

[47] See Section VII.A, *supra*.

[48] *Comcast Corp. v. Behrend*, 569 U.S. (2013), citing ABA Section of Antitrust Law, *Proving Antitrust Damages: Legal and Economic Issues* 57, 62 (2d ed. 2010).

[49] Wooldridge, Jeffery M., *Introductory Econometrics: A Modern Approach*. 4th ed. 2009, p. 12. (Emphasis in original)

[50] Federal Judicial Center, *Reference Manual on Scientific Evidence* 432 (3d ed. 2011), p. 310.

Having failed to establish a causal link between the alleged subsidies and the outcomes of their analyses, the results presented in the Compass Lexecon Report do not support the main claim.[51]

B. The Compass Lexecon Report Focuses Only On U.S.-International Passenger Traffic, Ignoring Key Evidence

57. As the title of the Compass Lexecon Report indicates, it provides an analysis of the impact that the alleged subsidies have had "on international passenger traffic to/from the United States."[52] As a result, it fails to paint a complete picture of competition on routes served by Etihad and other Gulf carriers, as it only looks at a selected sampling of capacity and traffic flow measures, while ignoring all other information. In this report, we have conducted analyses of Etihad's and U.S. carriers' load factors,[53] as well as an initial analysis of published fares on key U.S.-ISC routes.[54] We have also found that in many instances, while competition may have reduced U.S. carriers' shares of total traffic, the same U.S. carriers still served *more passengers* because the overall volume of travel expanded.[55] However, the Compass Lexecon Report—by design—ignores all of these contradictory data and facts.

58. Notably, Compass Lexecon economists have previously provided consulting services for U.S. carriers, including advising on the consummated mergers, slot swaps, and similar transactions between (i) Delta Air Lines and Northwest Airlines in 2008,[56] (ii) Delta Airlines and U.S. Airways in 2011,[57] and (iii) U.S. Airways and American Airlines in 2013.[58] As part of their work in these matters, Compass Lexecon economists have described economic frameworks for assessing potential competitive effects in the airline industry, in large part focusing on the benefits or costs of changes in the competitive landscape *to*

[51] Notably, we have published work on the importance of causality in antitrust analysis: "it is the responsibility of a prudent economic expert to connect *causally* the complained-of actions to the decline in performance of the plaintiff, rather than simply point out their concurrency." (Johnson, J. H., Michael Kheyfets, and Matthew Milner. "Causality and Damages Estimation in Antitrust Litigation: A Case Study." Antitrust Report. Issue 1, 2011. Emphasis in original.)

[52] Compass Lexecon Report, p. 1.

[53] *See* Sections VIII and IX.

[54] *See* Sections VIII.A and Appendix C.

[55] *See* Sections VI and Appendix B.

[56] *See* http://www.compasslexecon.com/highlights/delta-and-northwest-merger/?year=2008, Accessed on May 20, 2015.

[57] *See* http://www.compasslexecon.com/highlights/seagate-samsung-transaction/delta-air-lines-us-airways-slot-swap/?year=2011, Accessed on May 20, 2015.

[58] *See* http://www.compasslexecon.com/highlights/compass-lexecon-experts-provide-key-economic-advice-and-analyses-on-us-airways-and-american-airlines-merger/?year=2013, Accessed on May 20, 2015.

consumers. For example, in an analysis of the Delta/US Airways slot swap transaction, Compass Lexecon:[59]

- Complained of the FAA "focusing on unsubstantiated, theoretical harms, while ignoring the clear and well-documented *output expansion* and *consumer benefits*." (¶3)
- Highlighted their "analysis of the competitive effects of the transaction [that] examined the number of airport-to-airport routes and passengers immediately affected by the gain or loss of a competitor according to Delta's and U.S. Airways' proposed post-transaction schedules," which apparently showed that "the net number of passengers benefitting from increased nonstop competition is 4.0 million." (¶4)
- Used "results on the relationship between fares and concentration from empirical literature" to show that "fares on routes with a change in non-stop competition following the transaction would fall, on net, by $44 million annually." (¶4)
- Discussed an "analysis of consumer benefits [which] documented that, according to the parties' proposed post-transaction schedules, the net seat capacity on arriving and departing flights will increase by 4.4 million annually at LGA and 2.5 million annually at DCA, reflecting the strongly pro-competitive nature of the transaction. Due to this *increased capacity* as well as *improved service*, *more passengers will choose Delta and U.S. Airways* after the transaction than before." (¶5)
- "Estimated the value to consumers from the capacity expansions and quality improvements due to the transaction to be $153 million annually." (¶5)
- Stated that "because ***increasing competition generally enhances consumer welfare, even if it is rough for the competitors involved***, we assume that FAA has in mind a scenario in which Delta or U.S. Airways drive the smaller carriers out of certain routes and then attempt to increase prices on those routes. However, FAA provides absolutely no evidence in support of such a scenario. Indeed, it is difficult to see the economic logic behind the claim." (¶25)

These positions are notable because the authors in this matter appear to be taking views inconsistent with those Compass Lexecon economists took in the Delta/US Airways transaction. Here, the Compass Lexecon has characterized *output expansion* as having a negative effect on competition, have conducted no evaluation of *consumer benefits* or *improved service* at all, and have not analyzed effects of the alleged conduct on fares. In fact, the last of the excerpts above appears to be the *exact opposite* of the position U.S. carriers and their economists have taken in this matter.[60] As Compass Lexecon economists pointed

[59] Non-Confidential Joint Appendix to Comments of Delta Air Lines, Inc. and U.S. Airways, Inc., March 22, 2010. (Emphasis added) Available at http://www.airlineinfo.com/faapdf2/208.pdf.

[60] Notably, the word "consumer" does not appear at all in the body of the Compass Lexecon Report.

out in 2010, "it is unusual, to say the least, for a government agency to worry about the deleterious effects of *increasing competition*."[61]

C. The Entirety of Analyses in the Compass Lexecon Report are Predicated on a False Notion That Etihad and Other Gulf Carriers Must "Stimulate Demand" in Order to be Allowed to Operate

59. A key concept introduced and repeated—but not defined in economic terms—in the Compass Lexecon Report is the notion that carriers "stimulate demand."[62] Before proceeding with our assessment of their analyses, it is important to address this notion, as the entirety of their conclusions are predicated on the claim that Gulf carriers have not "stimulated" demand. While the Compass Lexecon Report does not explain this concept, we understand it to mean *servicing a customer who would not otherwise be serviced by U.S. carriers*.

60. This definition has no basis in economics. The Compass Lexecon Report fails to point to any economic or legal doctrine which indicates that an incumbent is *entitled* to the customers it serves and the only way for new entrants to compete "fairly" is to sell their products to customers *who would not otherwise purchase from the incumbent*. The nature of economic competition, as well as U.S. antitrust law, does not *guarantee* any such entitlement to maintaining a firm's business forever; rather firms may try to not only grow the size of the markets in which they operate, but also try to attract their competitors' customers through lower pricing and higher quality products.

61. Importantly, U.S. competition laws are concerned with protection of **competition, *not individual competitors***. As the U.S. Department of Justice has stated:[63]

> The focus on protecting the **competitive process** has special significance in distinguishing between lawful and unlawful unilateral conduct. Competition produces injuries; an enterprising firm may negatively affect rivals' profits or drive them out of business. But competition also benefits consumers by spurring price reductions, better quality, and innovation. Accordingly, mere harm to competitors is not a basis for antitrust liability. "The purpose of the [Sherman] Act," the Supreme Court instructs, "is not to protect businesses from the working of the market; it is to protect the public from the failure of the market." Thus, preserving the rough-and tumble of the marketplace ultimately "promotes the consumer interests that the Sherman Act aims to foster."

---

[61] *Ibid.*, ¶24. (Emphasis in original)

[62] Compass Lexecon Report, p. 2.

[63] U.S. Dep't of Justice, Competition and Monopoly: Single-Firm Conduct Under Section 2 of the Sherman Act (2008), Chapter 1, Section III.D. (Emphasis added) Available at: http://www.justice.gov/atr/public/reports/236681_chapter1.pdf

However, the Compass Lexecon Report contains no analysis of *competition*, but only the alleged *effects* of competition on the U.S. carriers. That is, when it claims that its analyses "demonstrate that subsidized Gulf carrier expansion to the United States has directly harmed U.S. carriers and their JV partners,"[64] that is a finding—even if it were true—that is irrelevant to an economic analysis of alleged anticompetitive acts.

D. The "Basic Analysis" in the Compass Lexecon Report Has Substantial Problems

62. The "basic analysis" in the Compass Lexecon Report begins with the claim that "Gulf carriers have failed to meaningfully stimulate additional local traffic to/from their hub cities."[65] First, this analysis does not actually present capacity and growth in traffic for Etihad, and it is unclear if the analysis shown (*i.e.*, just for Emirates) is intended to be representative of the other Gulf carriers. As we discussed above, bookings between the U.S. and Abu Dhabi have grown substantially in recent years.[66] Further, as we have also discussed above, it is inappropriate and misleading to compare Etihad's capacity on flights between U.S. and Abu Dhabi to the number of passengers that *terminate* their trip there because Etihad's passenger flow generally continues *beyond* its domestic hub, primarily to the ISC. For example, as **Exhibit 13** shows, while only 14 percent of Etihad's economy class traffic between March 2014 and February 2015 terminated in Abu Dhabi, 66 percent proceeded beyond its hub to the ISC.

63. Notably, the authors of the Compass Lexecon Report have failed to conduct any analysis of load factors to test whether the apparently vast differences between capacity and bookings on flights between the U.S. and Gulf carriers' hubs has resulted in "excess" capacity.[67] In fact, as we showed in **Exhibit 14**, while Etihad has increase the number of total seats flown between U.S. and Abu Dhabi over the relevant period, the load factor on this route actually *increased*.

64. Potentially recognizing the importance of the "beyond the hub" destinations, the Compass Lexecon Report purports to conduct an analysis of that travel as well. However, it does not *actually* present any analysis of the changes in traffic *volume* traveling from the U.S. to key "beyond" destinations. Rather, it simply restates the claim made in the Open Skies Report that "Gulf carriers have grown their share of U.S.-Indian Subcontinent bookings from approximately 12% in 2008 to 40% in 2014."[68] As we showed in **Exhibit 2,** the *overall volume* of economy class travel between U.S. and ISC has grown

[64] Compass Lexecon Report, p. 20.

[65] *Id.*, p. 5.

[66] *See* ¶12, supra.

[67] *See* Compass Lexecon Report, Exhibit 3.

[68] *Id.*, p. 9.

substantially since 2009. (Analyses in **Appendix A** show the same pattern for premium class travel and for individual routes within the ISC.) Further, as **Exhibit 6** shows, while the Immunized Alliance Members lost 4.4 percentage points of the overall volume of economy class traffic on this route between 2009 and 2014 (reducing their share from 40.7 to 36.3 percent), they actually serviced 18 percent (or over 223,000) *more passengers*.

65. The "basic analysis" in the Compass Lexecon Report also claims that "if it were true that Gulf carriers' services stimulated significant amounts of new traffic [between the U.S. and ISC] one would expect to see faster traffic growth [on those routes] than between [China and South Korea]."[69] However, the Compass Lexecon Report fails to explain why "one would expect" that the aggregate of travel between U.S. and China/South Korea is a meaningful or appropriate benchmark. Additionally, this analysis ignores *all other* aspects of the competitive landscapes on the respective individual routes.[70]

66. Lastly, the Compass Lexecon Report finds it "unsurprising" that the Gulf carriers have allegedly "failed to meaningfully stimulate additional traffic" because "all but a small handful of the destinations served by the Gulf carriers **are already served by U.S. carriers and/or their non-Gulf carrier global alliance partners**."[71] That is, they claim, because the Gulf carriers' respective networks are "highly redundant" and "largely duplicative."[72] This claim has no economic foundation. In the next section, we discuss in detail the assumption made by U.S. carriers (and their economists) that competitors should not operate anywhere where a U.S. carrier already offers service. One key implication of this claim is that any two carriers operating in the same location are "redundant" and that any new entry of competition is "largely duplicative."

E. The Regression Analyses in the Compass Lexecon Report Have Substantial Problems

67. The Compass Lexecon Report purports to "formally test how Gulf carrier expansion to the United States has affected passenger traffic levels on city-pairs to/from the United States" by estimating "a series

[69] Compass Lexecon Report, p. 10.

[70] Notably, as we discuss below, even the regression analyses in the Compass Lexecon Report does not attempt to control for *all other sources of competition* beside that from the Gulf carriers. Moreover, even taking this analysis at face value, it indicates that travel between the ISC and Dallas/Ft. Worth, Philadelphia, and Washington grew *faster* than travel between those U.S. cities and China and South Korea. To the extent this analysis serves as basis for Compass Lexecon Report's conclusions, *their own findings* indicate that demand for travel to and from those cities was supposedly "stimulated" beyond levels for China and South Korea.

[71] Compass Lexecon Report, p. 11. (Emphasis added)

[72] *Ibid*.

of passenger traffic regression models."[73] As we discussed above, at this time, we do not have access to either the data sets or the computer code used in generating the econometric analyses in the Compass Lexecon Report, and therefore only offer conceptual critiques to the models described and the results presented in the report.

68. As an initial matter, it is important to explain a series of fundamental features of the Compass Lexecon Report regression models: Specifically, they:

- Treat all U.S. carriers (and in some variations, the U.S. carriers and their immunized partners) as though they are a *single entity*. That is, these models have no ability to discern the competition (if any) *between* U.S. carriers (and their immunized partners).
- Contain no controls for the presence of *any other competitors on any route*. That is, to the extent non-Gulf-based carriers compete on the same routes, the effect of those competitors would be ascribed to Etihad and the other Gulf carriers. For example, Air India and Turkish Airlines, among others, compete substantially for U.S.-India traffic, a fact for which the Compass Lexecon models do not account.
- Include "all city-pairs between the continental United States and destinations in Asia, Africa, Europe, the Middle East and Australasia, with the exception of city-pairs to and from Milan."[74] As we have shown in **Exhibit 13**, approximately 80 percent of Etihad's traffic either terminates in Abu Dhabi or goes to the ISC. This means that the model includes a substantial number of routes (most notably, between the U.S. and Europe) where Etihad does not materially compete for U.S. traffic—and therefore could not have caused the effects the Compass Lexecon Report purports to find.[75]
- Purport to test how "Gulf carrier expansion to the United States has affected passenger traffic levels on city-pairs to/from the United States."[76] However, their model reports only *a single average effect across all city-pairs*. That is—to the extent the results of the Compass Lexecon regression model provide meaningful information—if the effect actually exists on one route but not on another, the model is structured in a way such that it cannot make that distinction.[77]

[73] *Id.*, p. 12.

[74] *Id.*, p. 13.

[75] The regressions also arbitrarily exclude "city-pairs to and from Milan" on the basis that "Emirates' entry between New York City and Milan has resulted in overcapacity on this city-pair." (Compass Lexecon Report, p. 13.) No analysis is presented to substantiate the claim of "overcapacity" on this route, nor is it clear why all other city-pairs to and from Milan other than New York are excluded.

[76] Compass Lexecon Report, p. 12.

[77] The Compass Lexecon Report acknowledges this averaging across routes in footnote 29.

69. There is also a fundamental flaw with the "key independent variable of interest" in the Compass Lexecon model, which is intended to represent a count of the "*Number of Gulf Carriers Present*" on a particular route.[78] In this model, a Gulf carrier is determined to be "serving" a city-pair in a given quarter if it "had at least a 3% share of bookings in the quarter."[79] This variable (i.e., there are either zero, one, two, or three Gulf carriers "present" on a city-pair in the given quarter) is problematic for a number of reasons:

- The thresholds (either 3 or 10 percent share of bookings) are arbitrary. The Compass Lexecon Report provides no explanation as to how a carrier with a little as 3 percent of bookings can cause the effects the regression model purports to measure. (Additionally, it provides no explanation as to why a carrier with as little as 3 percent of bookings is treated equally as another carrier with a potentially much larger share.)
- Because the Compass Lexecon regression models do not account for any competitive alternatives other than the Gulf carriers—nor do they reflect *actual evidence* on when carriers began operating on a particular route—the formulation of this variable makes it appear that carriers "enter" and "exit" a particular route when they in fact do not. For example, using the 3 percent threshold for "presence" on a route described in the Compass Lexecon Report, Etihad appears to leave and re-enter the New York City to Delhi route **several times** over the span of 2008 to 2014, and appears to be "not present" on the route for **approximately half** of the time. However, factual evidence indicates that Etihad has been operating on this route for the entire period of study,[80] meaning that the "presence" of Gulf carriers as defined by the model is contrary to the facts.

70. The Compass Lexecon regression models purports to test two theories, discussed in turn below.

- **"Gulf carriers' traffic gains on city-pairs to/from the United States have come at the expense of U.S. and other carriers."**[81]

71. The Compass Lexecon Report claims that this regression analysis "*clearly demonstrates* that Gulf carriers' subsidized capacity growth to the United States has come at the expense of U.S. and other

[78] Compass Lexecon Report, p. 13.

[79] *Ibid.* (An additional sensitivity of this model appears to have also been run where the threshold for "serving" is 10 rather than 3 percent.)

[80] Felicity Cousins, *Etihad to fly Abu Dhabi – JKF*, Business Traveller. (July 27, 2006), http://www.businesstraveller.com/news/etihad-to-fly-abu-dhabi-jfk. Accessed May 20, 2015.
Etihad Airways begins India Operations, The Hindu Business Line. (Sep. 29, 2004), http://www.thehindubusinessline.com/2004/09/30/stories/2004093002970600.htm.

[81] Compass Lexecon Report, p. 13.

carriers."[82] In addition to the conceptual and operational problems with this model, as discussed above, the supposed finding that "presence of Gulf carriers on a city-pair has resulted in the *diversion* of passengers away from non-Gulf carriers to the Gulf carriers in that city-pair"[83] is *at best* an indication that competition exists.[84] Additionally, as our analysis in **Exhibit 6** indicates (and is further supplemented by similar analyses in **Appendix B**), as traffic between the U.S. and key regions where Etihad operates has grown over time, the numbers of passengers served by U.S. carriers (and their immunized partners) have also grown. The fact that Gulf-based carriers' share may have grown *faster* on some routes is of no consequence in the absence of any link to any alleged anticompetitive conduct.

- **"Gulf carriers have failed to meaningfully stimulate additional traffic *above and beyond* what would be expected based on changes in the city-pair's underlying demand."**[85]

72. This is essentially the same model as that previously described, which purports to find that "presence" of Gulf carriers has reduced traffic carried by U.S. carriers and their partners. The problem with this model is that it measures an average effect across *all routes*, including many between U.S. and Europe (as well as other continents) where Etihad *does not compete for traffic*. As a result, it is unable to determine whether, in fact, Etihad (and other Gulf-based carriers) have "stimulated" demand on relevant routes. Moreover, the Compass Lexecon Report provides no explanation as to why Etihad is responsible for "stimulating demand" *between the U.S. and the rest of the world* on routes where it does not compete.

73. This model is also predicated on the notion that Etihad (and other Gulf-based carriers) are only permitted to compete with U.S. carriers and their immunized partners if they "stimulate" demand "above and beyond"[86] that generated by what the authors characterize as general economic drivers of demand for international air travel (*i.e.*, population and income growth).[87] This appears to imply that Gulf carriers

[82] *Id.*, p. 18. (Emphasis added)

[83] *Id.*, pp.14-15. (Emphasis in original)

[84] In fact, it is likely that this model would have the same findings on *any route* where U.S. carriers have lost passengers as a result of growth from non-Gulf-based carriers. Moreover, to the extent U.S. carriers compete *with each* other, the model is likely to find that "presence" of one U.S. carrier "diverts" passengers from the others. Models that yield such "false positive" results are highly problematic and have been criticized by courts assessing antitrust and competition issues. (*See e.g.*, *In Re: Rail Freight Fuel Surcharge Antitrust Litigation*, Appeal from the United States District Court for the District of Columbia (2013))

[85] Compass Lexecon Report, p. 13. (Emphasis added)

[86] *Ibid.*

[87] Notably, Compass Lexecon's *own model* finds a positive and statistically significant "stimulation from the presence of each Gulf carrier in city-pairs to/from Gulf carriers' non-gateway U.S. cities." (Compass Lexecon Report, pp. 21-22 and Exhibit 9). That is, even by their definition, Gulf carriers "stimulated" demand for U.S. carriers' domestic business (*i.e.*, transporting passengers from hubs to their final destinations). However, while the

can operate *only* on routes U.S. carriers *choose* not to serve (either by not setting fares sufficiently low for passengers to be able to purchase tickets, or by not serving certain destinations). If the demand for international air travel increases as populations grow and become wealthier, air carriers can choose to ***service*** that demand. However, the implication that "fair competition" can only take place when new entrants solely sell their products to customers who do not want to (or cannot) purchase those products from the incumbents is unsubstantiated and without merit.

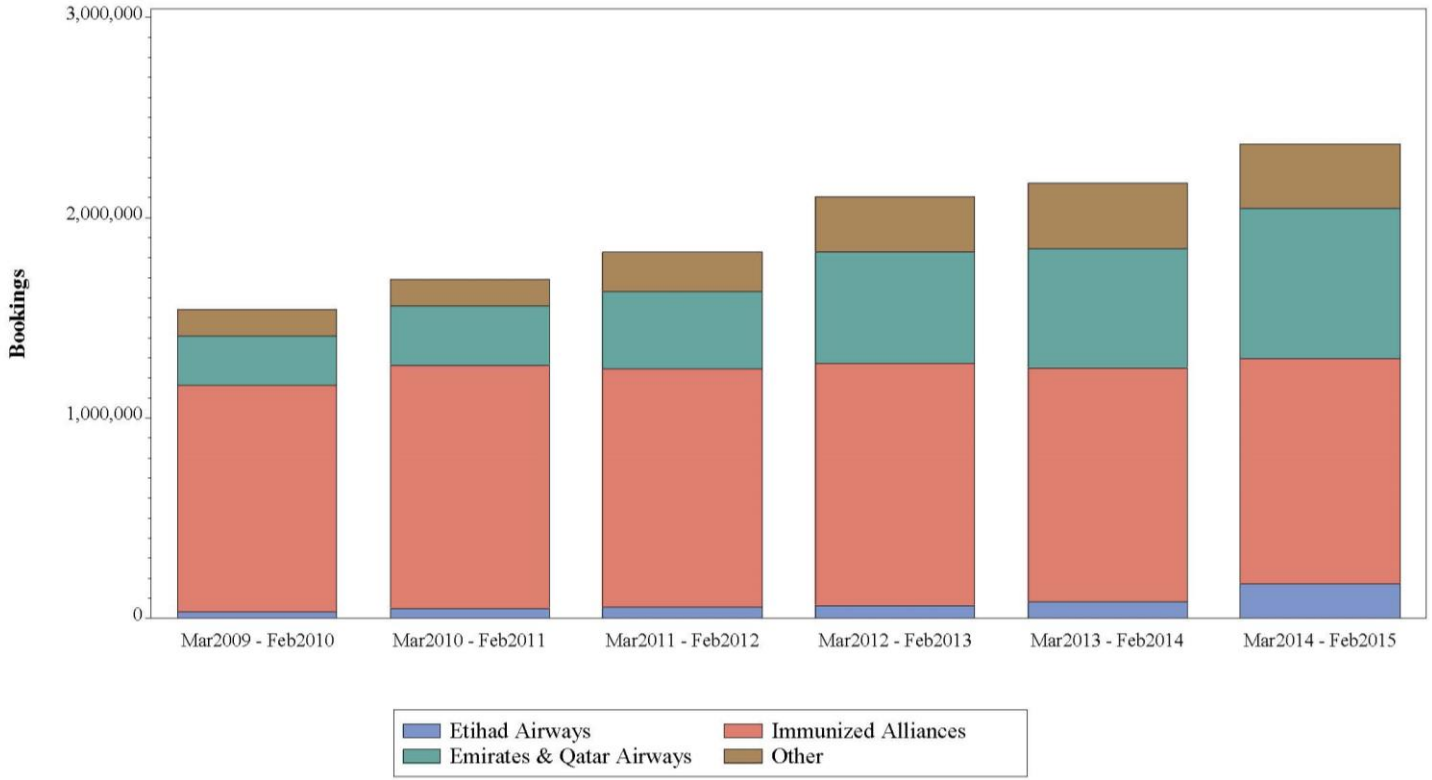
74. Ultimately, the Compass Lexecon Report concludes that the aggregate of the analyses it presents lead to "one incontrovertible conclusion: *Gulf carriers' subsidized expansion has come almost entirely at the expense of U.S. and other carriers*."[88] As we have shown in this report, this conclusion is far from "incontrovertible." Rather, it is based on analyses that (i) have not been shown to have *any causal link* to the alleged subsidies, (ii) rely solely on U.S.-international passenger traffic and ignore other relevant evidence, (iii) are predicated on the notion that in order to compete, new entrants must "stimulate demand" by serving only customers not already served by an incumbent. This conclusion is further based on regression models that are fundamentally flawed and, at best, indicate the presence of competition.

Compass Lexecon Report dismisses this finding, referring to it as "minimal stimulation," it fails to provide any benchmark for what level of "demand stimulation" should be considered appropriate.

[88] Compass Lexecon Report, p. 22. (Emphasis in original)

APPENDIX A

FIGURE A1
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND MIDDLE EAST
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

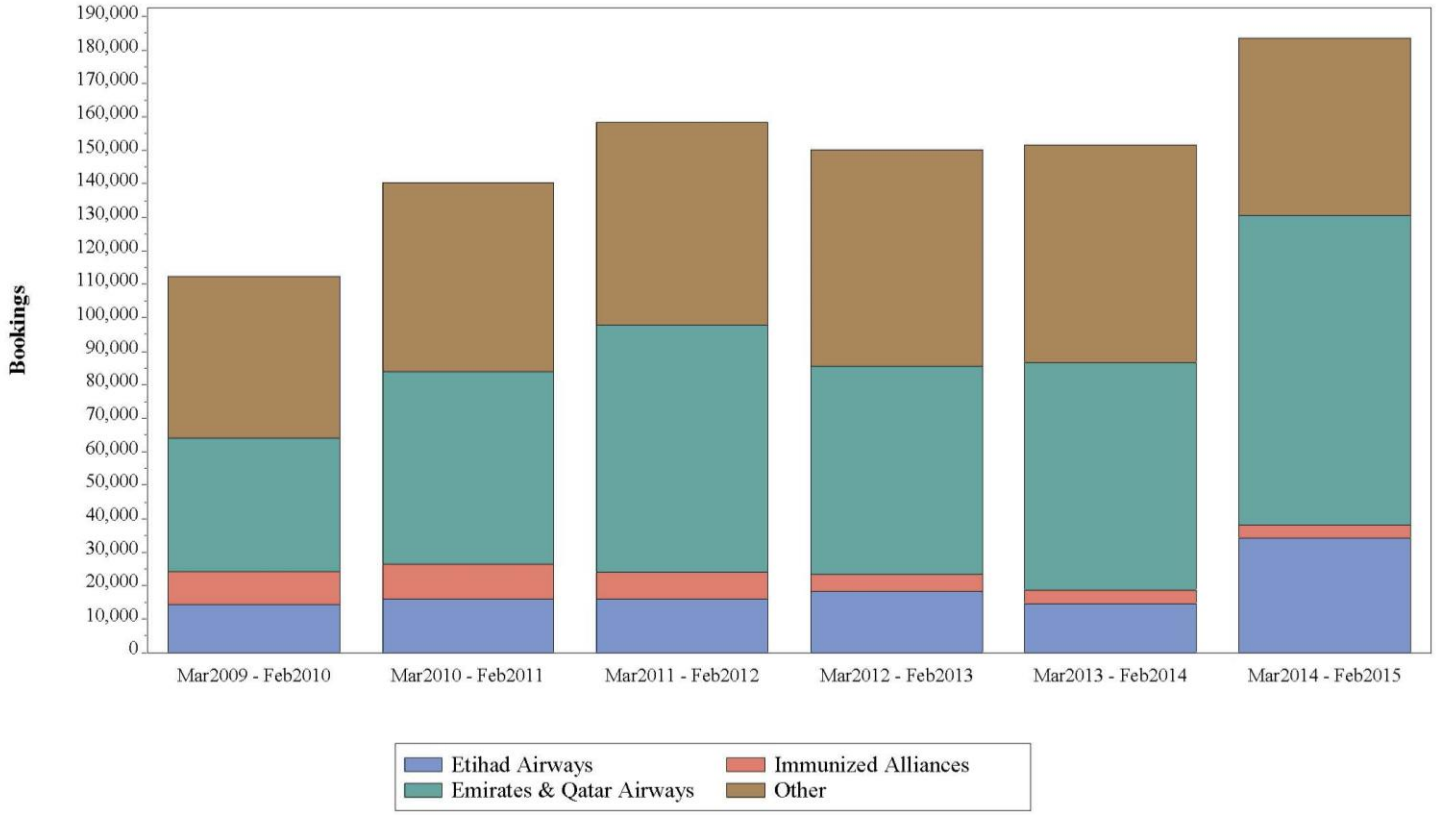
[2] Traffic flows are non-directional.

[3] Middle East includes Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen, and United Arab Emirates.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A2
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND BANGLADESH
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

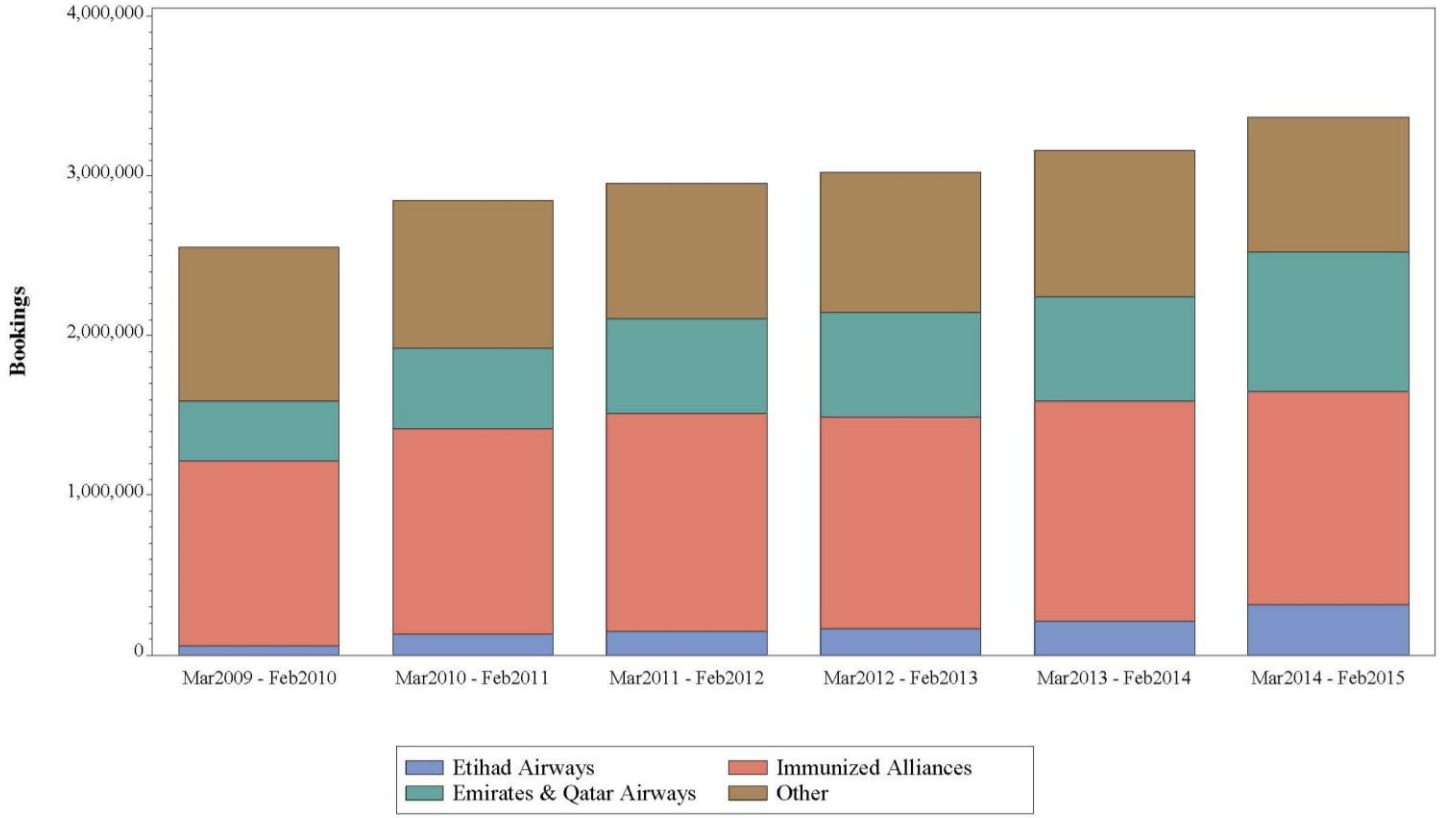
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A3
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND INDIA
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

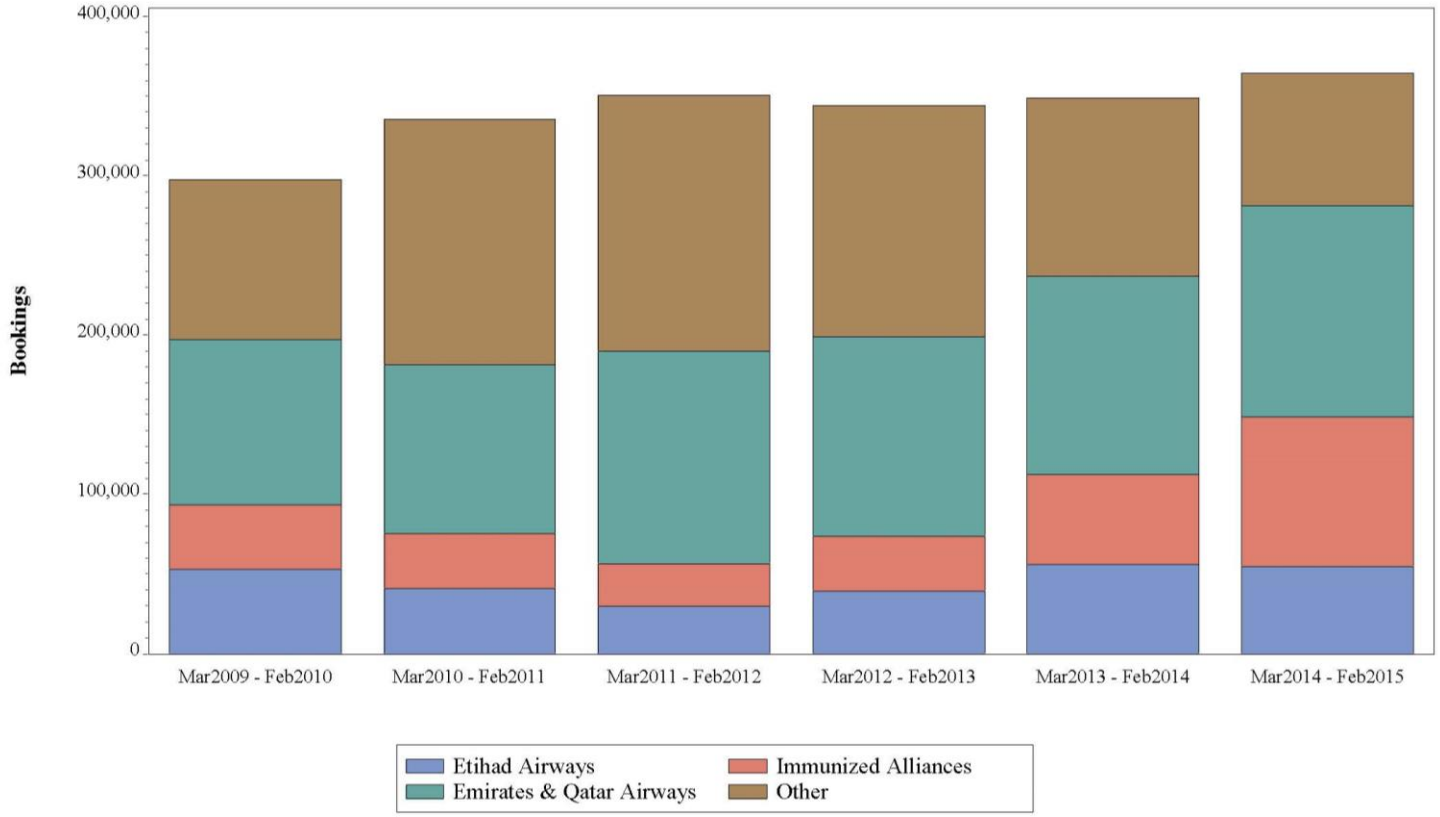
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A4
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND PAKISTAN
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

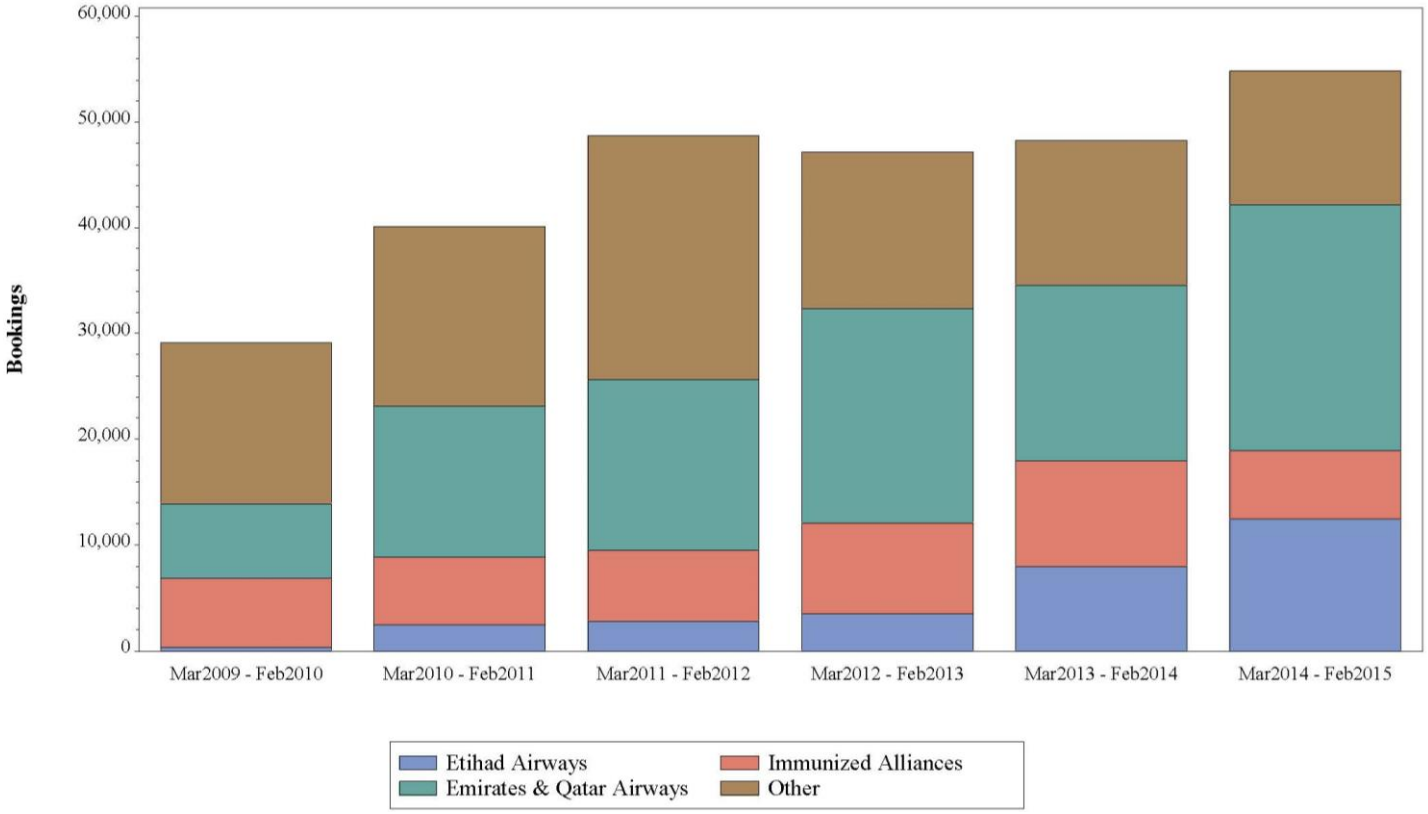
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A5
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND SRI LANKA
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

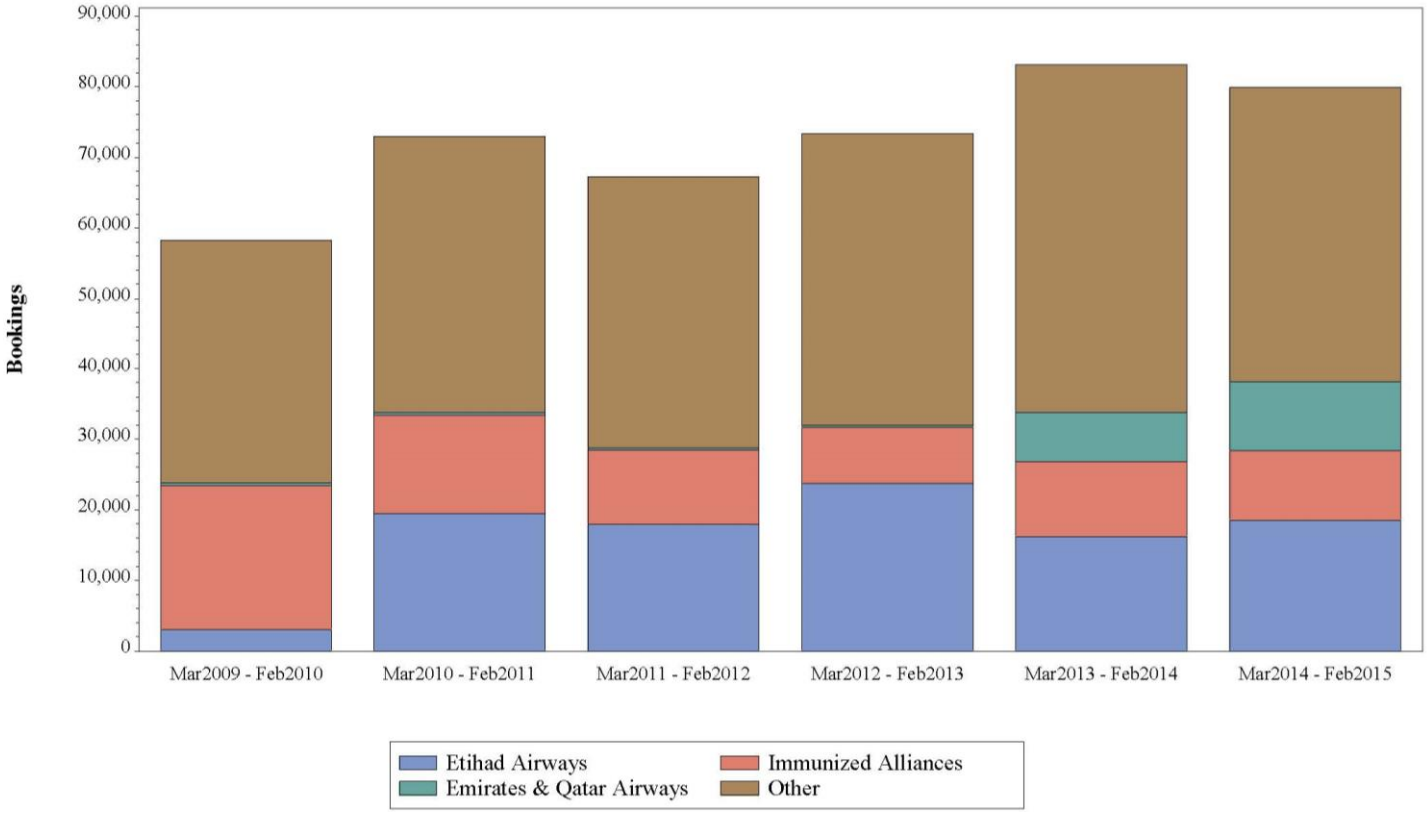
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A6
VOLUME OF TRAVEL BETWEEN CHICAGO AND HYDERABAD
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

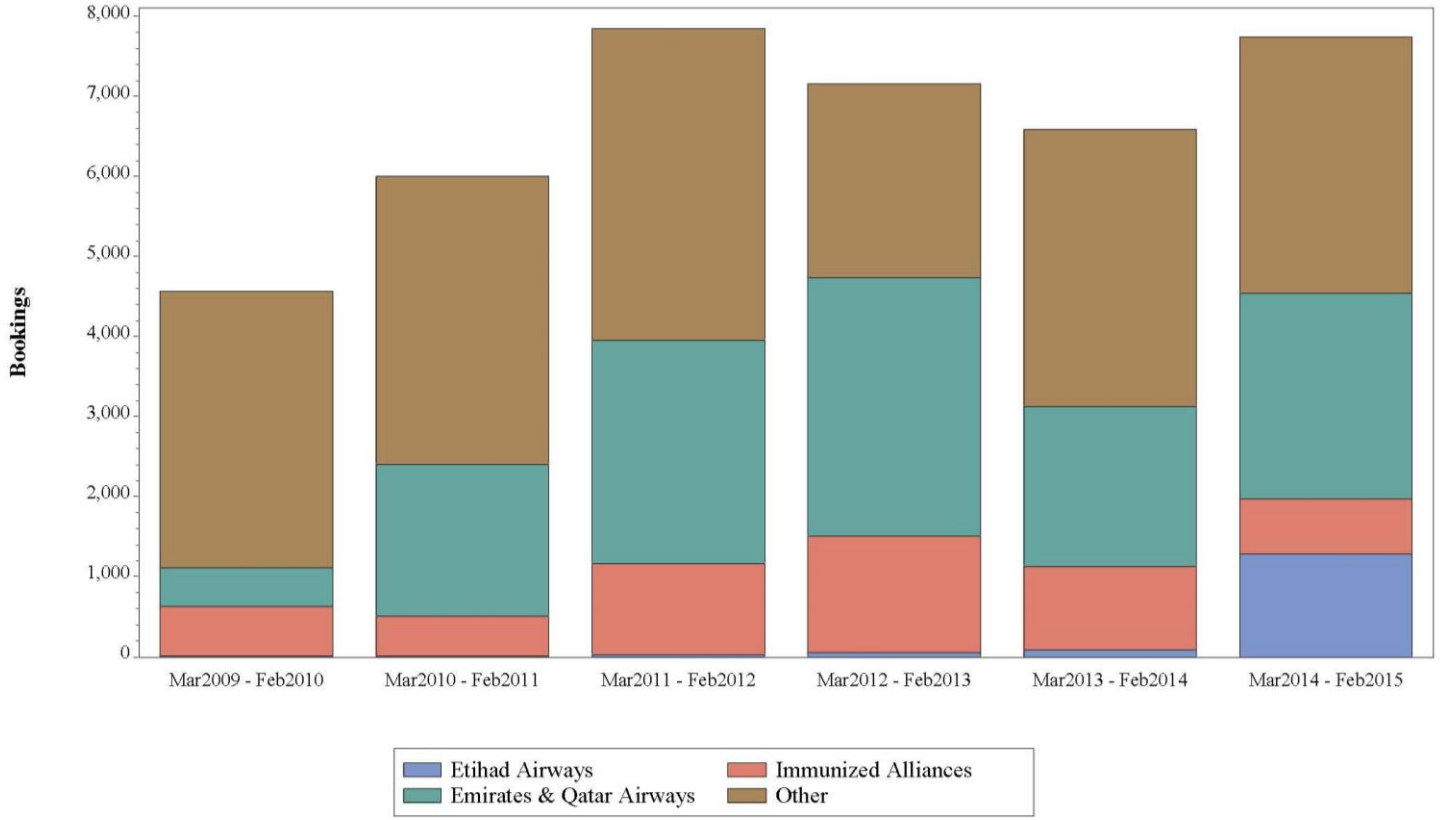
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A7
VOLUME OF TRAVEL BETWEEN LOS ANGELES AND COLOMBO
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

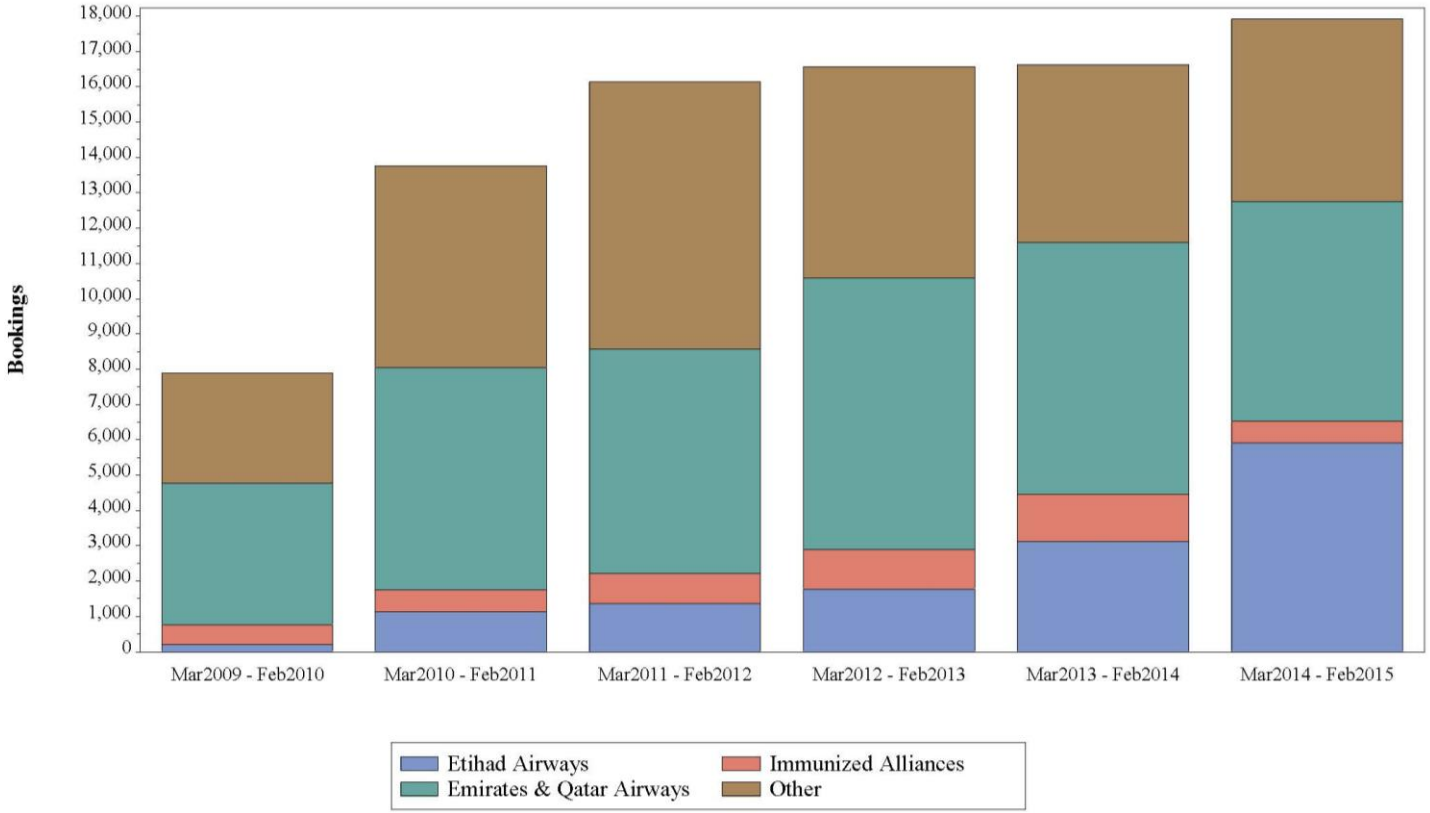
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A8
VOLUME OF TRAVEL BETWEEN NEW YORK AND COLOMBO
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

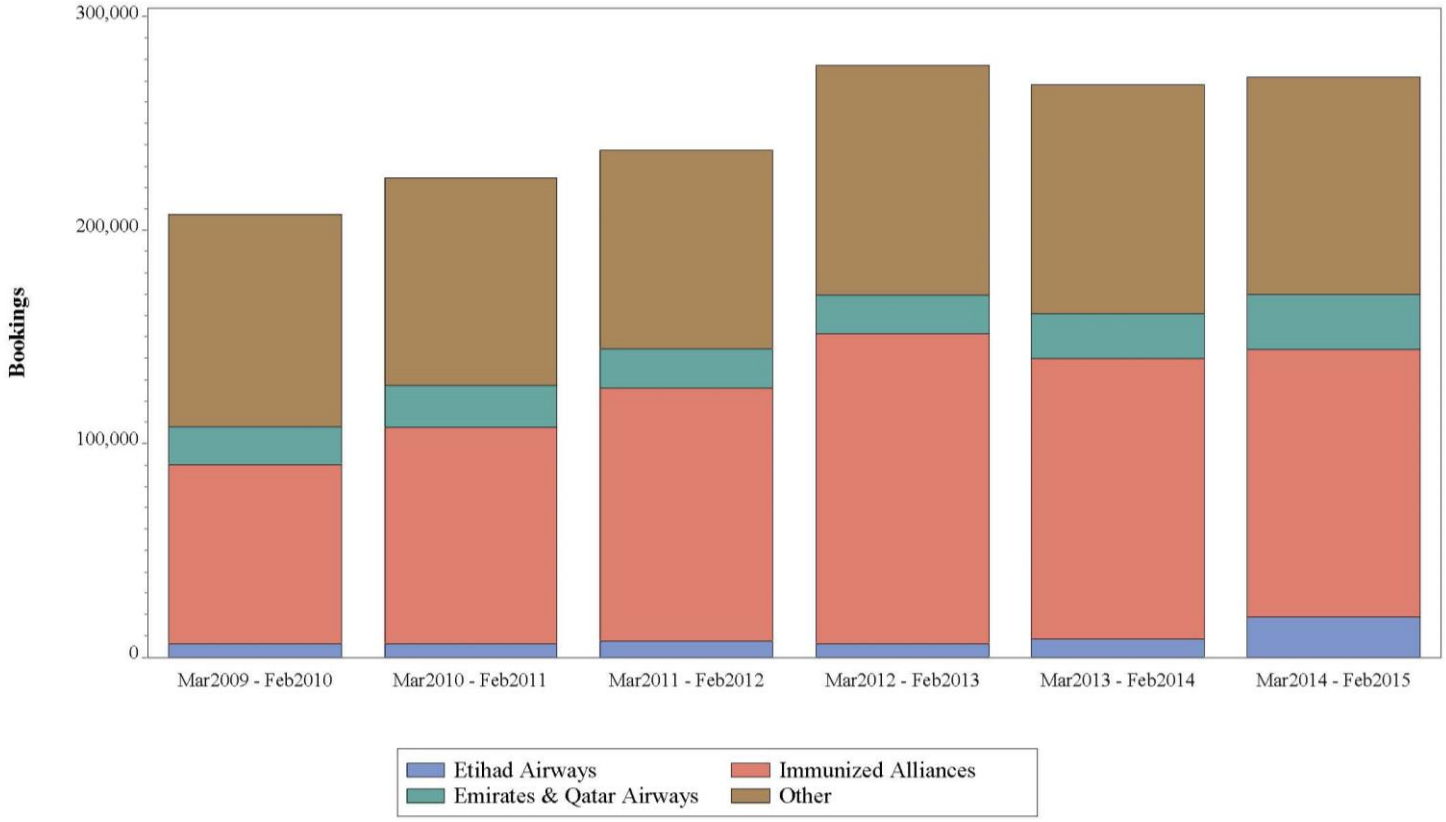
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A9
VOLUME OF TRAVEL BETWEEN NEW YORK AND DELHI
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

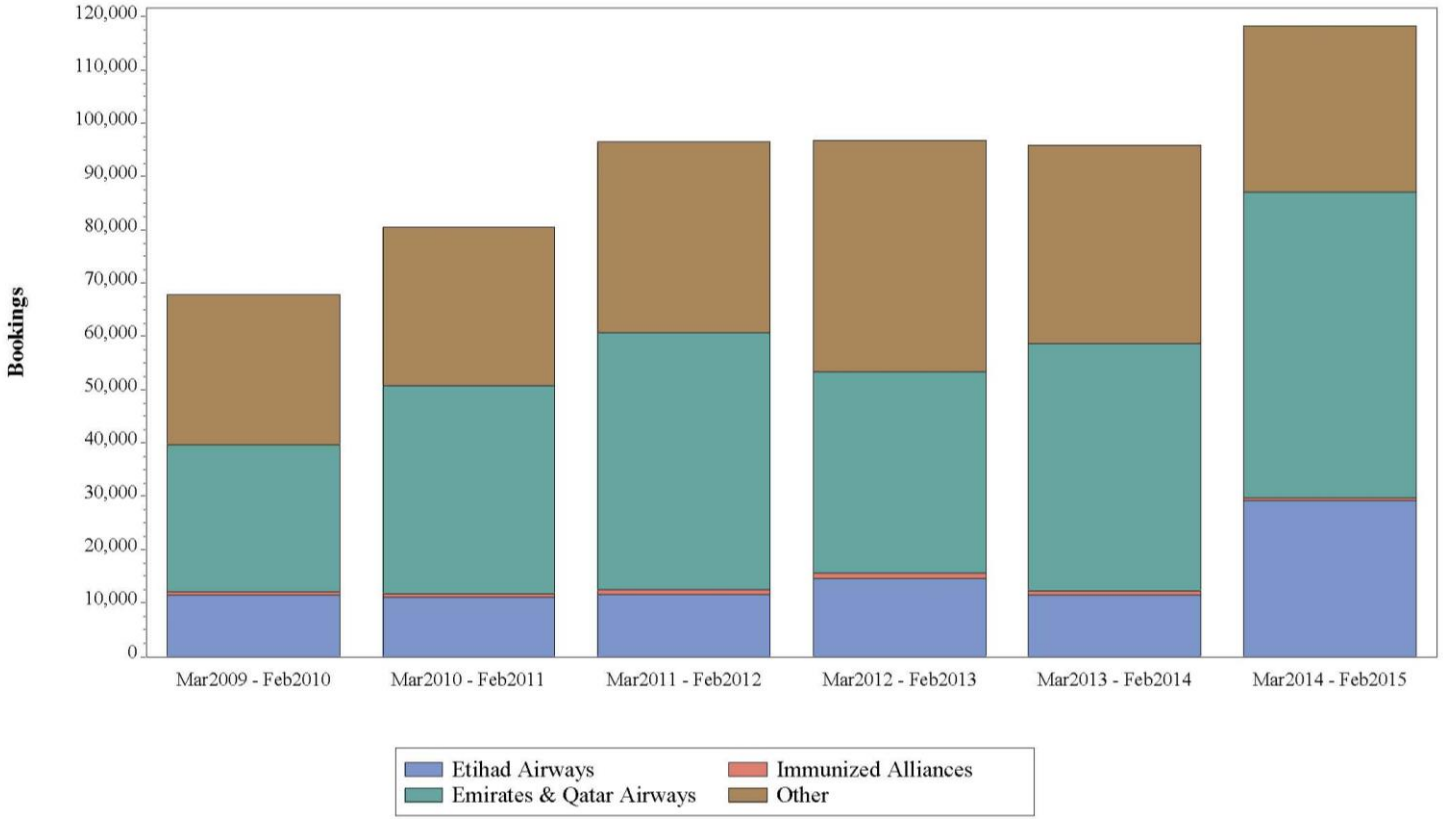
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A10
VOLUME OF TRAVEL BETWEEN NEW YORK AND DHAKA
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

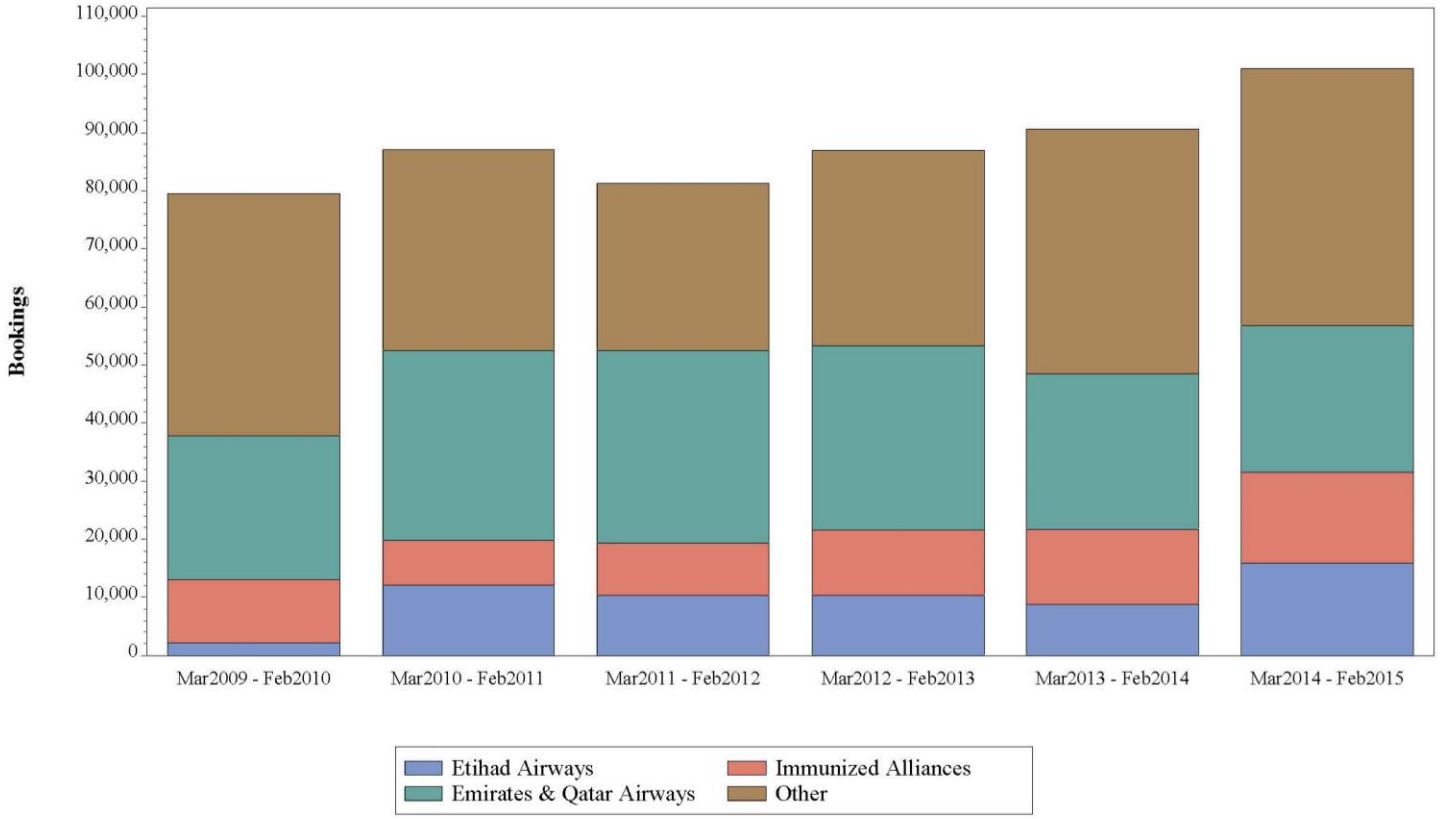
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A11
VOLUME OF TRAVEL BETWEEN NEW YORK AND HYDERABAD
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

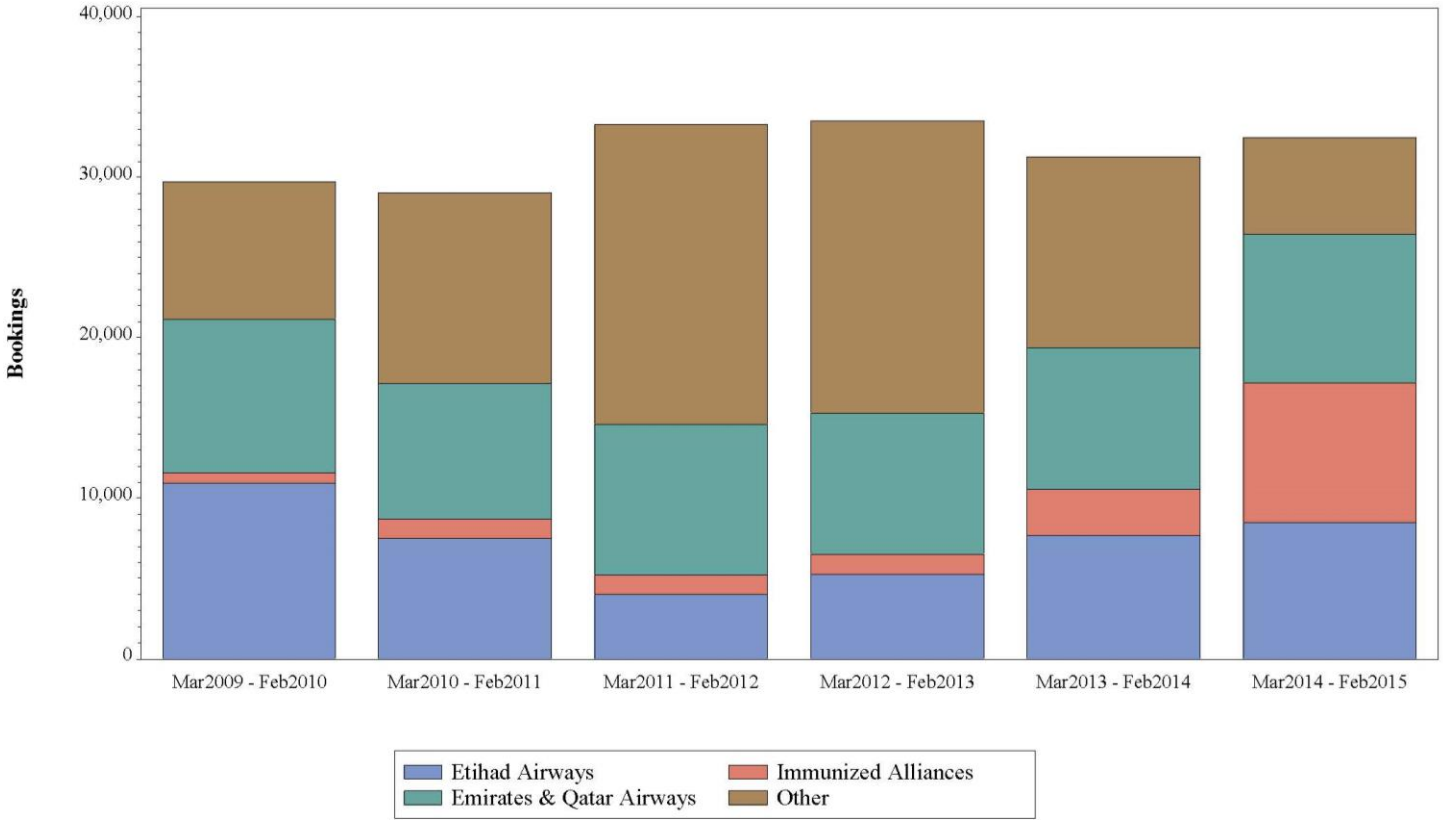
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A12
VOLUME OF TRAVEL BETWEEN NEW YORK AND ISLAMABAD
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

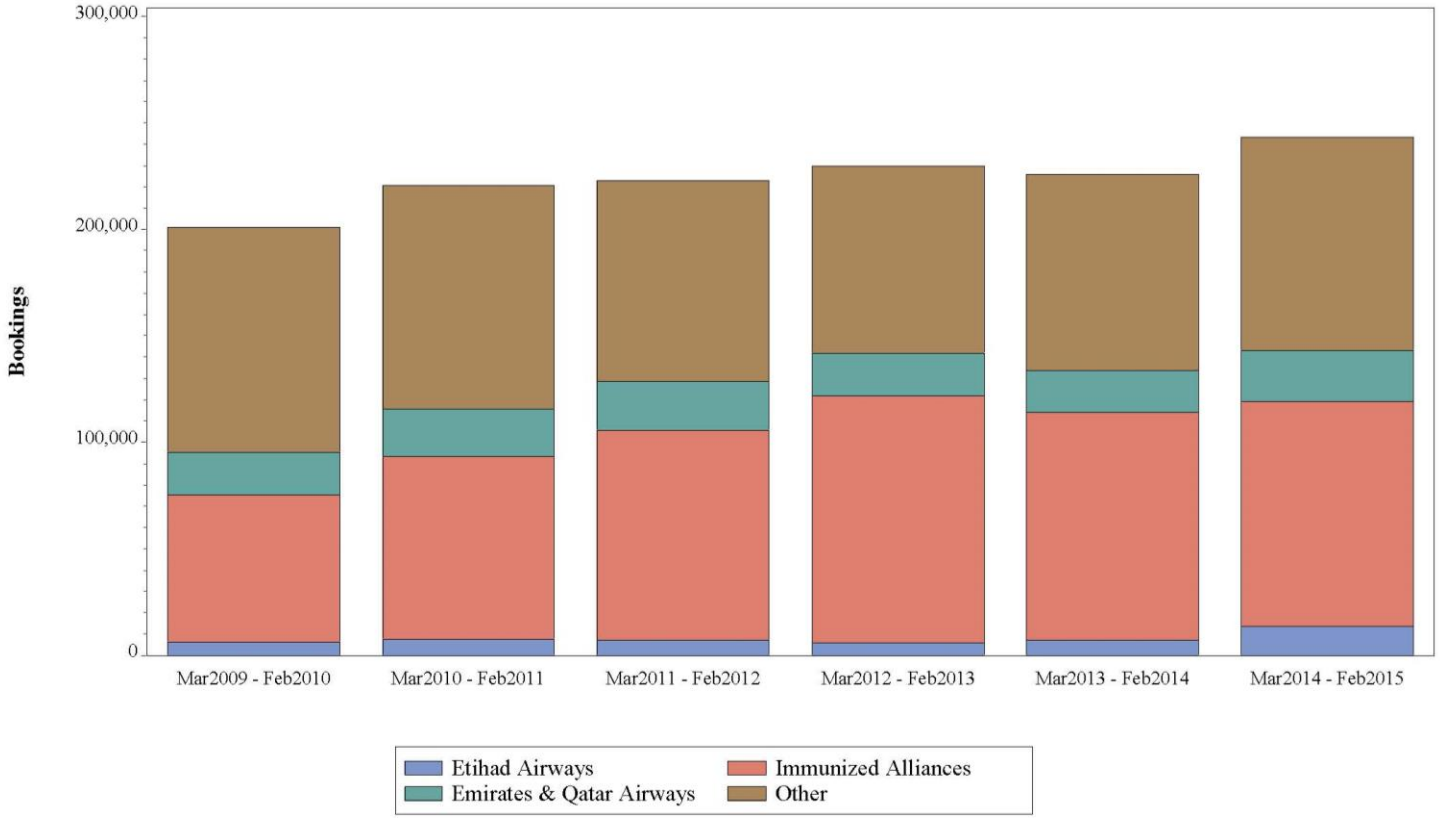
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A13
VOLUME OF TRAVEL BETWEEN NEW YORK AND MUMBAI
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

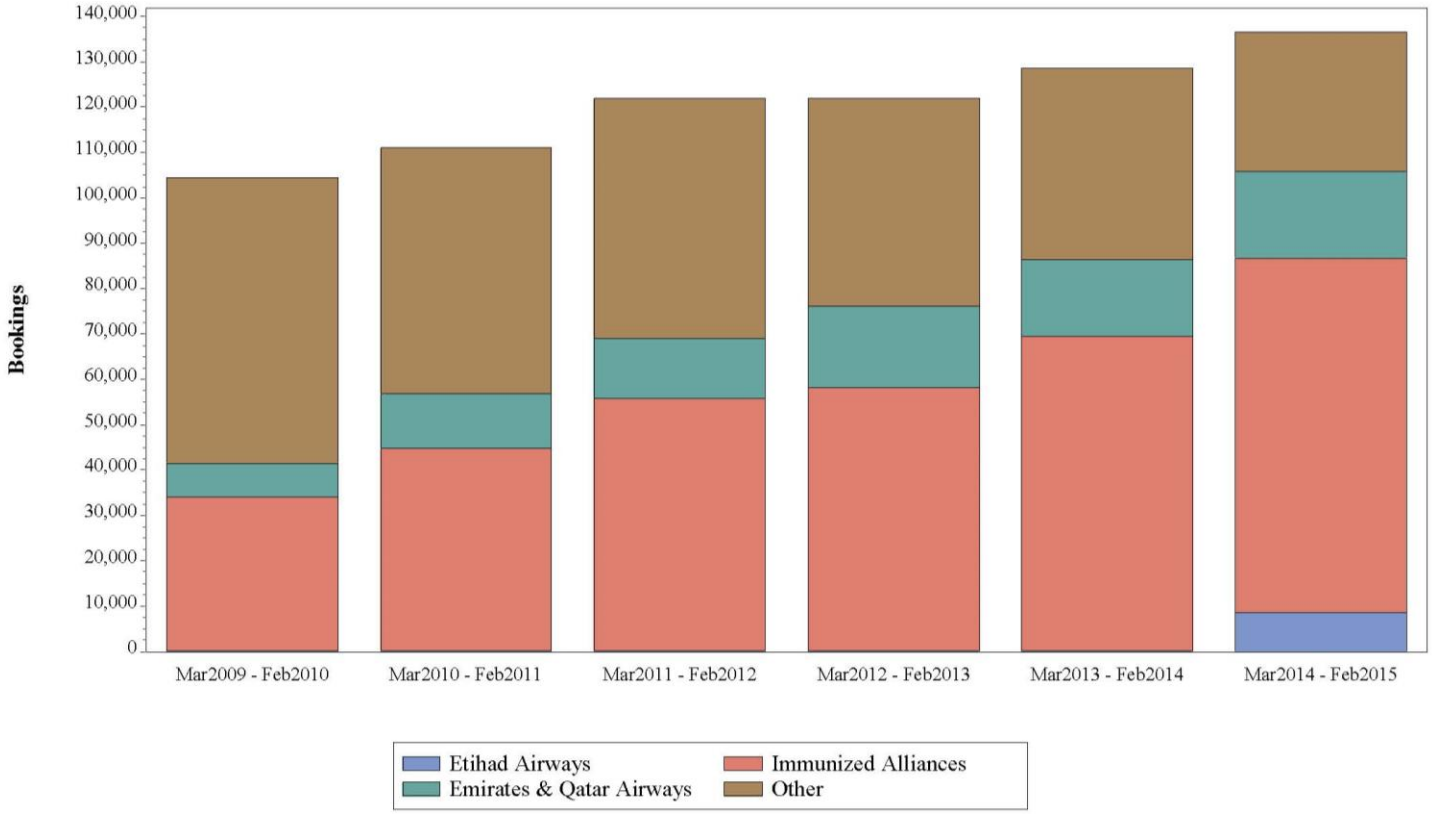
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A14
VOLUME OF TRAVEL BETWEEN SAN FRANCISCO AND DELHI
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

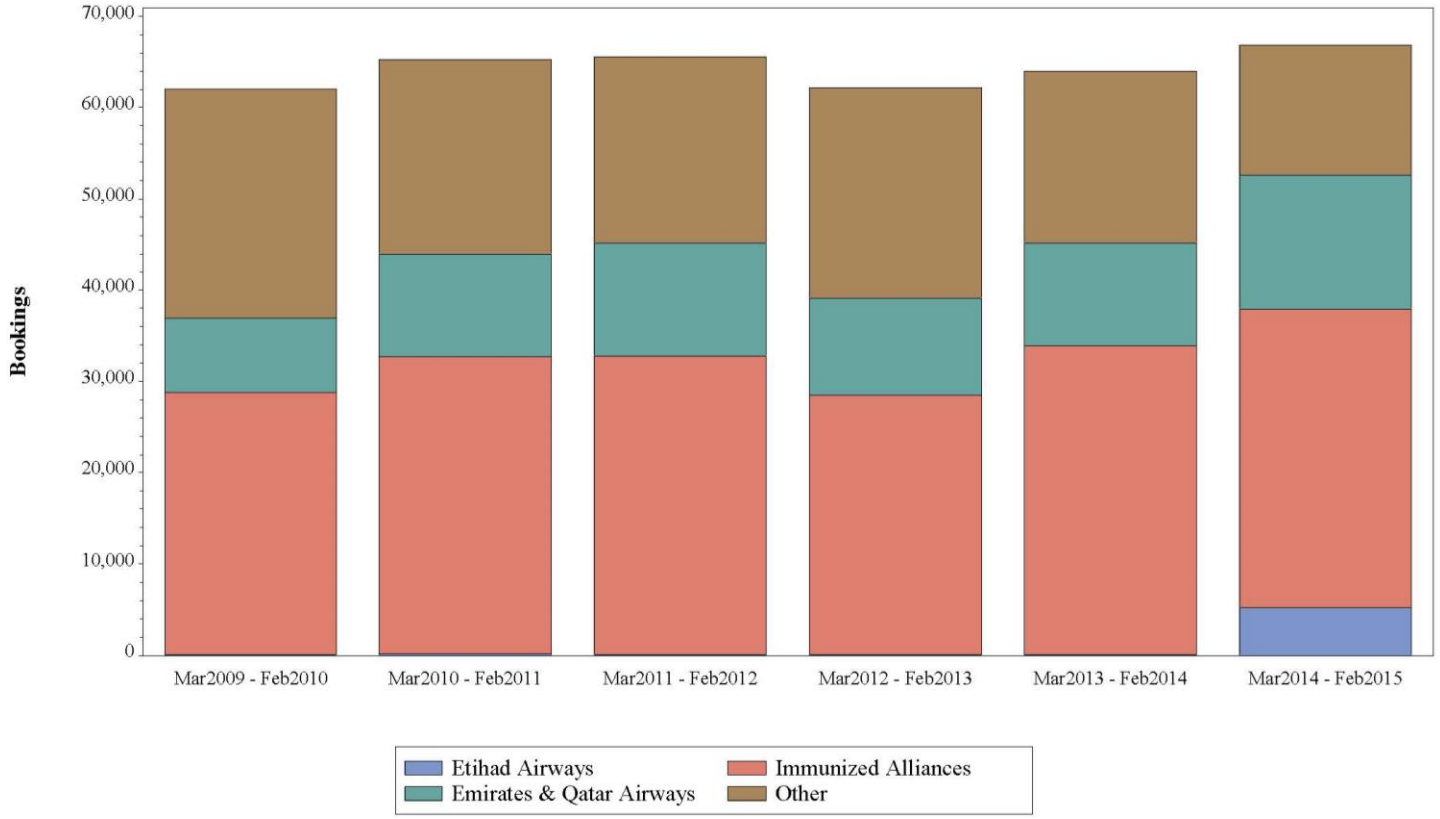
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A15
VOLUME OF TRAVEL BETWEEN SAN FRANCISCO AND MUMBAI
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

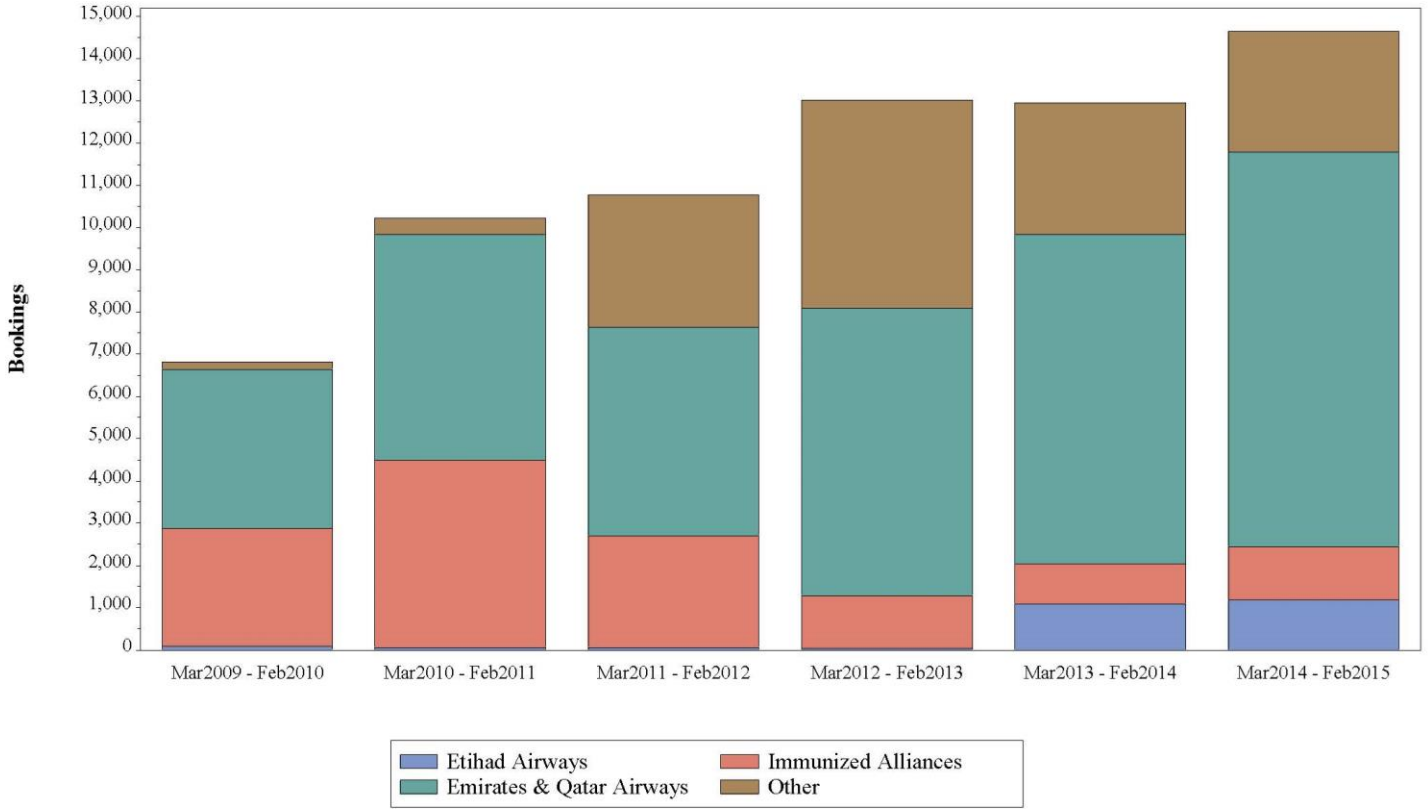
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A16
VOLUME OF TRAVEL BETWEEN WASHINGTON D.C. AND DHAKA
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

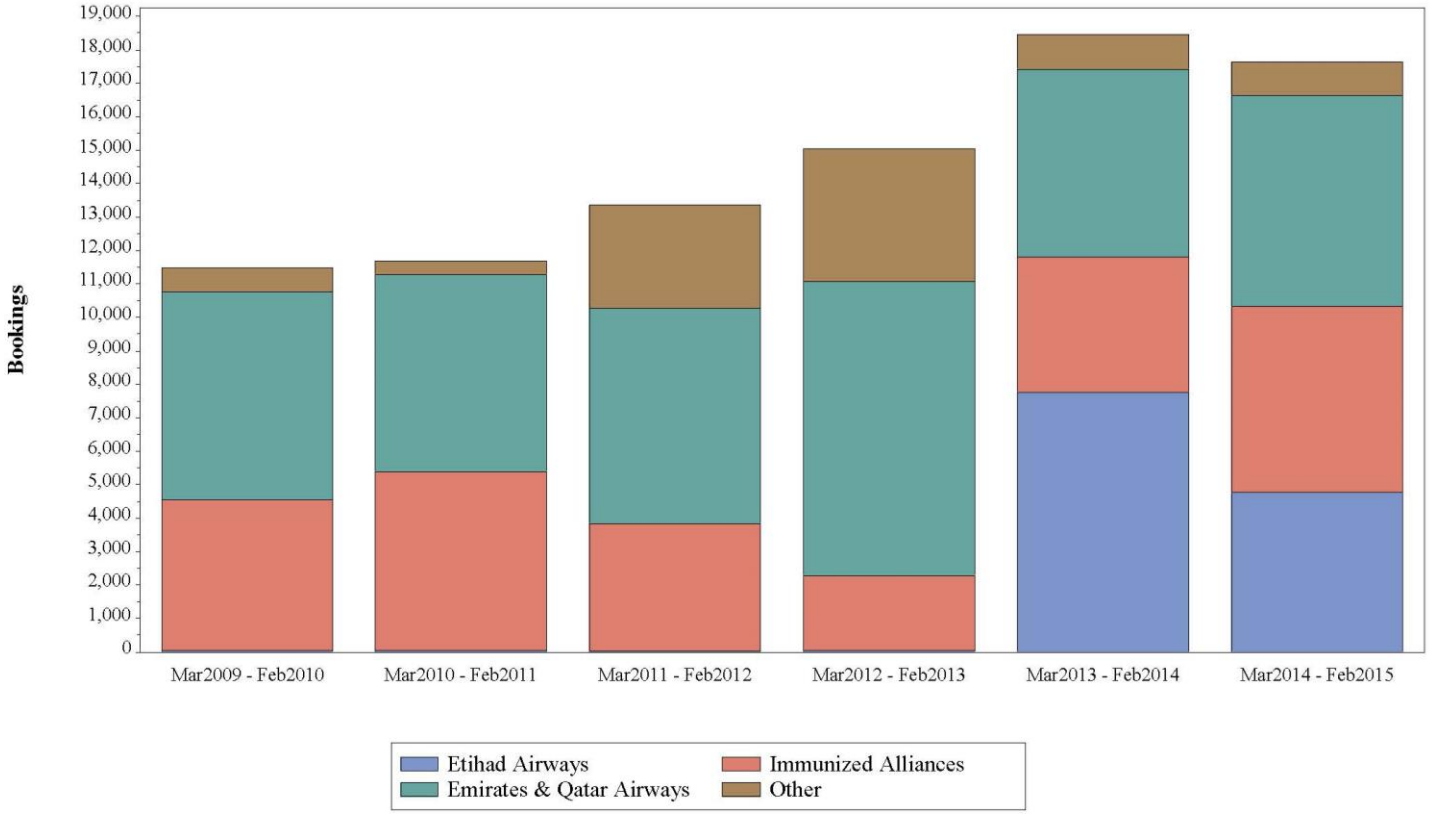
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A17
VOLUME OF TRAVEL BETWEEN WASHINGTON D.C. AND ISLAMABAD
BY CARRIER GROUP
ECONOMY CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

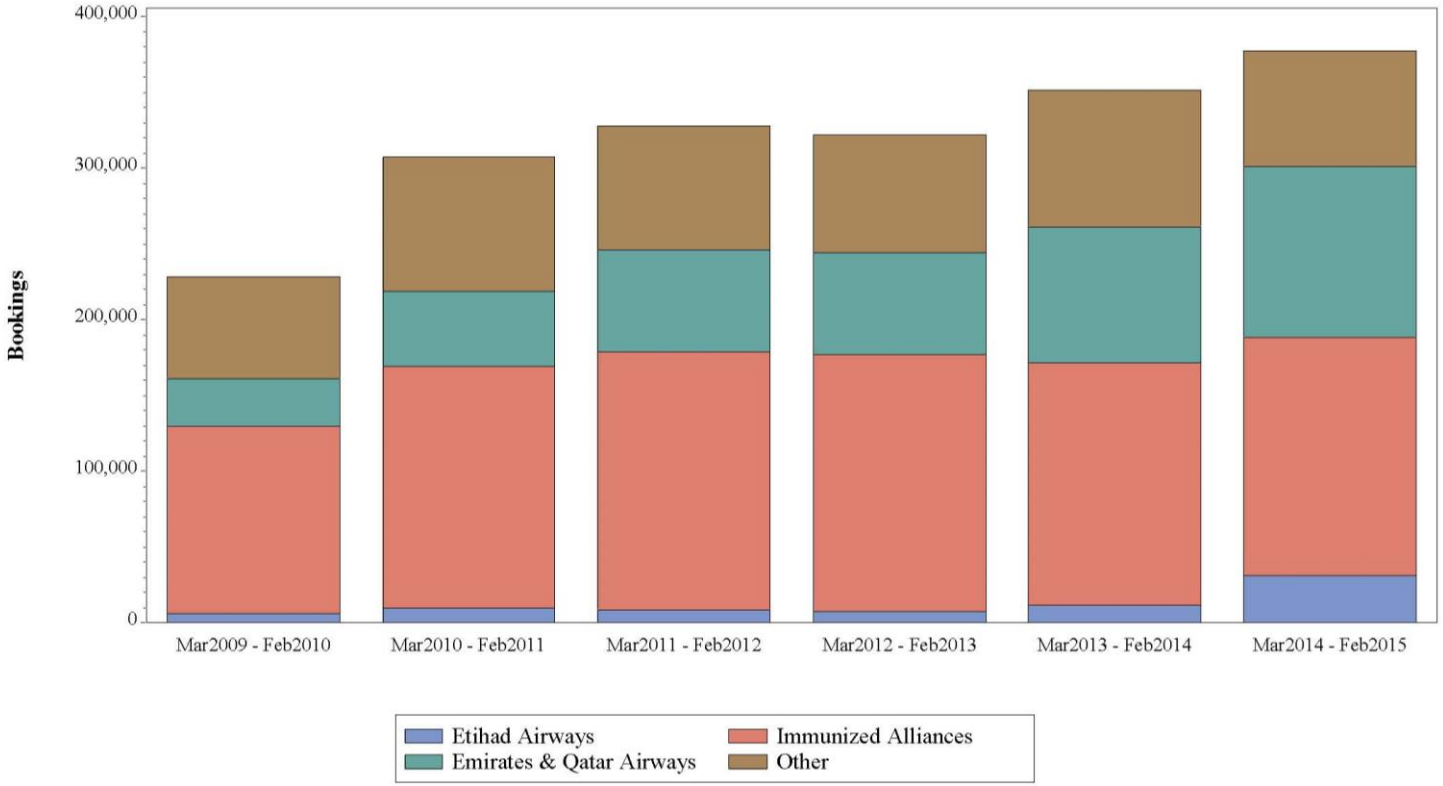
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A18
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND INDIAN SUB-CONTINENT
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

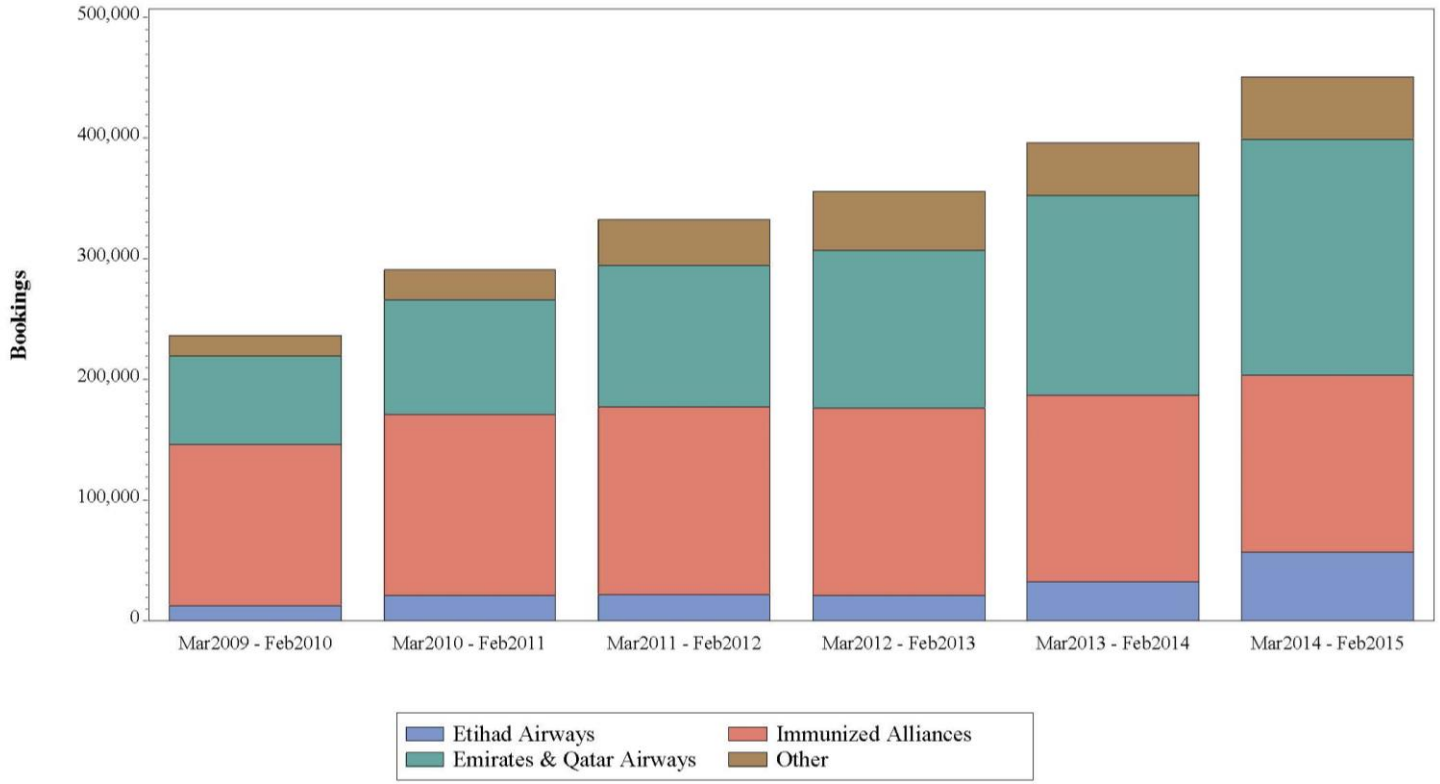
[2] Traffic flows are non-directional.

[3] Indian Sub-Continent includes Bangladesh, India, Pakistan, and Sri Lanka.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A19
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND MIDDLE EAST
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

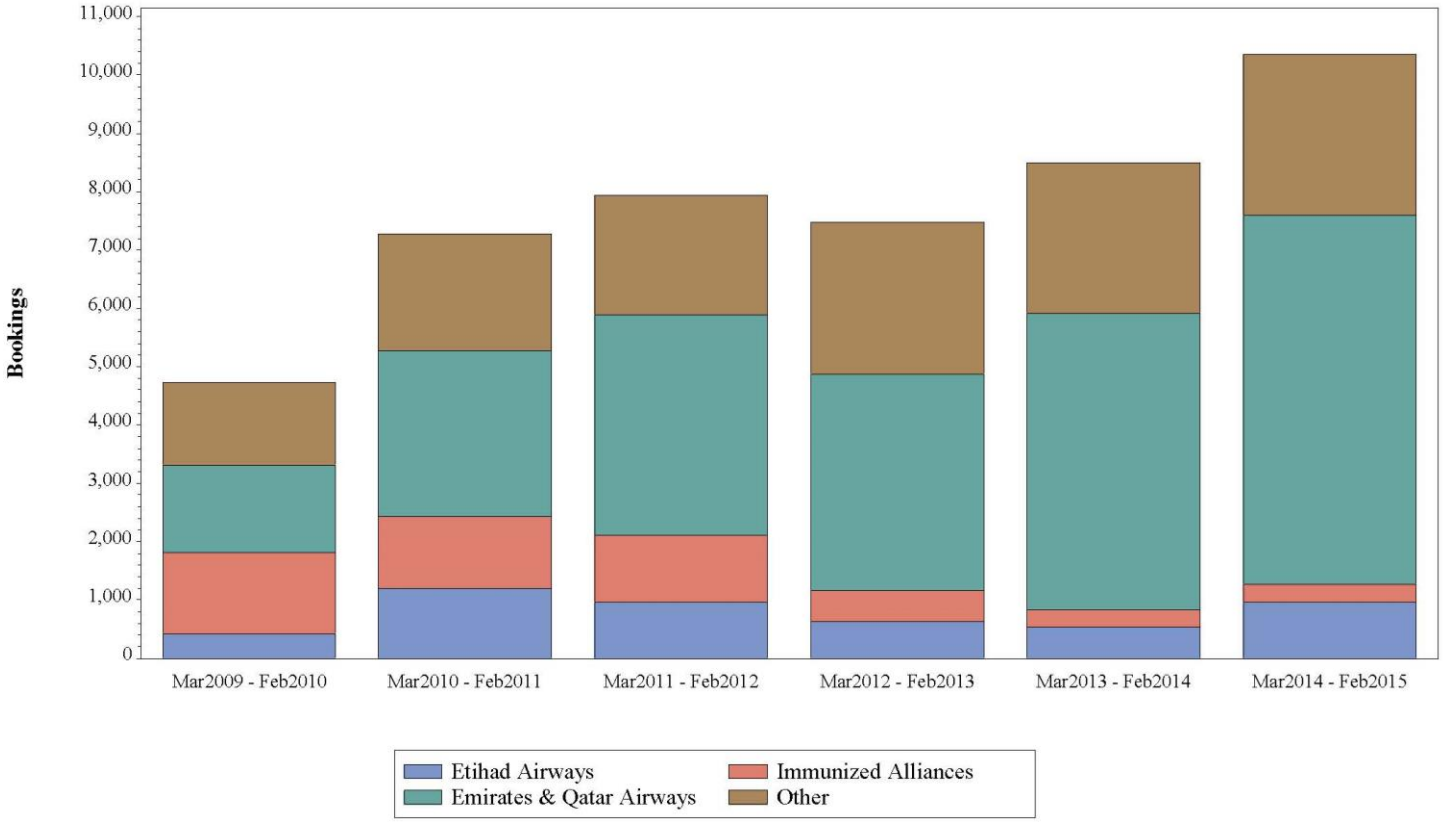
[2] Traffic flows are non-directional.

[3] Middle East includes Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen, and United Arab Emirates.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A20
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND BANGLADESH
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

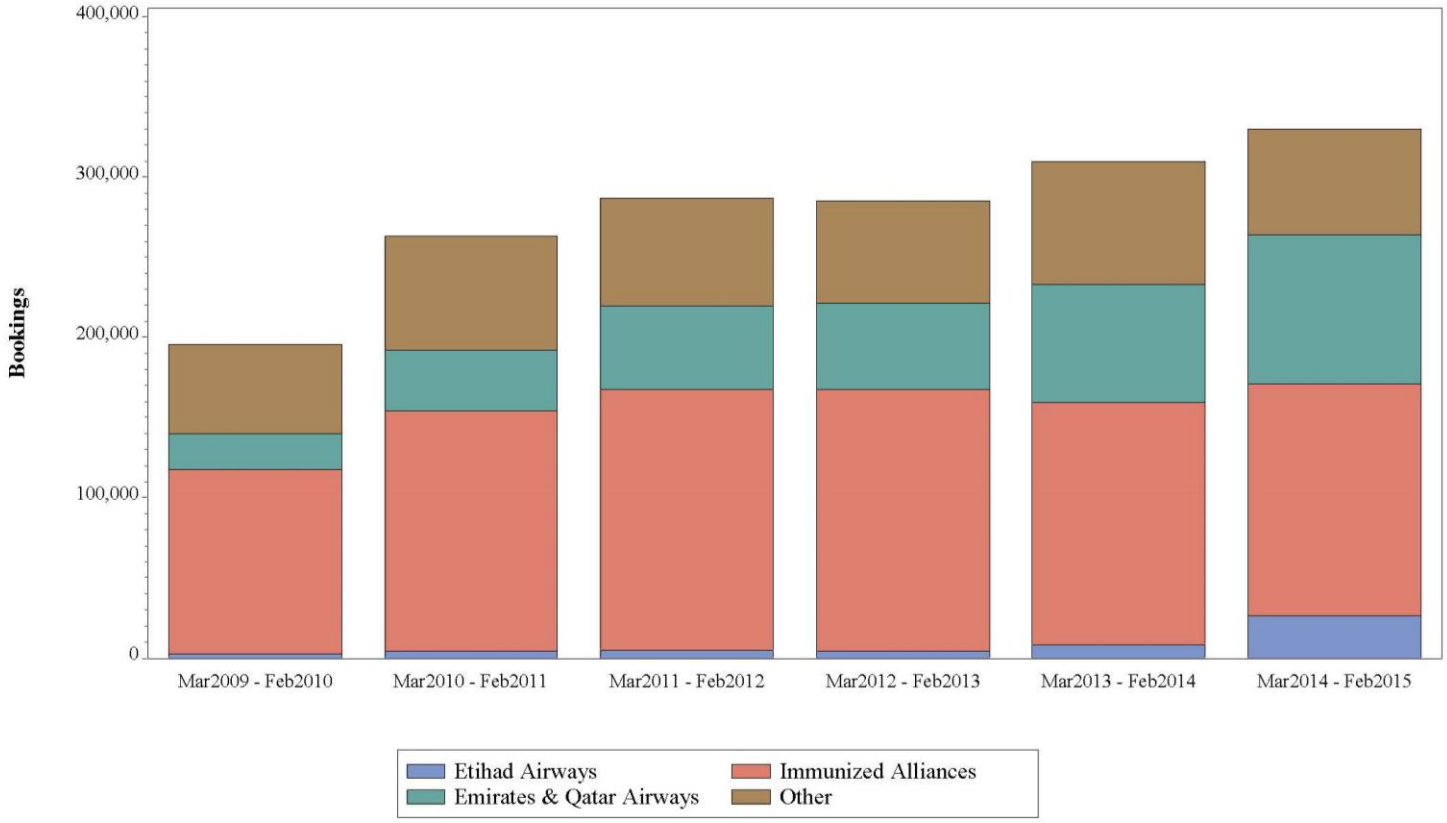
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A21
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND INDIA
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

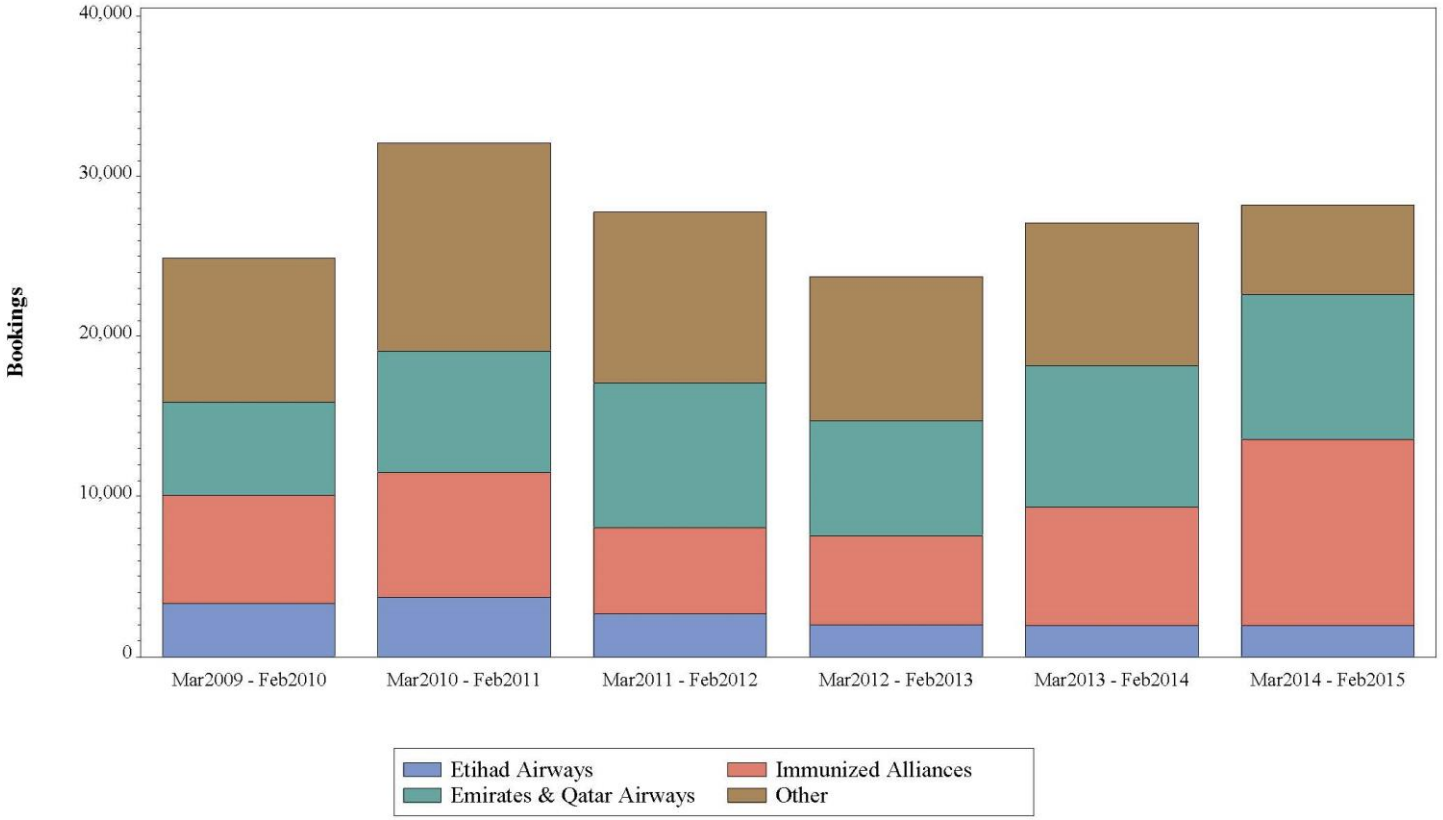
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A22
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND PAKISTAN
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

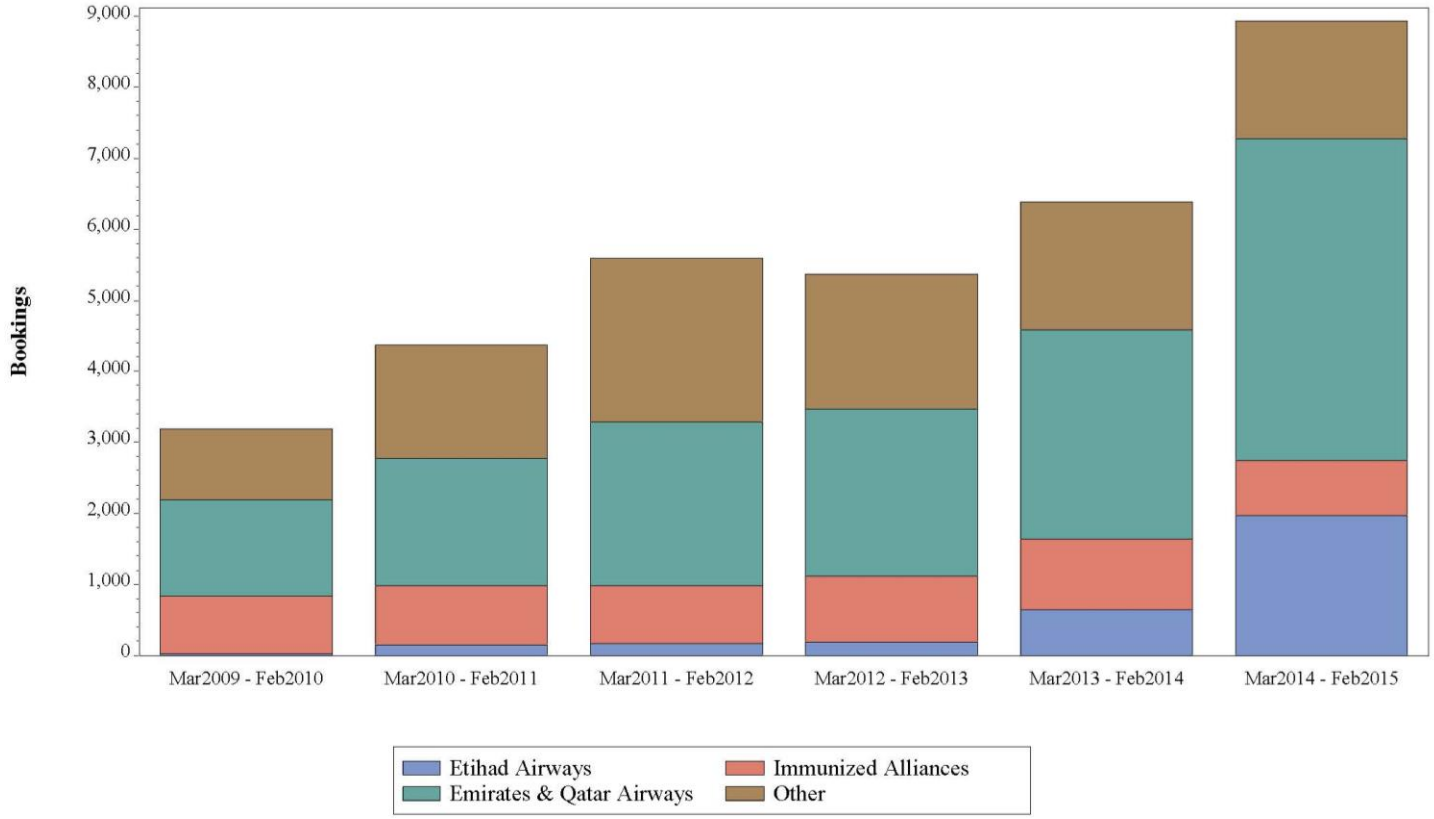
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A23
VOLUME OF TRAVEL BETWEEN THE UNITED STATES AND SRI LANKA
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

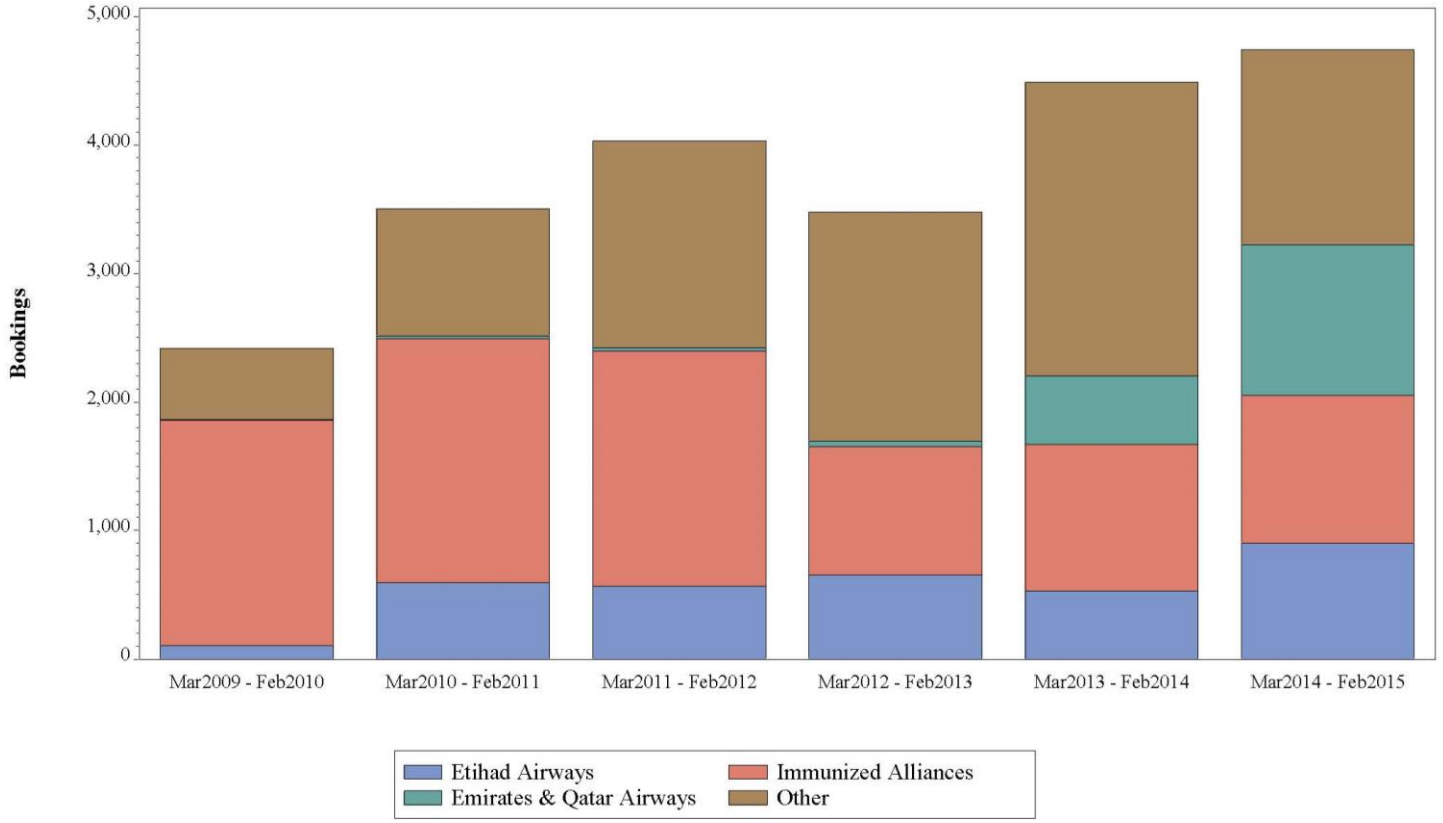
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A24
VOLUME OF TRAVEL BETWEEN CHICAGO AND HYDERABAD
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

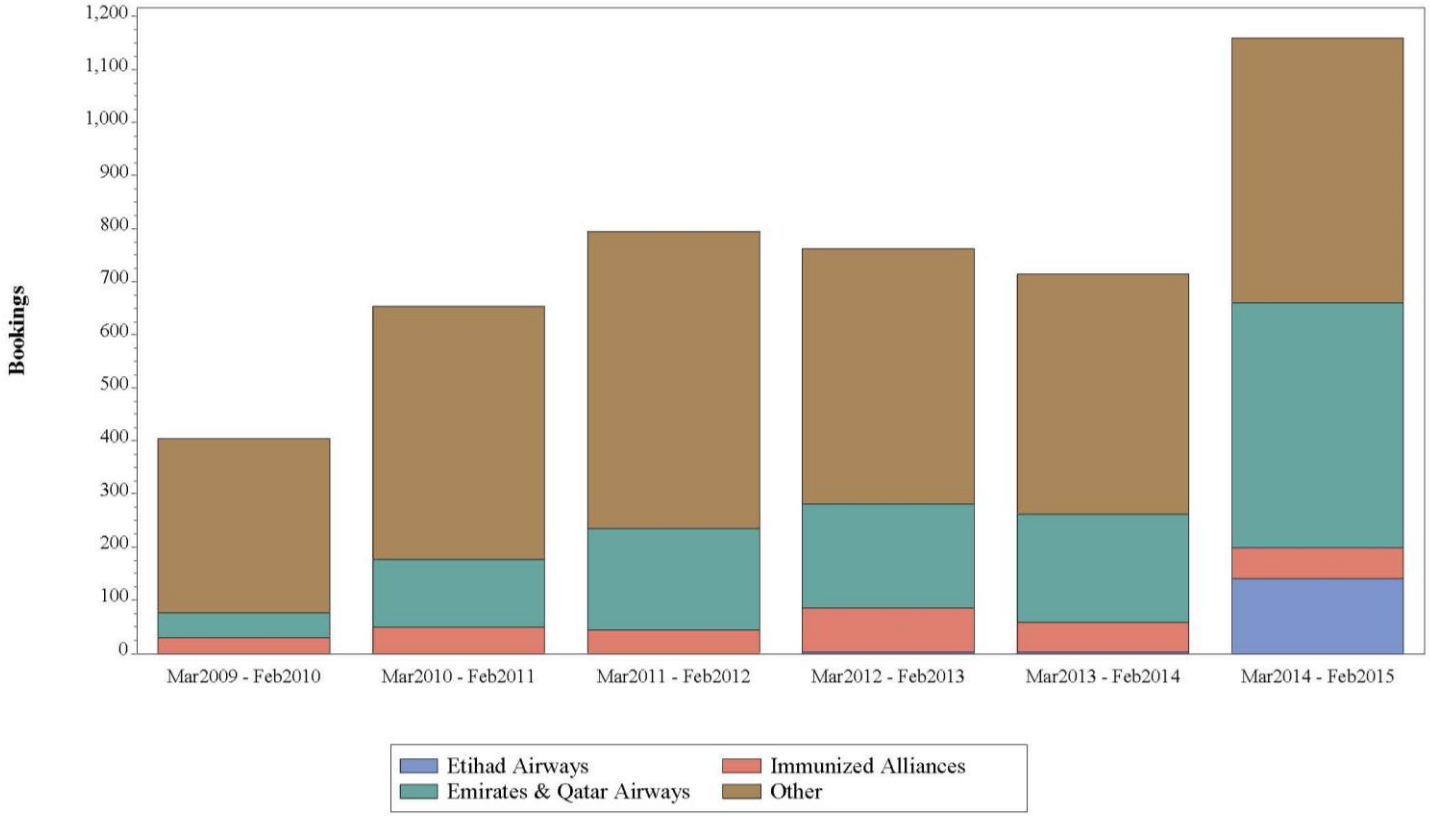
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A25
VOLUME OF TRAVEL BETWEEN LOS ANGELES AND COLOMBO
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

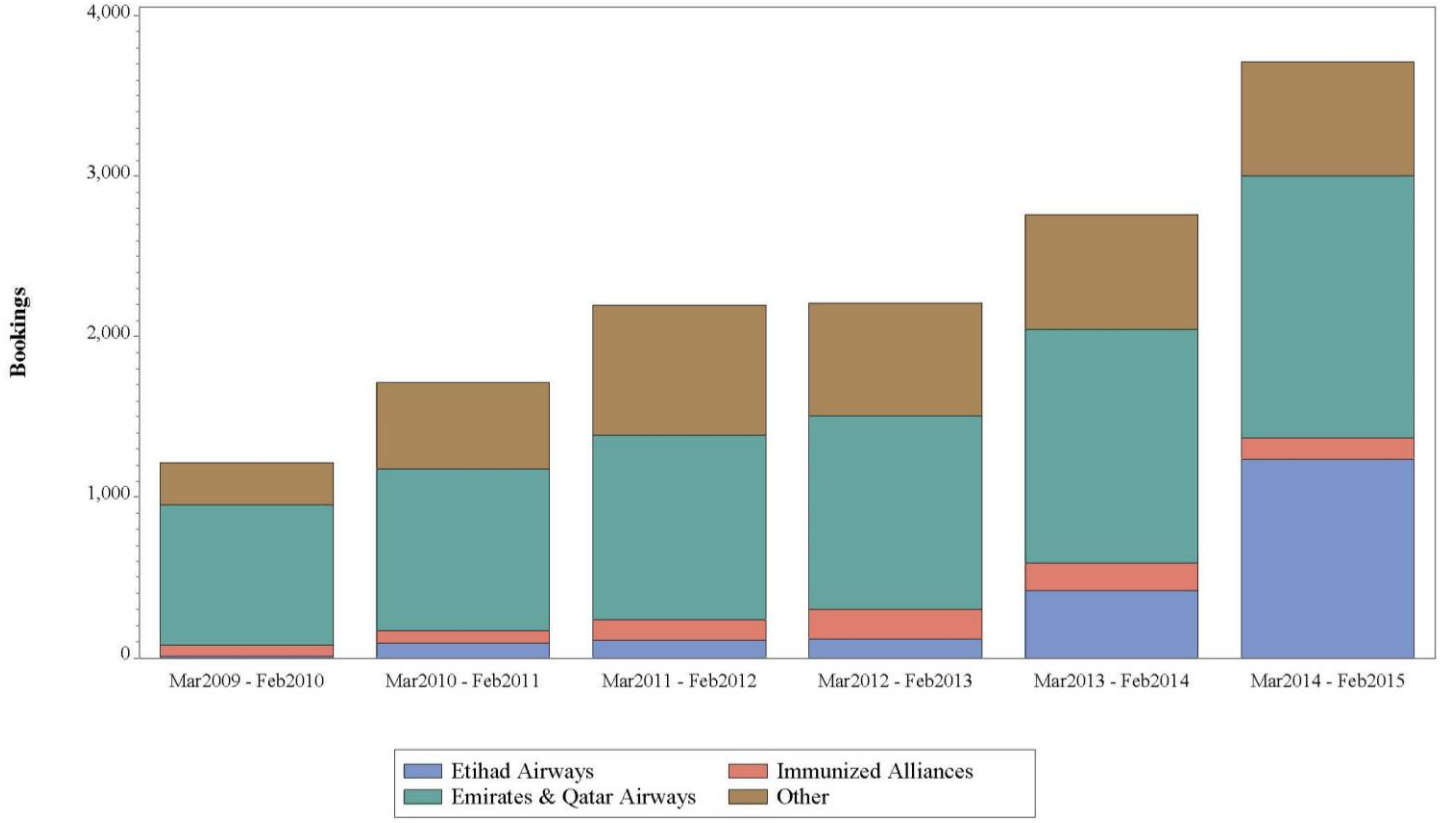
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A26
VOLUME OF TRAVEL BETWEEN NEW YORK AND COLOMBO
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

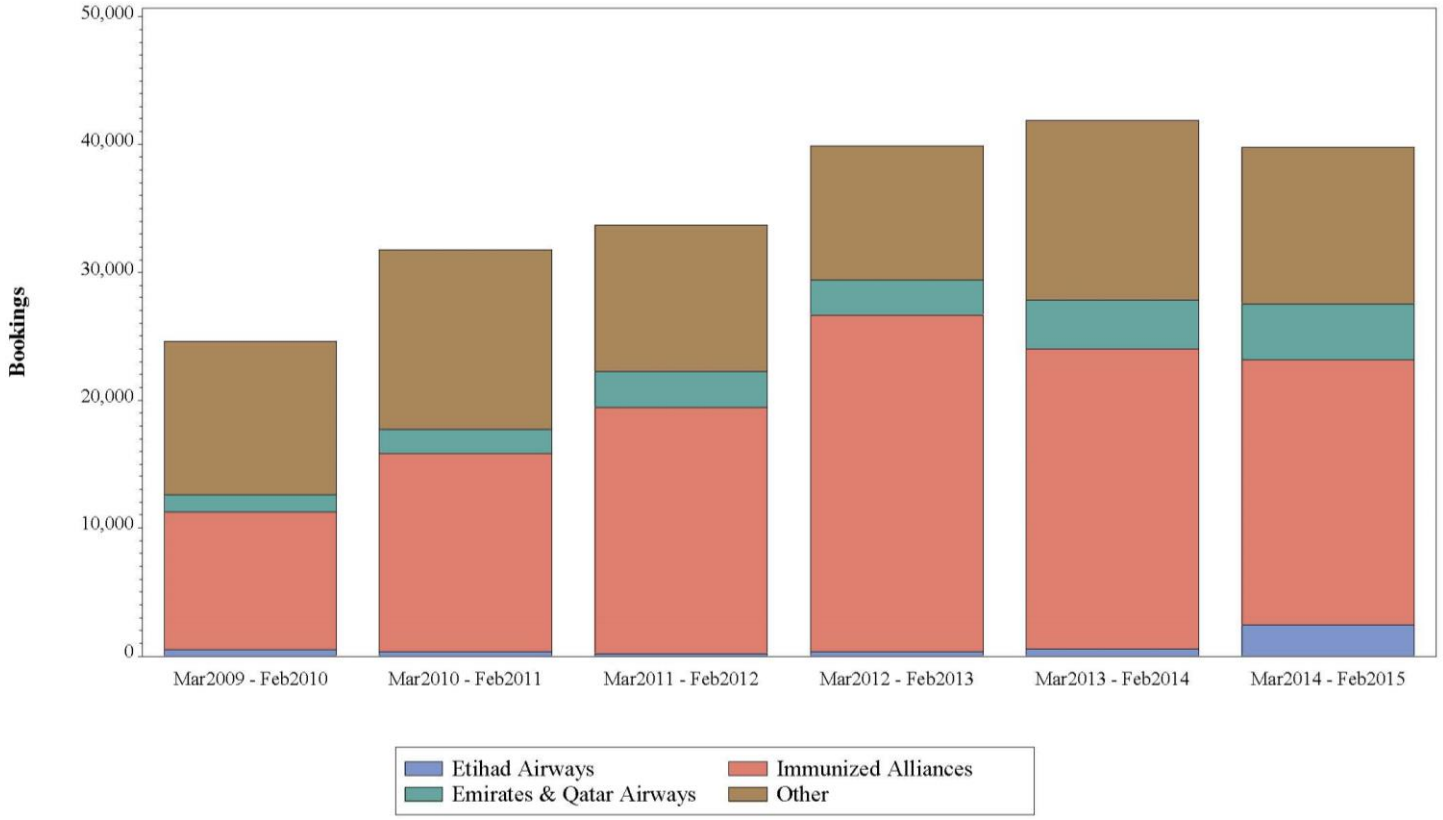
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A27
VOLUME OF TRAVEL BETWEEN NEW YORK AND DELHI
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

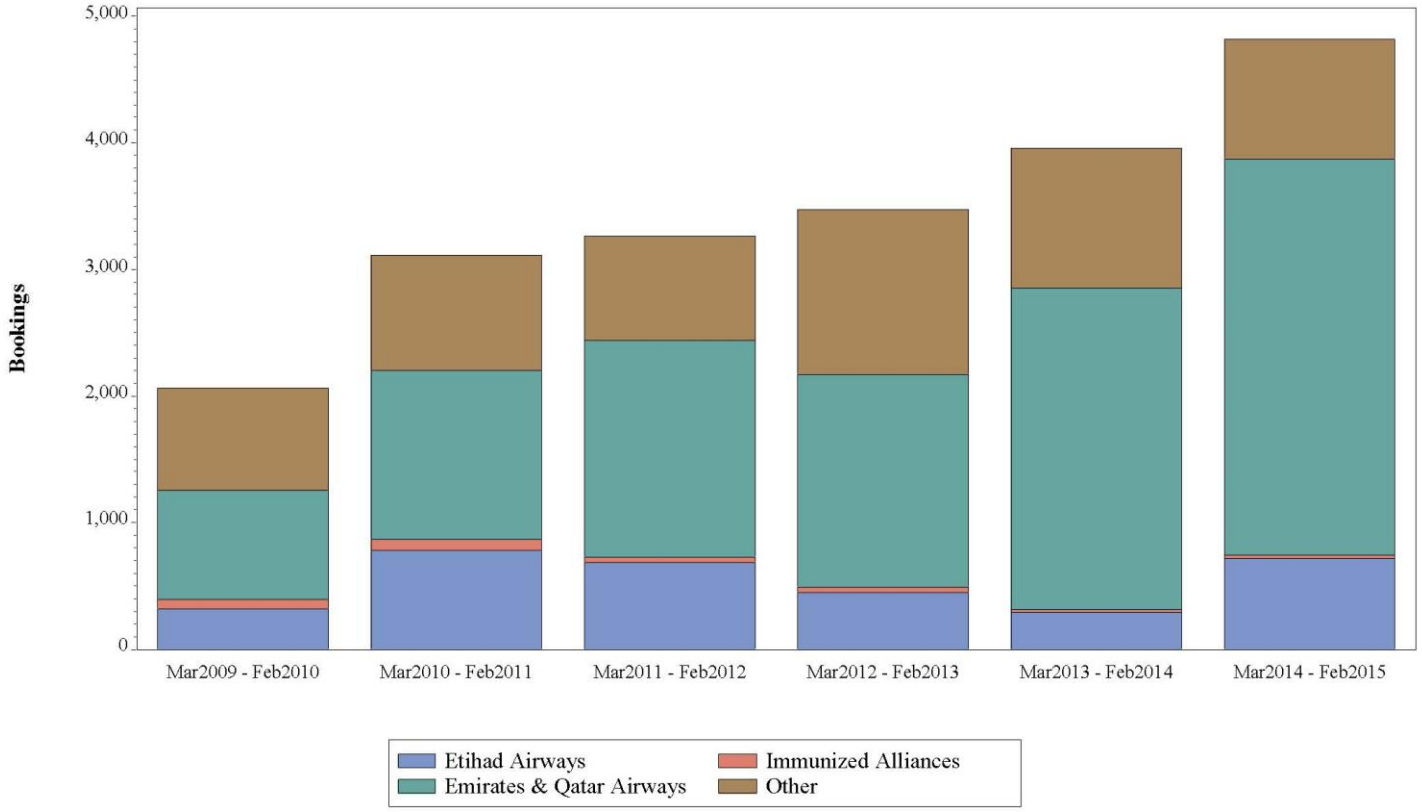
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A28
VOLUME OF TRAVEL BETWEEN NEW YORK AND DHAKA
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

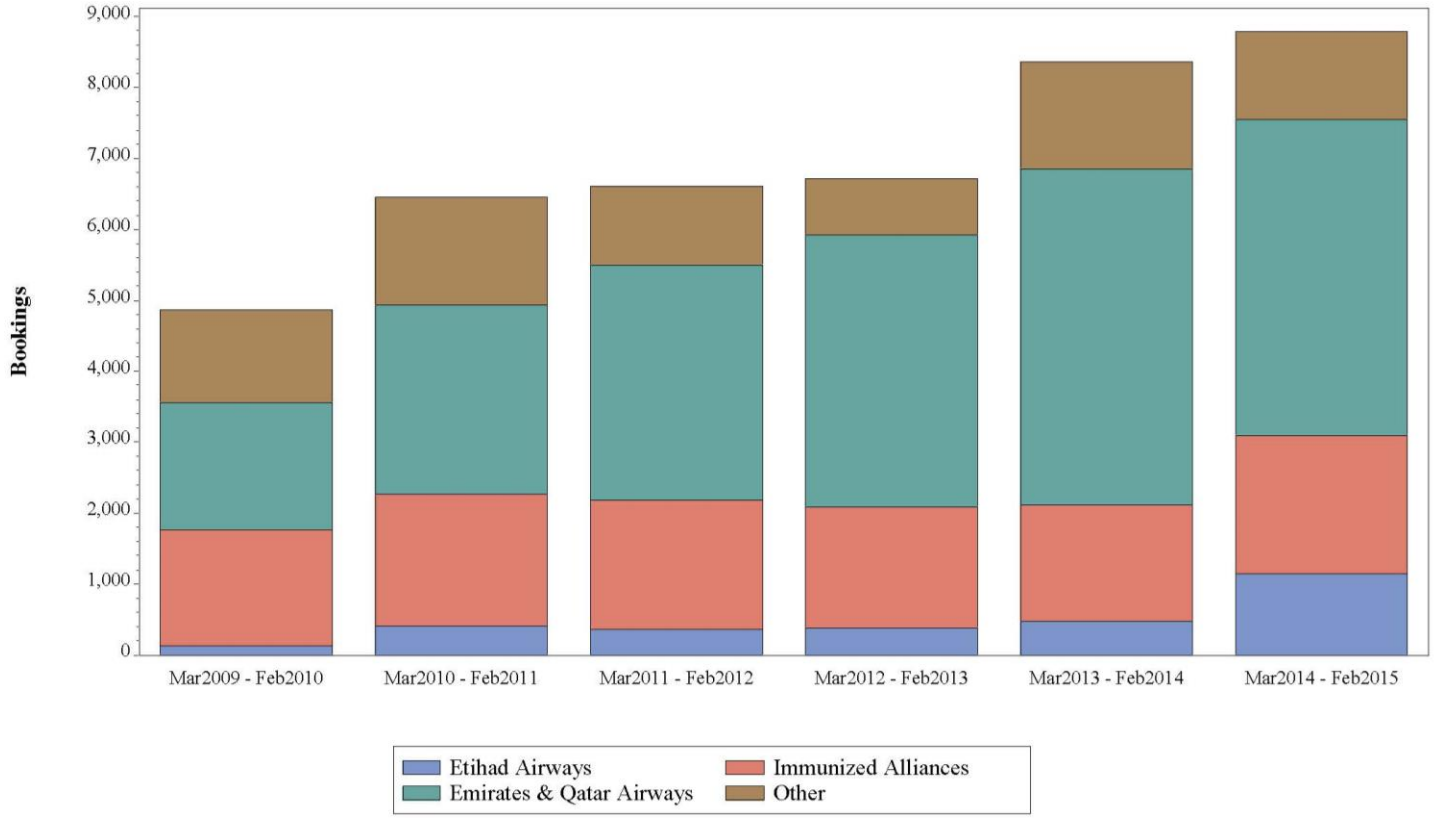
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A29
VOLUME OF TRAVEL BETWEEN NEW YORK AND HYDERABAD
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

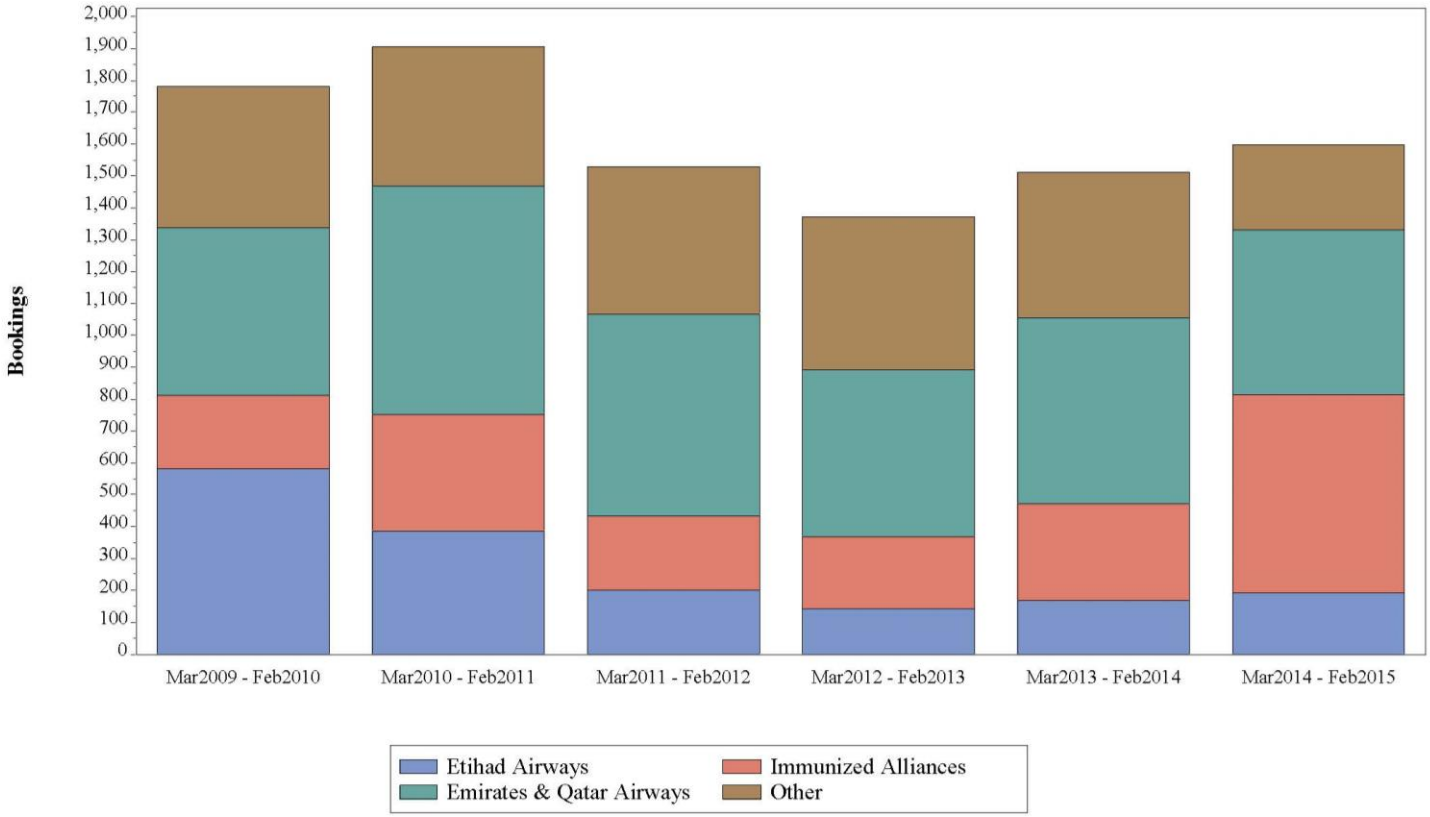
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A30
VOLUME OF TRAVEL BETWEEN NEW YORK AND ISLAMABAD
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

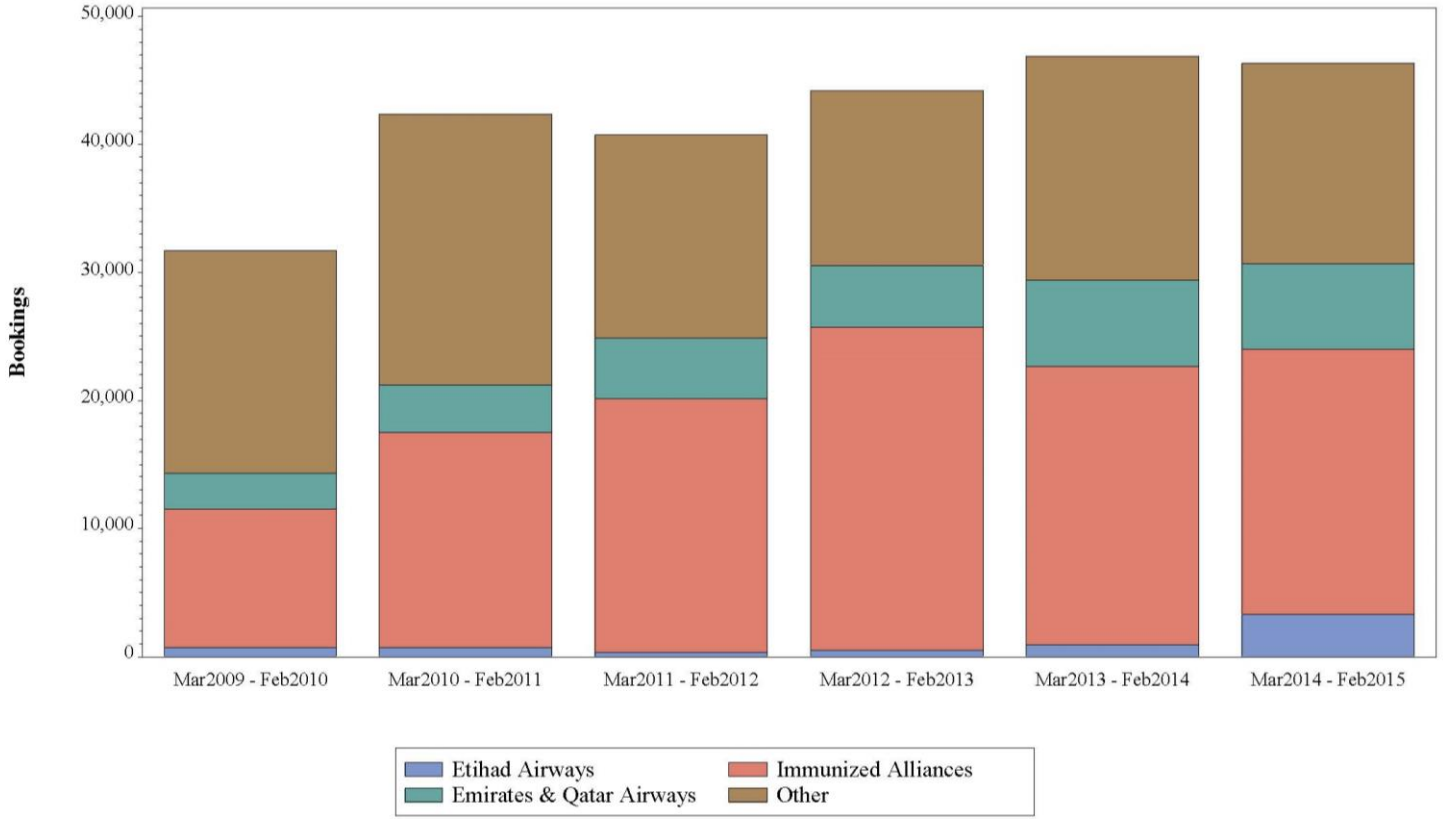
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A31
VOLUME OF TRAVEL BETWEEN NEW YORK AND MUMBAI
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

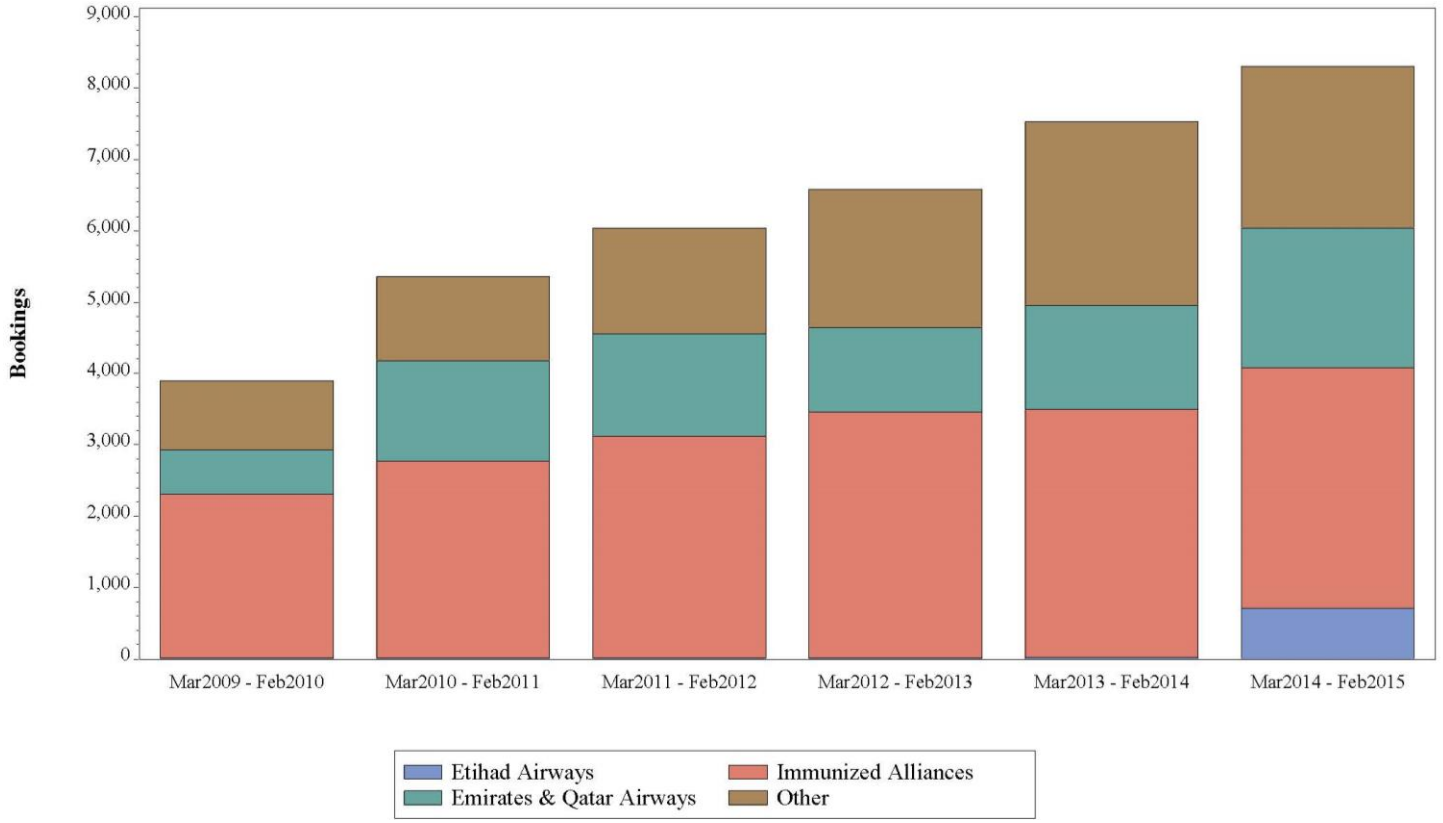
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A32
VOLUME OF TRAVEL BETWEEN SAN FRANCISCO AND DELHI
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

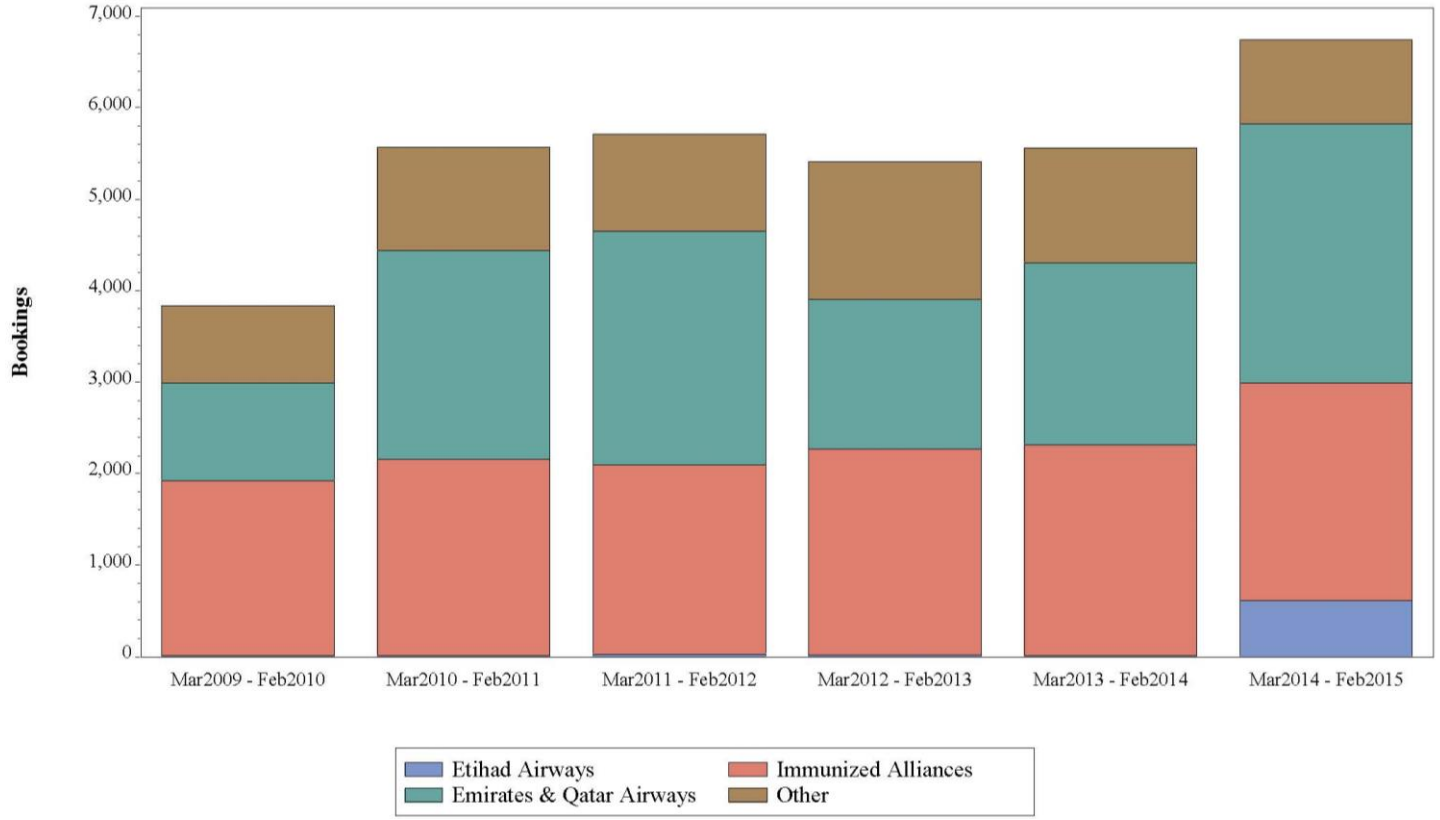
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A33
VOLUME OF TRAVEL BETWEEN SAN FRANCISCO AND MUMBAI
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

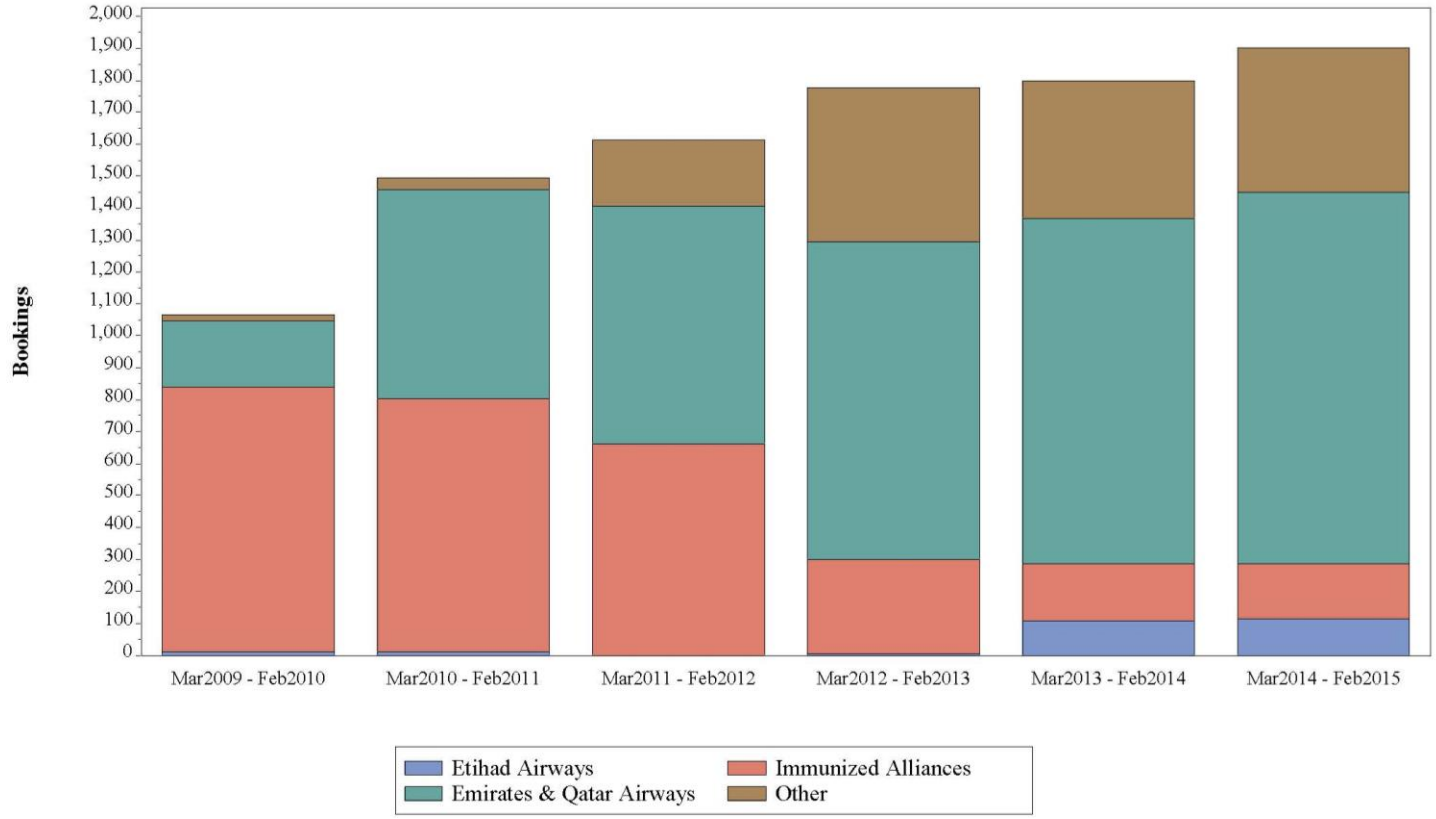
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A34
VOLUME OF TRAVEL BETWEEN WASHINGTON D.C. AND DHAKA
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

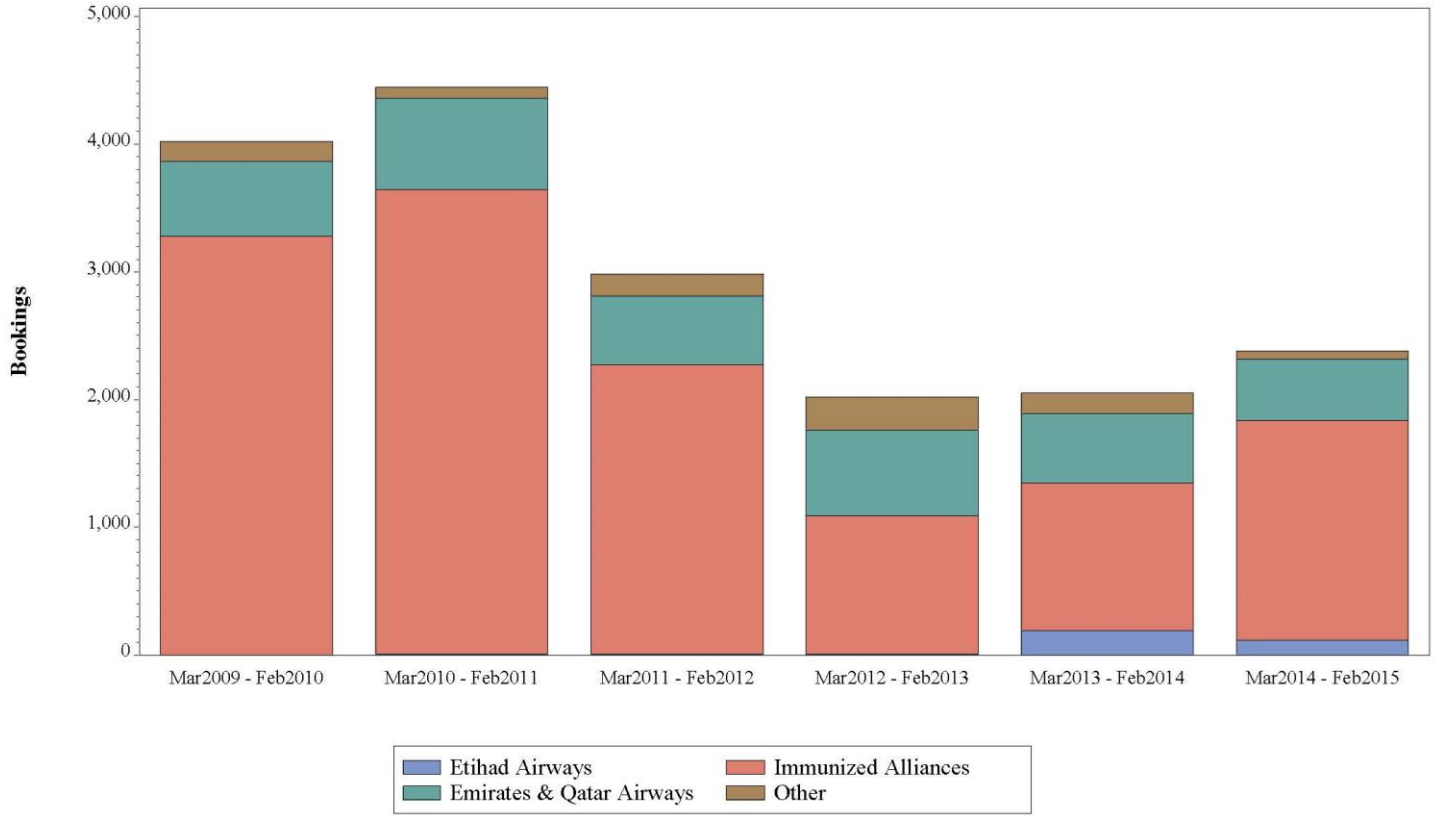
[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE A35
VOLUME OF TRAVEL BETWEEN WASHINGTON D.C. AND ISLAMABAD
BY CARRIER GROUP
PREMIUM CLASS
MARCH 2009 – FEBRUARY 2015



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

APPENDIX B

TABLE B1
SUMMARY OF CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL BETWEEN UNITED STATES AND KEY REGIONS
2009 – 2014

		Bookings				Share of Bookings		
				Difference				Percentage Point
Cabin	Region	2009	2014	Count	Percent	2009	2014	Difference
[a]	[b]	[c]	[d]	[e] = [d]-[c]	[f] = [e]/[c]	[g]	[h]	[i] = [h]-[g]
Economy	Indian Sub-Continent	1,218,094	1,441,831	223,737	18.4%	40.7%	36.3%	-4.4%
Economy	India	1,161,761	1,338,389	176,629	15.2%	45.5%	39.7%	-5.8%
Economy	Middle East	1,134,220	1,119,896	-14,324	-1.3%	73.6%	47.3%	-26.3%
Economy	Pakistan	40,108	93,347	53,240	132.7%	13.5%	25.6%	12.2%
Economy	Sri Lanka	6,531	6,493	-38	-0.6%	22.4%	11.8%	-10.5%
Economy	Bangladesh	9,695	3,602	-6,093	-62.8%	8.6%	2.0%	-6.7%
Premium	Indian Sub-Continent	123,948	157,752	33,805	27.3%	54.3%	41.8%	-12.5%
Premium	Middle East	133,594	147,418	13,825	10.3%	56.5%	32.7%	-23.8%
Premium	India	114,958	145,008	30,051	26.1%	58.8%	44.0%	-14.8%
Premium	Pakistan	6,796	11,666	4,871	71.7%	27.3%	41.4%	14.1%
Premium	Sri Lanka	804	771	-33	-4.1%	25.2%	8.6%	-16.6%
Premium	Bangladesh	1,391	307	-1,084	-77.9%	29.4%	3.0%	-26.4%

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] **Indian Sub-Continent** includes Bangladesh, India, Pakistan, Sri Lanka, and Nepal.

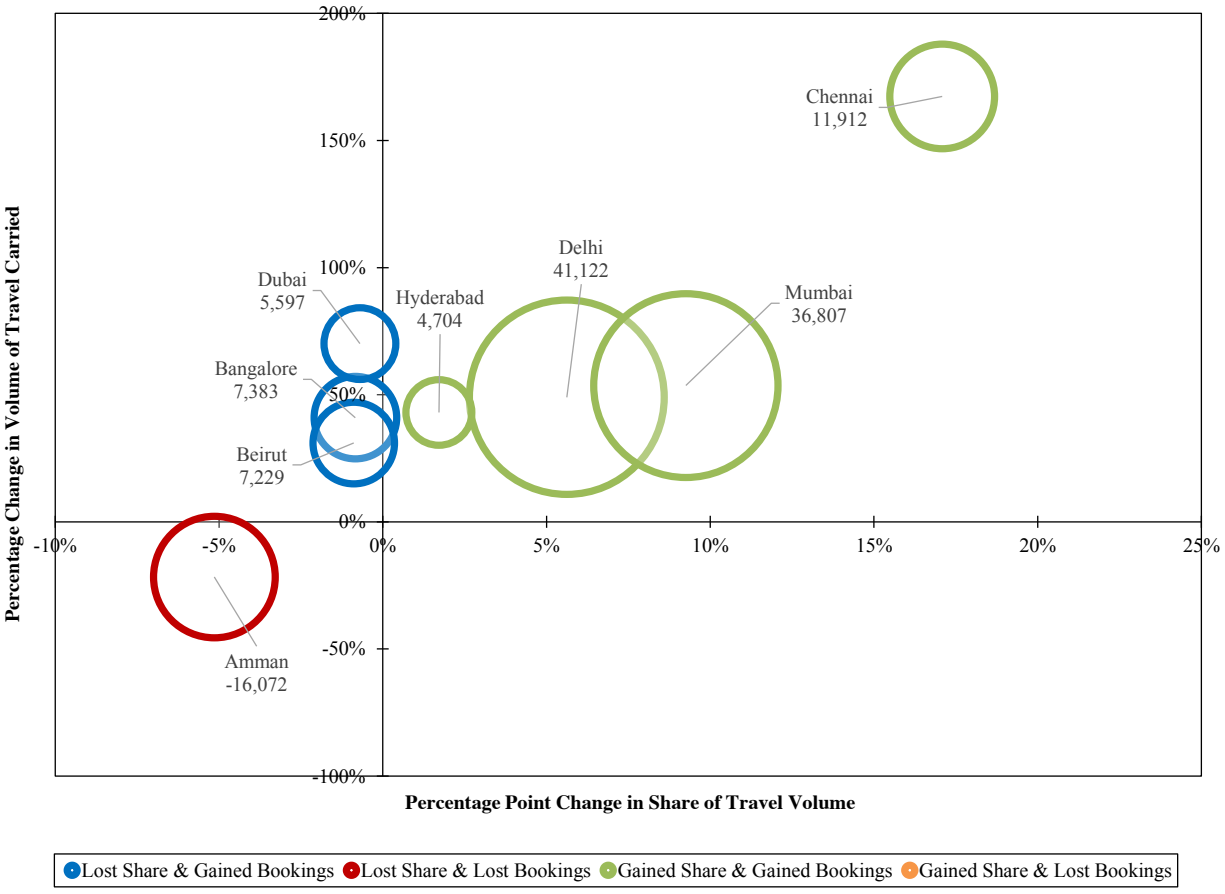
Middle East includes Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen, and United Arab Emirates.

[4] Traffic flows are non-directional.

Sources:

MIDT; U.S. DOT Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B1
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN NEW YORK AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

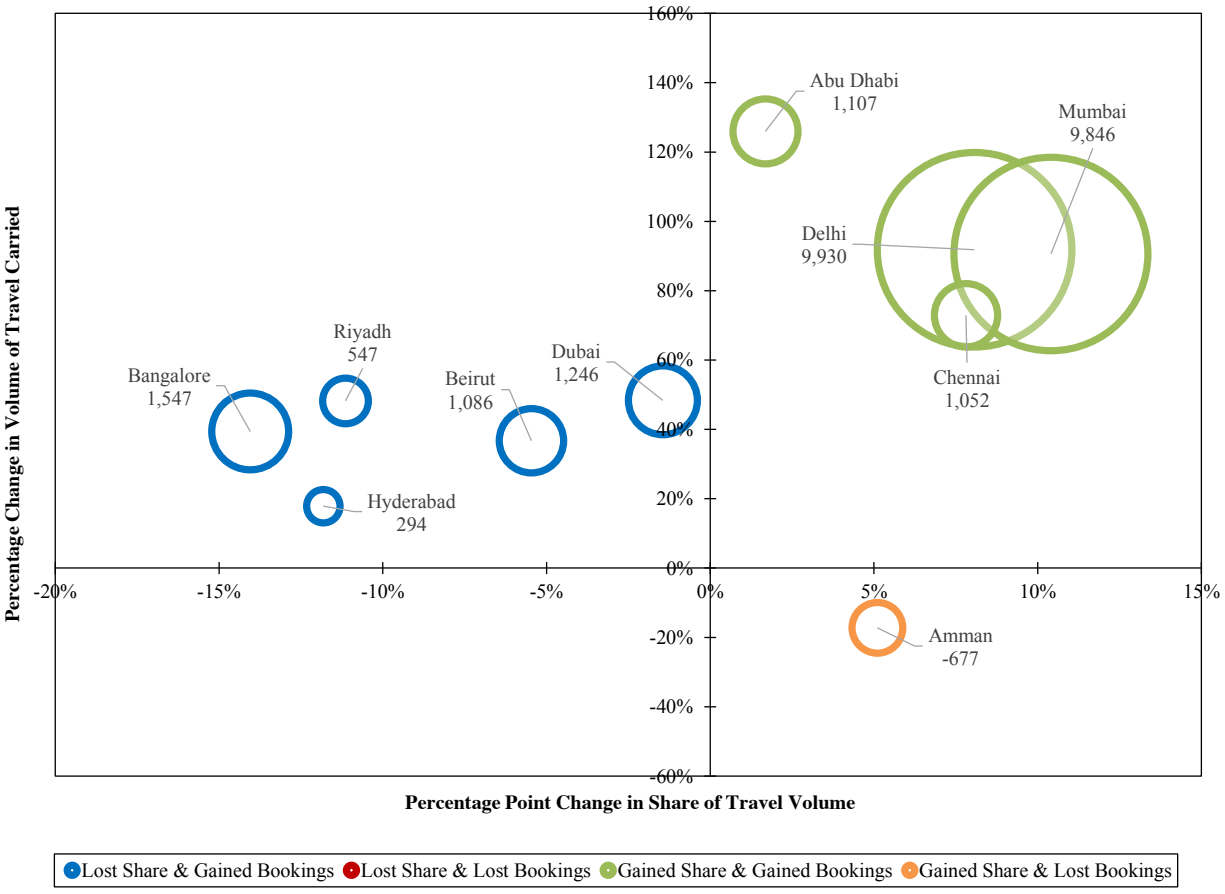
[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

[4] Lahore and Islamabad are not shown. Immunized Carriers served 15,317 more passengers between New York and Lahore in 2014 than 2009, constituting an increase of 3,200 percent; they served 8,169 more passengers between New York and Islamabad in 2014 than 2009, constituting an increase of 1,400 percent. The corresponding increases in shares of overall travel were 19 and 25 percentage points, respectively.

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B2
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN NEW YORK AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

TABLE B2
SUMMARY OF CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL BETWEEN NEW YORK AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
2009 – 2014

		Bookings				Share of Bookings		
				Difference				Percentage Point
Cabin	City	2009	2014	Count	Percent	2009	2014	Difference
[a]	[b]	[c]	[d]	[e] = [d]-[c]	[f] = [e]/[c]	[g]	[h]	[i] = [h]-[g]
Economy	Delhi	83,933	125,055	41,122	49.0%	40.5%	46.1%	5.6%
Economy	Mumbai	68,682	105,488	36,807	53.6%	34.2%	43.4%	9.3%
Economy	Amman	74,081	58,009	-16,072	-21.7%	96.8%	91.7%	-5.1%
Economy	Beirut	23,326	30,554	7,229	31.0%	87.3%	86.5%	-0.9%
Economy	Bangalore	18,010	25,392	7,383	41.0%	38.3%	37.5%	-0.8%
Economy	Chennai	7,120	19,031	11,912	167.3%	8.7%	25.8%	17.1%
Economy	Lahore	479	15,795	15,317	3200.9%	0.5%	19.4%	18.8%
Economy	Hyderabad	10,934	15,637	4,704	43.0%	13.8%	15.5%	1.7%
Economy	Dubai	7,984	13,581	5,597	70.1%	14.2%	13.5%	-0.7%
Economy	Islamabad	584	8,752	8,169	1399.9%	2.0%	26.9%	25.0%
Premium	Delhi	10,814	20,743	9,930	91.8%	44.0%	52.1%	8.1%
Premium	Mumbai	10,868	20,713	9,846	90.6%	34.3%	44.7%	10.4%
Premium	Bangalore	3,925	5,471	1,547	39.4%	55.5%	41.5%	-14.0%
Premium	Beirut	2,958	4,043	1,086	36.7%	96.0%	90.5%	-5.5%
Premium	Dubai	2,576	3,822	1,246	48.4%	12.1%	10.6%	-1.4%
Premium	Amman	3,929	3,252	-677	-17.2%	89.4%	94.5%	5.1%
Premium	Chennai	1,443	2,494	1,052	72.9%	24.3%	32.1%	7.8%
Premium	Abu Dhabi	879	1,985	1,107	126.0%	10.4%	12.0%	1.7%
Premium	Hyderabad	1,647	1,941	294	17.9%	33.9%	22.1%	-11.8%
Premium	Riyadh	1,134	1,680	547	48.2%	27.2%	16.0%	-11.1%

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

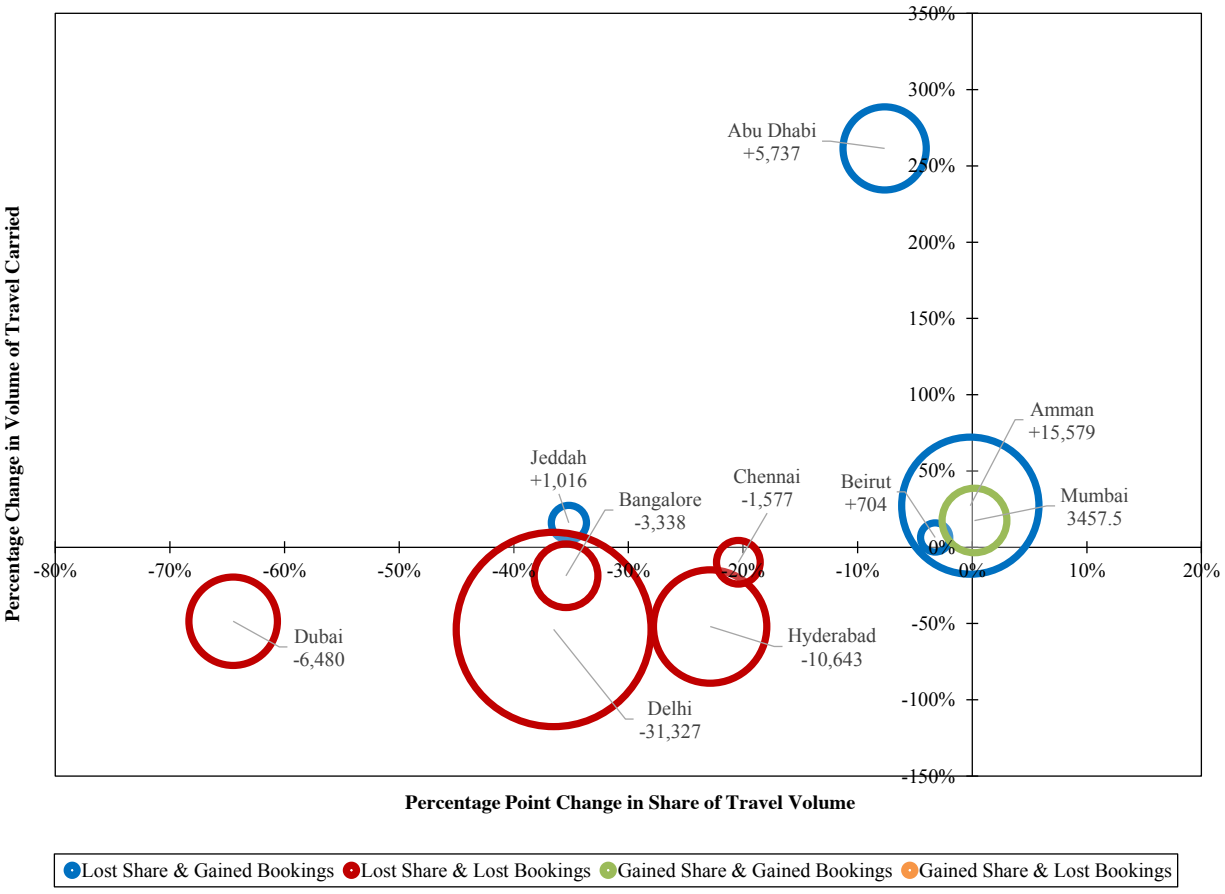
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional.

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B3
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN CHICAGO AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

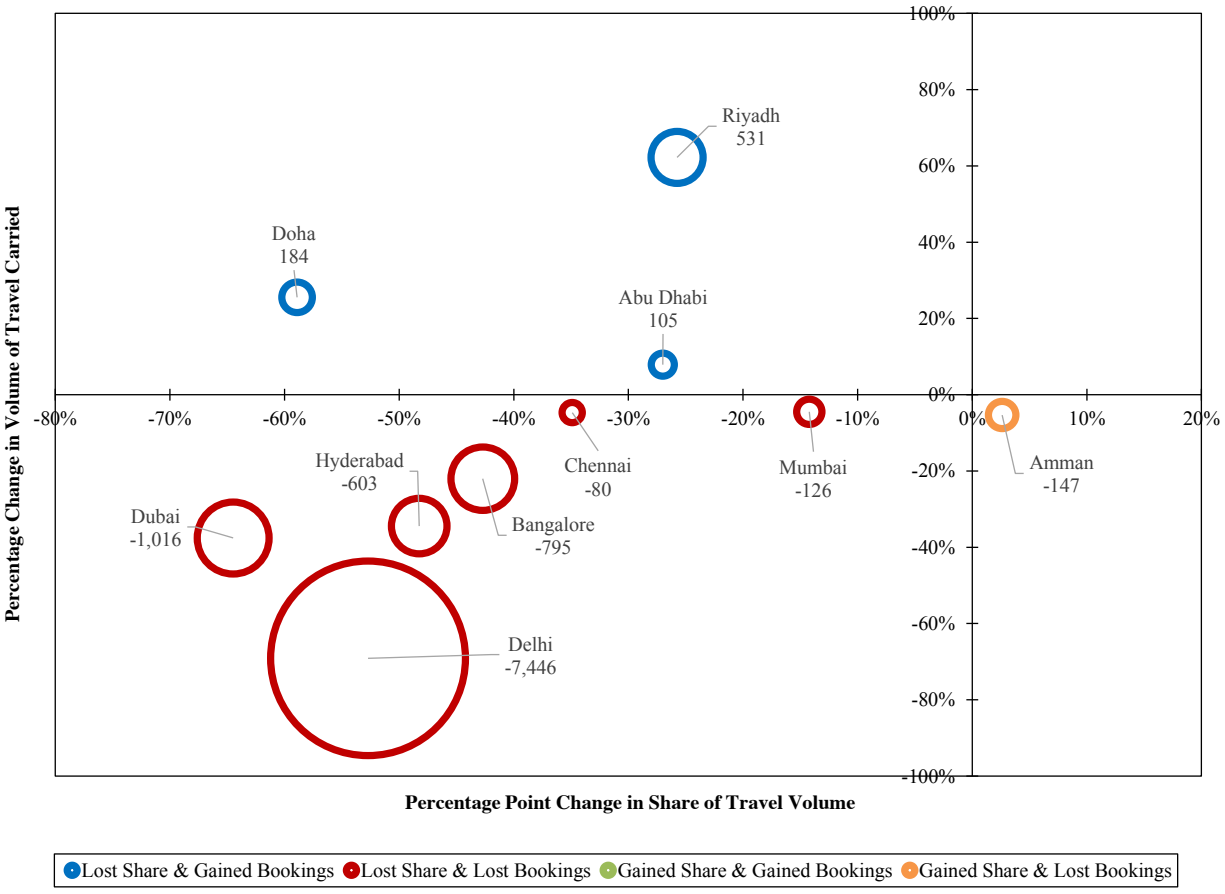
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B4
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN CHICAGO AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

TABLE B3
SUMMARY OF CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL BETWEEN CHICAGO AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
2009 – 2014

		Bookings				Share of Bookings		
				Difference				Percentage Point
Cabin	City	2009	2014	Count	Percent	2009	2014	Difference
[a]	[b]	[c]	[d]	[e] = [d]-[c]	[f] = [e]/[c]	[g]	[h]	[i] = [h]-[g]
Economy	Amman	57,103	72,682	15,579	27.3%	96.1%	95.9%	-0.2%
Economy	Delhi	58,144	26,817	-31,327	-53.9%	70.3%	33.7%	-36.5%
Economy	Mumbai	19,708	23,165	3,458	17.5%	43.4%	43.6%	0.2%
Economy	Bangalore	17,873	14,535	-3,338	-18.7%	75.9%	40.4%	-35.4%
Economy	Chennai	16,003	14,426	-1,577	-9.9%	52.5%	32.1%	-20.4%
Economy	Beirut	11,066	11,770	704	6.4%	89.8%	86.6%	-3.2%
Economy	Hyderabad	20,495	9,852	-10,643	-51.9%	35.2%	12.3%	-22.9%
Economy	Abu Dhabi	2,194	7,931	5,737	261.5%	35.3%	27.6%	-7.6%
Economy	Jeddah	6,339	7,355	1,016	16.0%	85.9%	50.7%	-35.2%
Economy	Dubai	13,350	6,870	-6,480	-48.5%	92.3%	27.8%	-64.5%
Premium	Delhi	10,771	3,325	-7,446	-69.1%	86.2%	33.5%	-52.7%
Premium	Bangalore	3,609	2,814	-795	-22.0%	93.3%	50.6%	-42.7%
Premium	Mumbai	2,805	2,679	-126	-4.5%	57.1%	42.9%	-14.2%
Premium	Amman	2,764	2,617	-147	-5.3%	96.1%	98.7%	2.6%
Premium	Dubai	2,704	1,688	-1,016	-37.6%	91.5%	27.0%	-64.5%
Premium	Chennai	1,702	1,622	-80	-4.7%	79.9%	45.0%	-34.9%
Premium	Abu Dhabi	1,329	1,433	105	7.9%	47.0%	20.0%	-27.0%
Premium	Riyadh	853	1,384	531	62.3%	86.0%	60.3%	-25.8%
Premium	Hyderabad	1,751	1,148	-603	-34.4%	72.5%	24.2%	-48.3%
Premium	Doha	719	902	184	25.5%	80.1%	21.2%	-58.9%

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

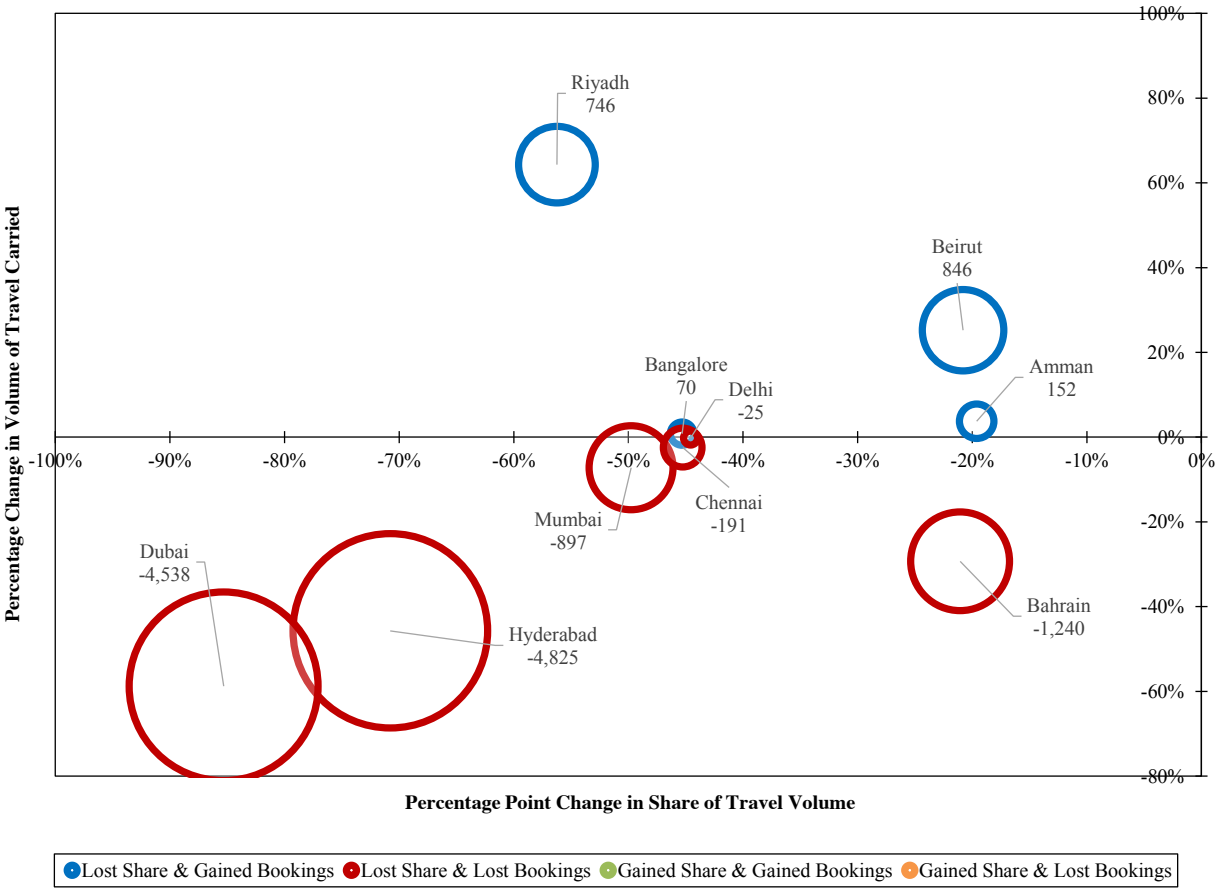
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional.

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B5
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN DALLAS AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

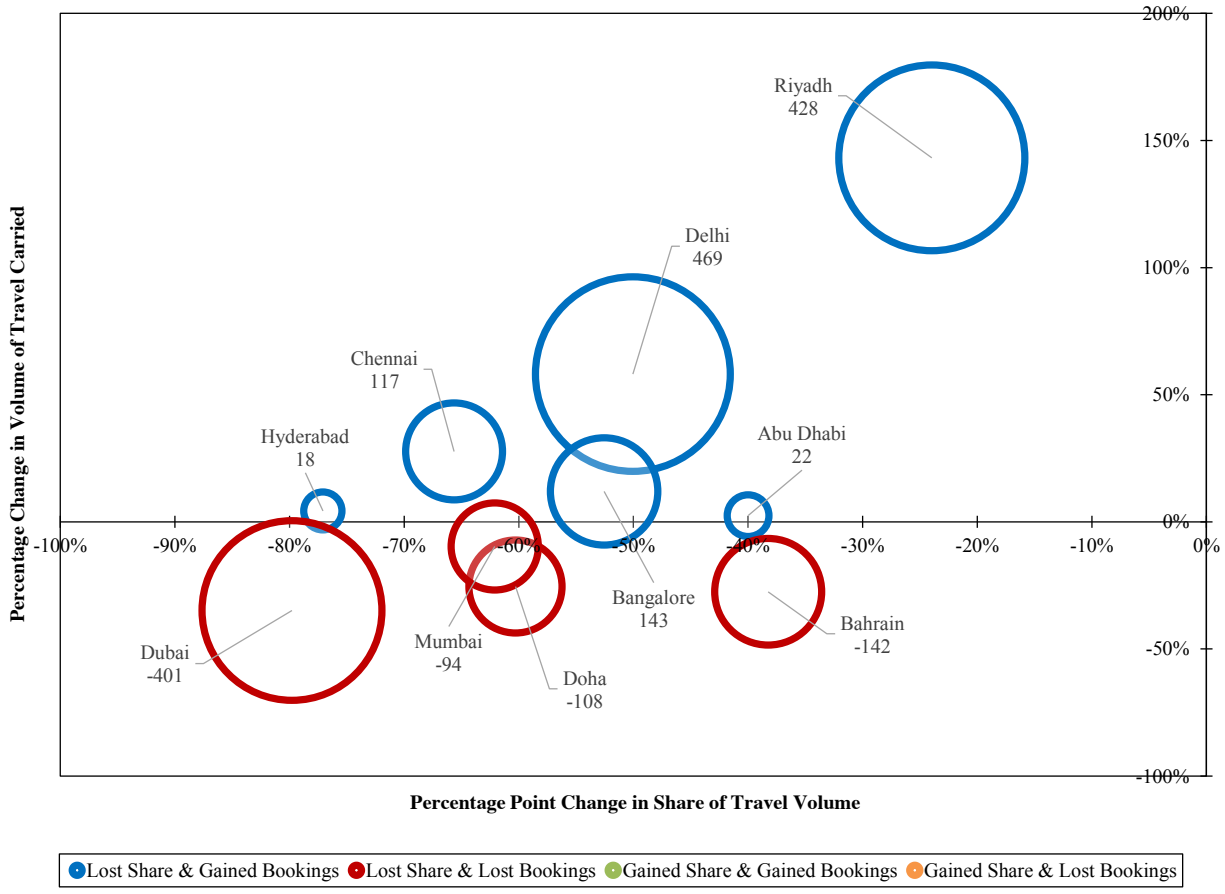
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B6
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN DALLAS AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

TABLE B4
SUMMARY OF CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL BETWEEN DALLAS AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
2009 – 2014

		Bookings				Share of Bookings		
				Difference				Percentage Point
Cabin	City	2009	2014	Count	Percent	2009	2014	Difference
[a]	[b]	[c]	[d]	[e] = [d]-[c]	[f] = [e]/[c]	[g]	[h]	[i] = [h]-[g]
Economy	Mumbai	12,402	11,505	-897	-7.2%	90.8%	41.1%	-49.8%
Economy	Delhi	11,213	11,188	-25	-0.2%	93.1%	48.5%	-44.6%
Economy	Bangalore	8,529	8,598	70	0.8%	93.0%	47.7%	-45.3%
Economy	Chennai	7,728	7,537	-191	-2.5%	79.6%	34.4%	-45.3%
Economy	Hyderabad	10,554	5,729	-4,825	-45.7%	87.9%	17.1%	-70.8%
Economy	Amman	4,076	4,228	152	3.7%	98.0%	78.4%	-19.6%
Economy	Beirut	3,354	4,199	846	25.2%	99.8%	79.0%	-20.8%
Economy	Dubai	7,718	3,180	-4,538	-58.8%	93.9%	8.6%	-85.3%
Economy	Bahrain	4,231	2,991	-1,240	-29.3%	74.0%	53.0%	-21.1%
Economy	Riyadh	1,160	1,906	746	64.3%	97.2%	40.9%	-56.2%
Premium	Bangalore	1,193	1,335	143	11.9%	97.9%	45.4%	-52.6%
Premium	Delhi	807	1,276	469	58.1%	95.7%	45.7%	-50.0%
Premium	Abu Dhabi	872	893	22	2.5%	95.5%	55.5%	-40.0%
Premium	Mumbai	971	877	-94	-9.7%	91.6%	29.5%	-62.1%
Premium	Dubai	1,149	748	-401	-34.9%	89.5%	9.7%	-79.8%
Premium	Riyadh	299	727	428	143.1%	96.3%	72.3%	-24.0%
Premium	Chennai	421	537	117	27.7%	94.1%	28.4%	-65.6%
Premium	Hyderabad	420	438	18	4.3%	97.7%	20.6%	-77.1%
Premium	Bahrain	515	373	-142	-27.5%	96.7%	58.5%	-38.2%
Premium	Doha	423	315	-108	-25.4%	80.2%	20.0%	-60.3%

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

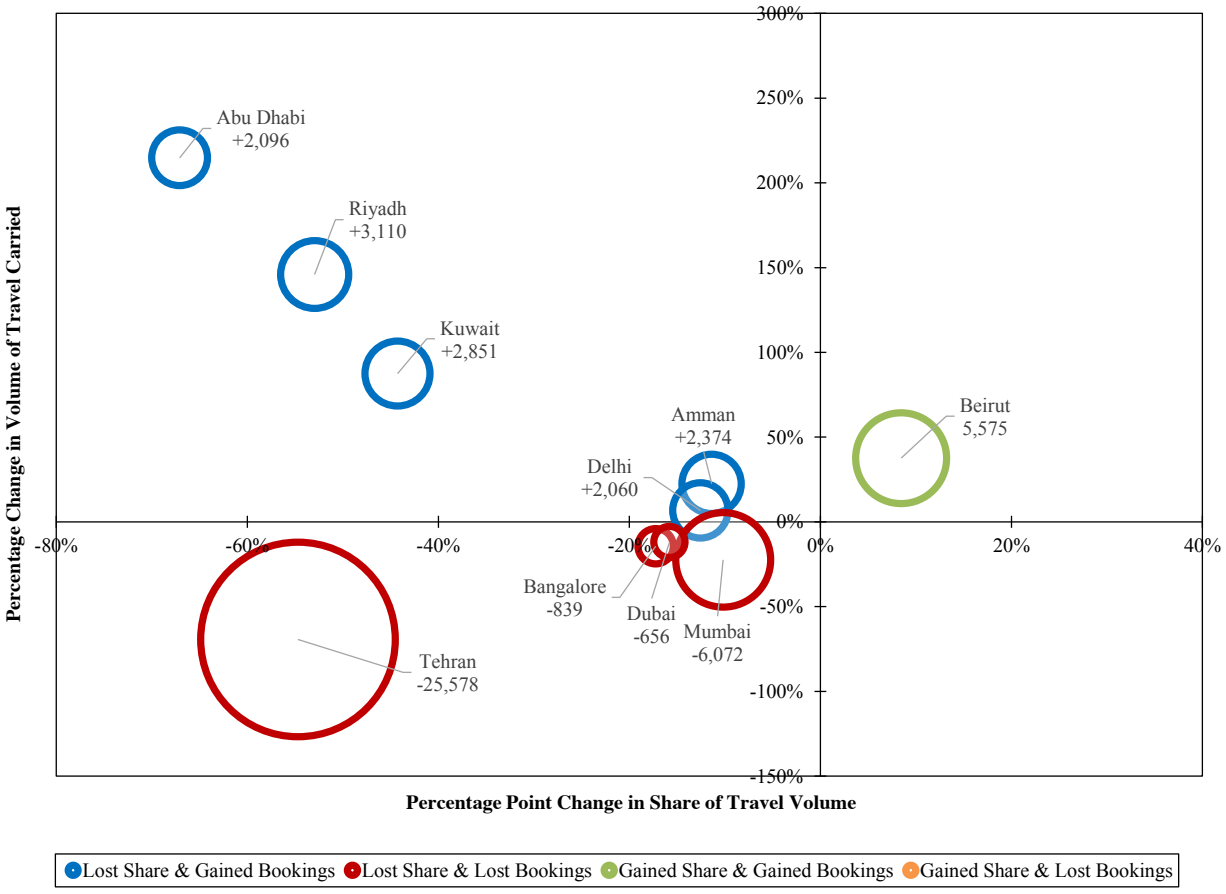
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional.

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B7
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN LOS ANGELES AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

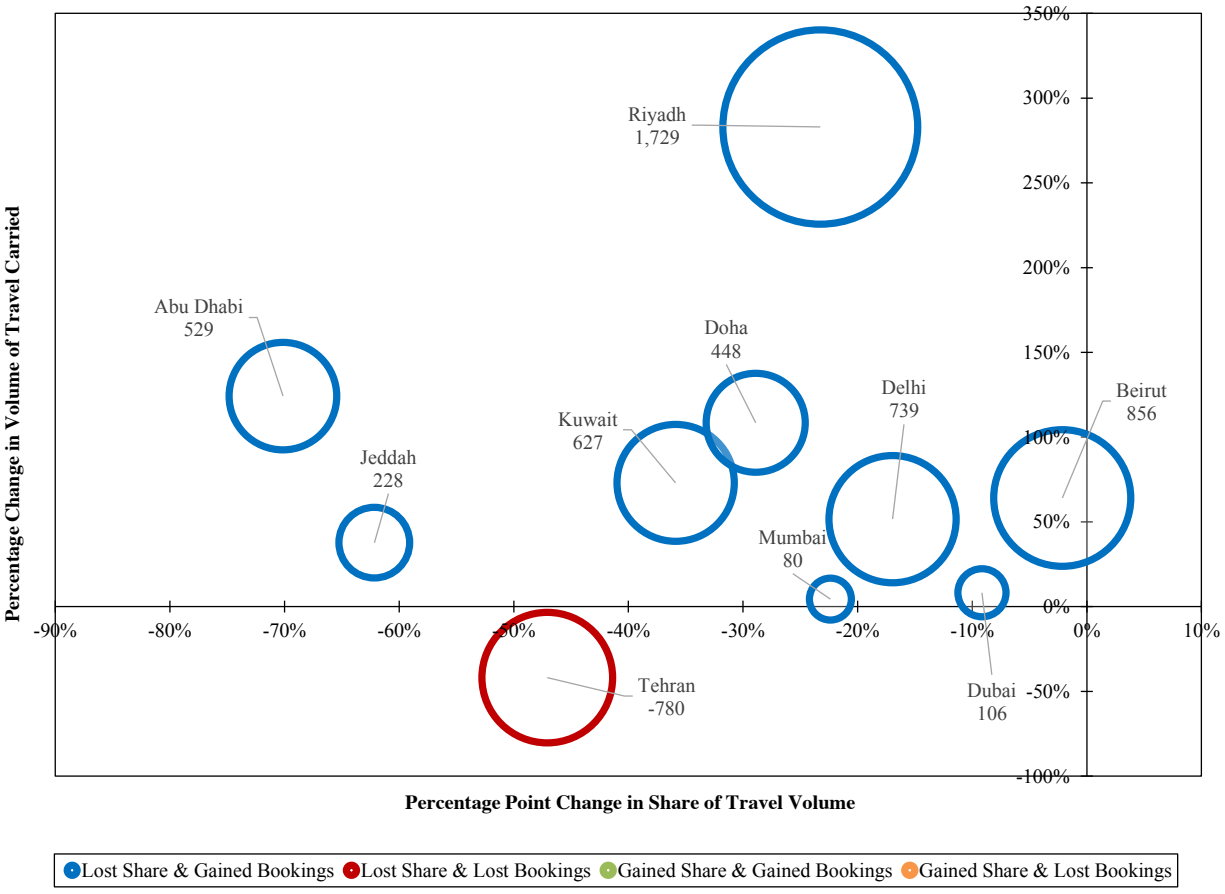
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B8
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN LOS ANGELES AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

TABLE B5
SUMMARY OF CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL BETWEEN LOS ANGELES AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
2009 – 2014

		Bookings				Share of Bookings		
				Difference				Percentage Point
Cabin	City	2009	2014	Count	Percent	2009	2014	Difference
[a]	[b]	[c]	[d]	[e] = [d]-[c]	[f] = [e]/[c]	[g]	[h]	[i] = [h]-[g]
Economy	Delhi	30,571	32,631	2,060	6.7%	54.9%	42.4%	-12.6%
Economy	Mumbai	27,068	20,996	-6,072	-22.4%	53.4%	43.2%	-10.2%
Economy	Beirut	14,834	20,408	5,575	37.6%	75.2%	83.7%	8.5%
Economy	Amman	10,581	12,955	2,374	22.4%	90.1%	78.7%	-11.4%
Economy	Tehran	36,865	11,287	-25,578	-69.4%	70.6%	15.9%	-54.7%
Economy	Kuwait	3,259	6,109	2,851	87.5%	85.6%	41.3%	-44.3%
Economy	Riyadh	2,131	5,241	3,110	145.9%	73.6%	20.7%	-53.0%
Economy	Bangalore	5,821	4,982	-839	-14.4%	41.7%	24.4%	-17.2%
Economy	Dubai	5,495	4,839	-656	-11.9%	23.8%	8.0%	-15.8%
Economy	Abu Dhabi	976	3,071	2,096	214.8%	87.6%	20.5%	-67.1%
Premium	Riyadh	611	2,340	1,729	283.0%	52.2%	28.9%	-23.3%
Premium	Beirut	1,336	2,192	856	64.1%	95.7%	93.6%	-2.1%
Premium	Delhi	1,432	2,170	739	51.6%	50.0%	33.0%	-16.9%
Premium	Mumbai	1,805	1,885	80	4.4%	50.8%	28.5%	-22.4%
Premium	Kuwait	859	1,485	627	73.0%	72.0%	36.1%	-35.9%
Premium	Dubai	1,298	1,403	106	8.1%	16.1%	7.0%	-9.2%
Premium	Tehran	1,860	1,080	-780	-41.9%	75.3%	28.3%	-47.1%
Premium	Abu Dhabi	426	955	529	124.2%	84.4%	14.3%	-70.1%
Premium	Doha	413	860	448	108.5%	50.5%	21.6%	-28.9%
Premium	Jeddah	605	833	228	37.7%	84.4%	22.2%	-62.2%

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

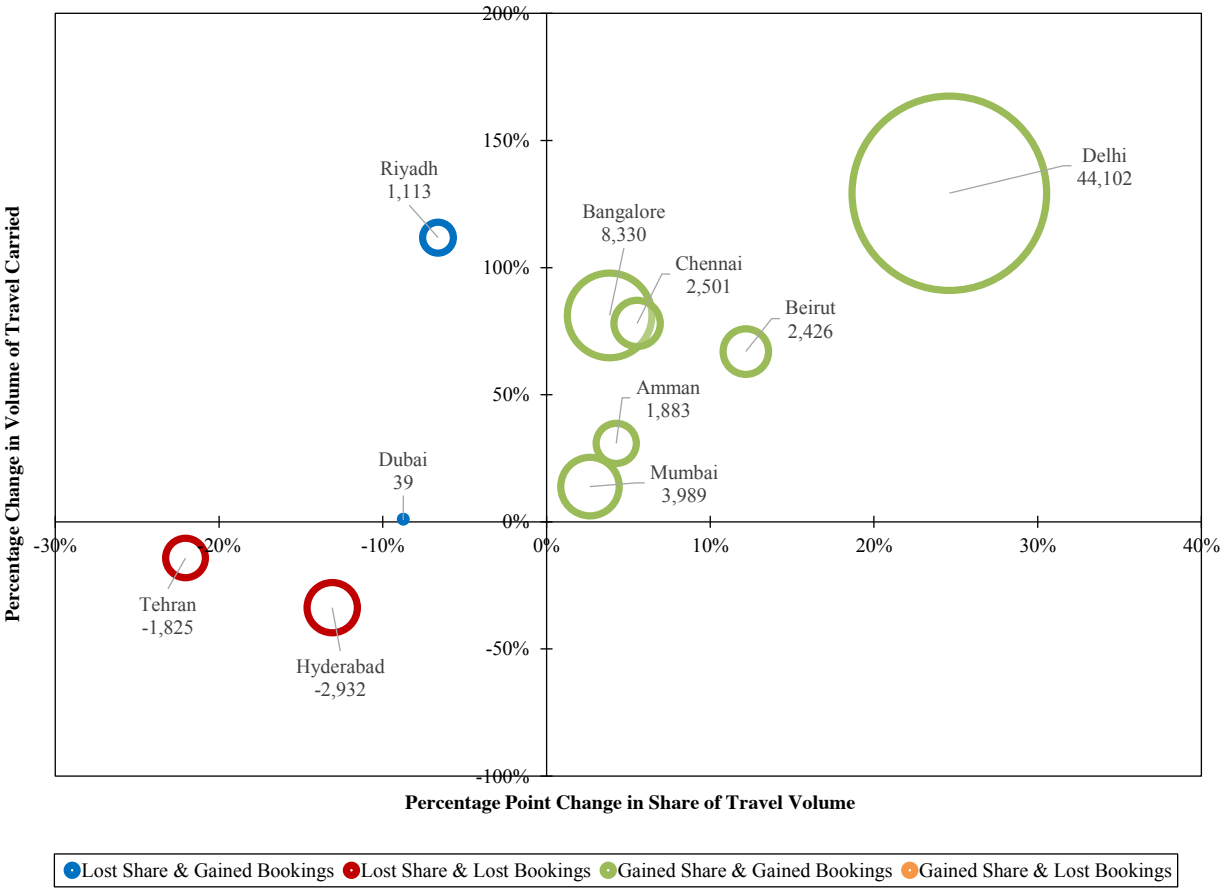
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional.

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B9
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN SAN FRANCISCO AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

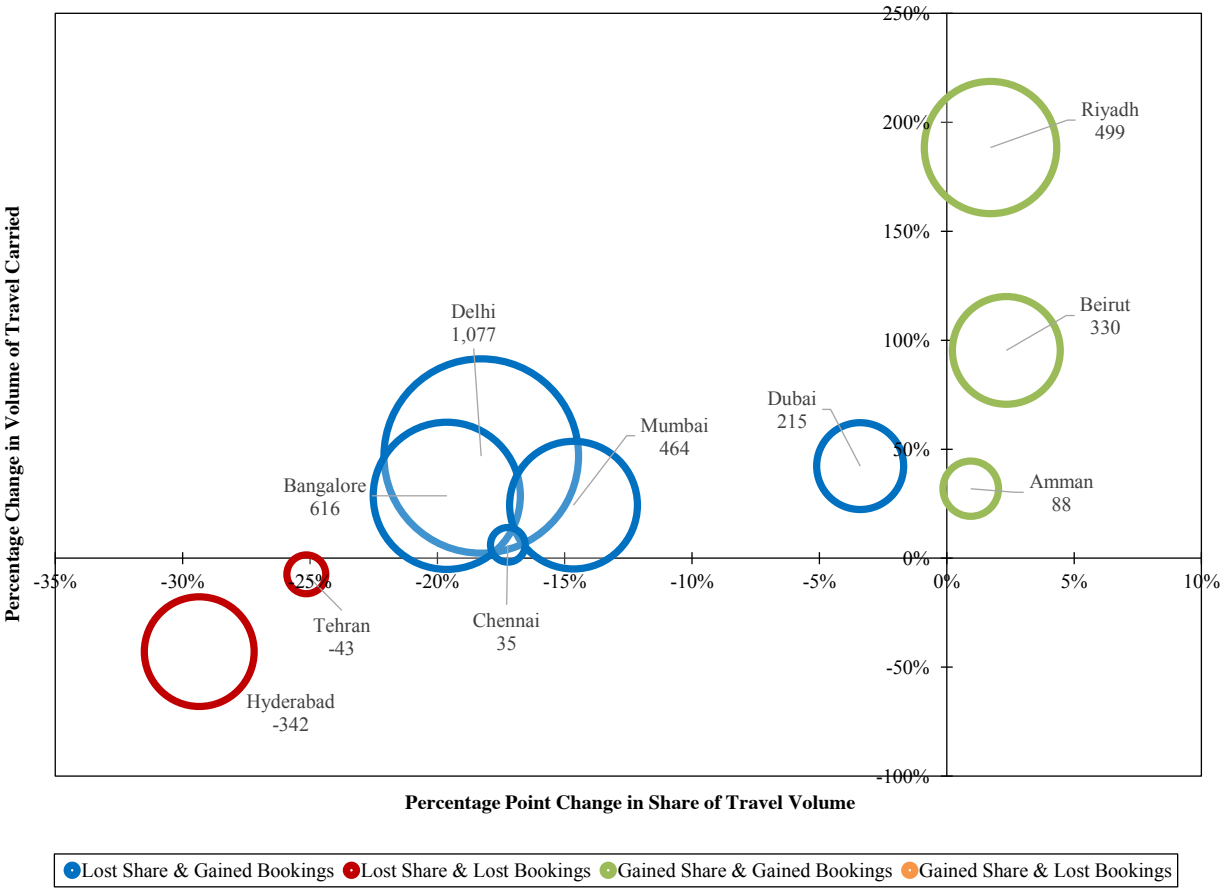
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B10
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN SAN FRANCISCO AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

TABLE B6
SUMMARY OF CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL BETWEEN SAN FRANCISCO AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
2009 – 2014

		Bookings				Share of Bookings		
				Difference				Percentage Point
Cabin	City	2009	2014	Count	Percent	2009	2014	Difference
[a]	[b]	[c]	[d]	[e] = [d]-[c]	[f] = [e]/[c]	[g]	[h]	[i] = [h]-[g]
Economy	Delhi	34,118	78,220	44,102	129.3%	32.7%	57.3%	24.6%
Economy	Mumbai	28,757	32,745	3,989	13.9%	46.3%	49.0%	2.7%
Economy	Bangalore	10,259	18,589	8,330	81.2%	24.1%	27.9%	3.9%
Economy	Tehran	12,813	10,988	-1,825	-14.2%	69.1%	47.1%	-22.1%
Economy	Amman	6,100	7,982	1,883	30.9%	91.6%	95.9%	4.3%
Economy	Beirut	3,621	6,046	2,426	67.0%	85.3%	97.5%	12.2%
Economy	Hyderabad	8,683	5,751	-2,932	-33.8%	25.7%	12.6%	-13.1%
Economy	Chennai	3,203	5,703	2,501	78.1%	8.6%	14.2%	5.5%
Economy	Dubai	3,647	3,686	39	1.1%	17.0%	8.3%	-8.7%
Economy	Riyadh	996	2,109	1,113	111.7%	73.6%	66.9%	-6.6%
Premium	Delhi	2,297	3,373	1,077	46.9%	58.9%	40.6%	-18.3%
Premium	Bangalore	2,151	2,766	616	28.6%	53.2%	33.6%	-19.6%
Premium	Mumbai	1,910	2,374	464	24.3%	49.8%	35.2%	-14.7%
Premium	Riyadh	265	763	499	188.5%	69.8%	71.5%	1.7%
Premium	Dubai	509	724	215	42.2%	11.2%	7.8%	-3.4%
Premium	Beirut	346	676	330	95.4%	96.8%	99.1%	2.3%
Premium	Chennai	565	599	35	6.1%	36.9%	19.7%	-17.2%
Premium	Tehran	582	539	-43	-7.4%	75.1%	50.0%	-25.1%
Premium	Hyderabad	797	455	-342	-42.9%	47.2%	17.8%	-29.4%
Premium	Amman	275	362	88	31.9%	92.1%	93.1%	0.9%

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

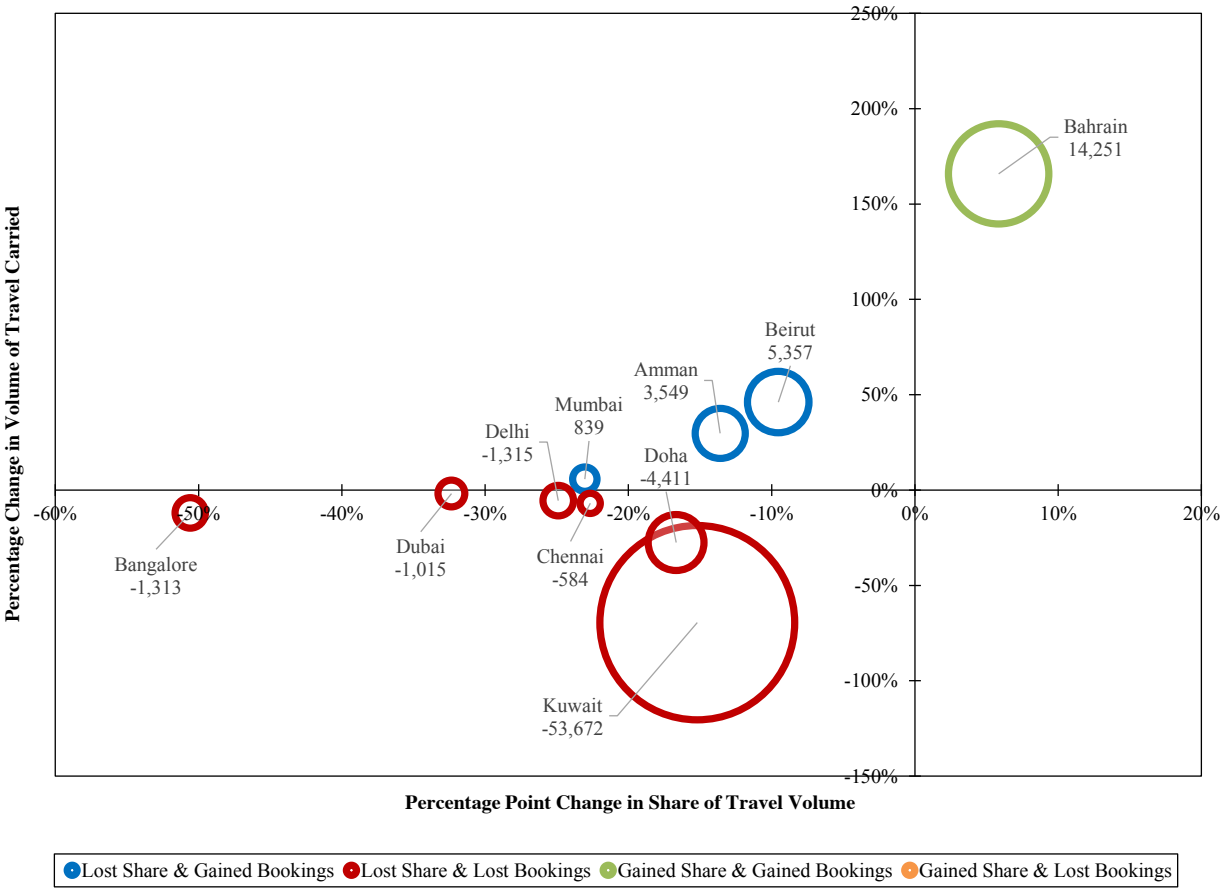
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional.

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B11
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN WASHINGTON D.C. AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
ECONOMY CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

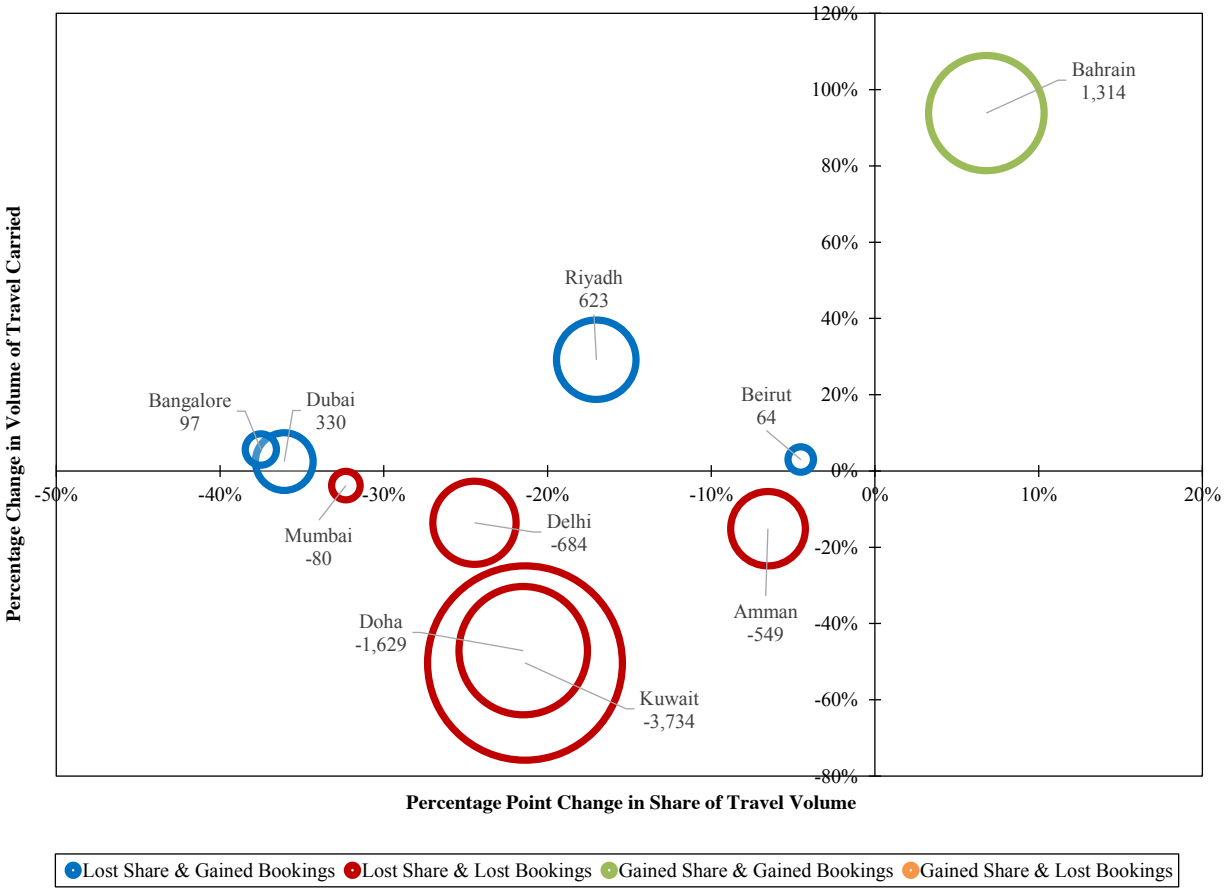
[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

FIGURE B12
CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL
BETWEEN WASHINGTON D.C. AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
PREMIUM CLASS
2009 – 2014



Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

[3] Traffic flows are non-directional. The value under each destination represents the differences in annual traffic volumes between 2009 and 2014 (negative values indicate a decline in volume).

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

TABLE B7
SUMMARY OF CHANGES IN IMMUNIZED CARRIERS' SHARE AND VOLUME OF TRAVEL BETWEEN WASHINGTON D.C. AND KEY INDIAN SUB-CONTINENT/MIDDLE EASTERN DESTINATIONS
2009 – 2014

		Bookings				Share of Bookings		
				Difference				Percentage Point
Cabin	City	2009	2014	Count	Percent	2009	2014	Difference
[a]	[b]	[c]	[d]	[e] = [d]-[c]	[f] = [e]/[c]	[g]	[h]	[i] = [h]-[g]
Economy	Dubai	55,033	54,018	-1,015	-1.8%	91.6%	59.3%	-32.4%
Economy	Kuwait	77,172	23,500	-53,672	-69.5%	95.8%	80.6%	-15.2%
Economy	Bahrain	8,593	22,844	14,251	165.8%	87.8%	93.7%	5.8%
Economy	Delhi	23,869	22,554	-1,315	-5.5%	69.2%	44.3%	-24.9%
Economy	Beirut	11,609	16,965	5,357	46.1%	98.4%	88.9%	-9.5%
Economy	Amman	11,932	15,481	3,549	29.7%	99.6%	86.0%	-13.6%
Economy	Mumbai	14,581	15,420	839	5.8%	65.2%	42.1%	-23.0%
Economy	Doha	16,033	11,622	-4,411	-27.5%	54.8%	38.1%	-16.7%
Economy	Bangalore	10,925	9,612	-1,313	-12.0%	94.8%	44.2%	-50.6%
Economy	Chennai	8,383	7,799	-584	-7.0%	51.0%	28.4%	-22.7%
Premium	Dubai	13,395	13,725	330	2.5%	92.0%	55.9%	-36.1%
Premium	Delhi	5,026	4,342	-684	-13.6%	83.0%	58.5%	-24.5%
Premium	Kuwait	7,417	3,683	-3,734	-50.3%	97.4%	76.0%	-21.4%
Premium	Amman	3,628	3,079	-549	-15.1%	99.8%	93.2%	-6.5%
Premium	Riyadh	2,136	2,759	623	29.2%	45.5%	28.5%	-17.0%
Premium	Bahrain	1,400	2,713	1,314	93.9%	73.8%	80.6%	6.8%
Premium	Beirut	2,111	2,174	64	3.0%	99.7%	95.2%	-4.5%
Premium	Mumbai	2,073	1,993	-80	-3.8%	80.4%	48.1%	-32.3%
Premium	Doha	3,457	1,828	-1,629	-47.1%	44.4%	22.9%	-21.5%
Premium	Bangalore	1,723	1,820	97	5.6%	98.0%	60.4%	-37.5%

Notes:

[1] Immunized alliances are defined in accordance with the U.S. Department of Transportation Compendium of Antitrust Immunity Cases.

[2] This analysis compares travel volumes between March 2014 and February 2015 to the travel volumes between March 2009 and February 2010.

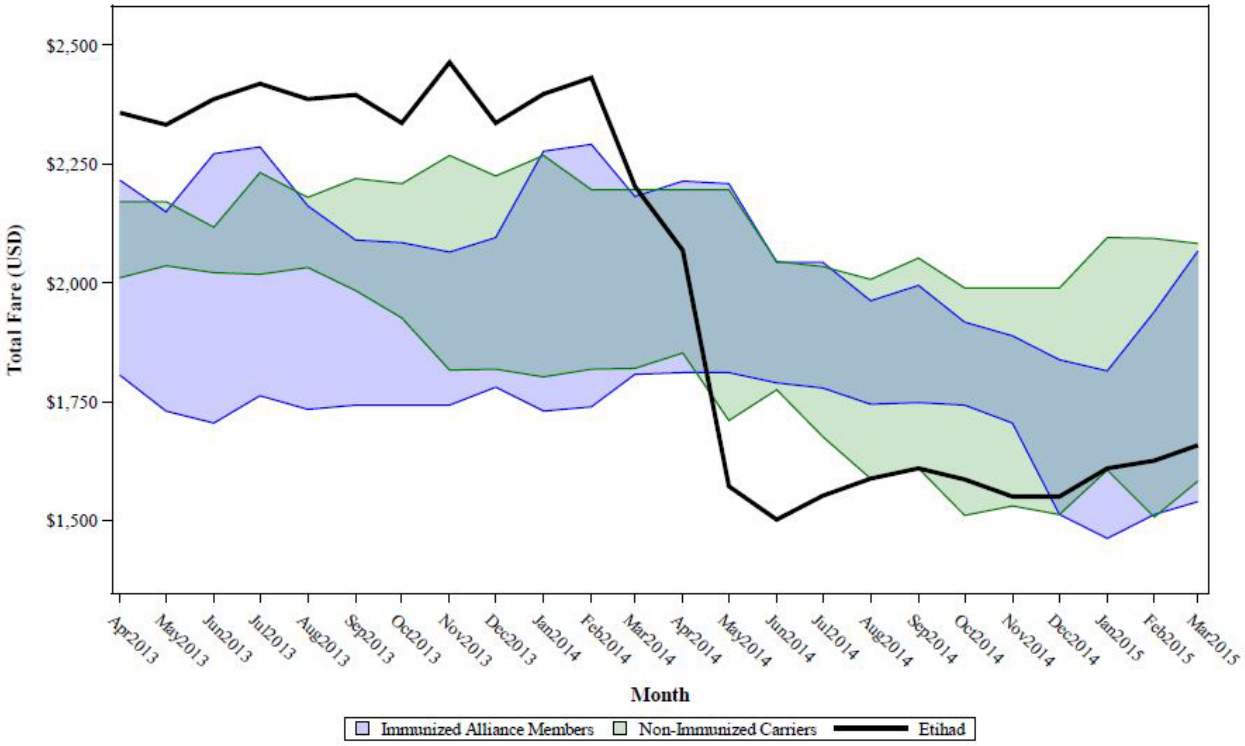
[3] Traffic flows are non-directional.

Sources:

MIDT; U.S. Department of Transportation Compendium of Antitrust Immunity Cases Pursuant to 49 U.S.C §§ 41308-42309 (July 2014).

APPENDIX C

FIGURE C1
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON CHICAGO TO HYDERABAD ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by American, British Airways, and Lufthansa. Etihad's fare was on average $17 (or 1%) less than the median offered by these carriers.

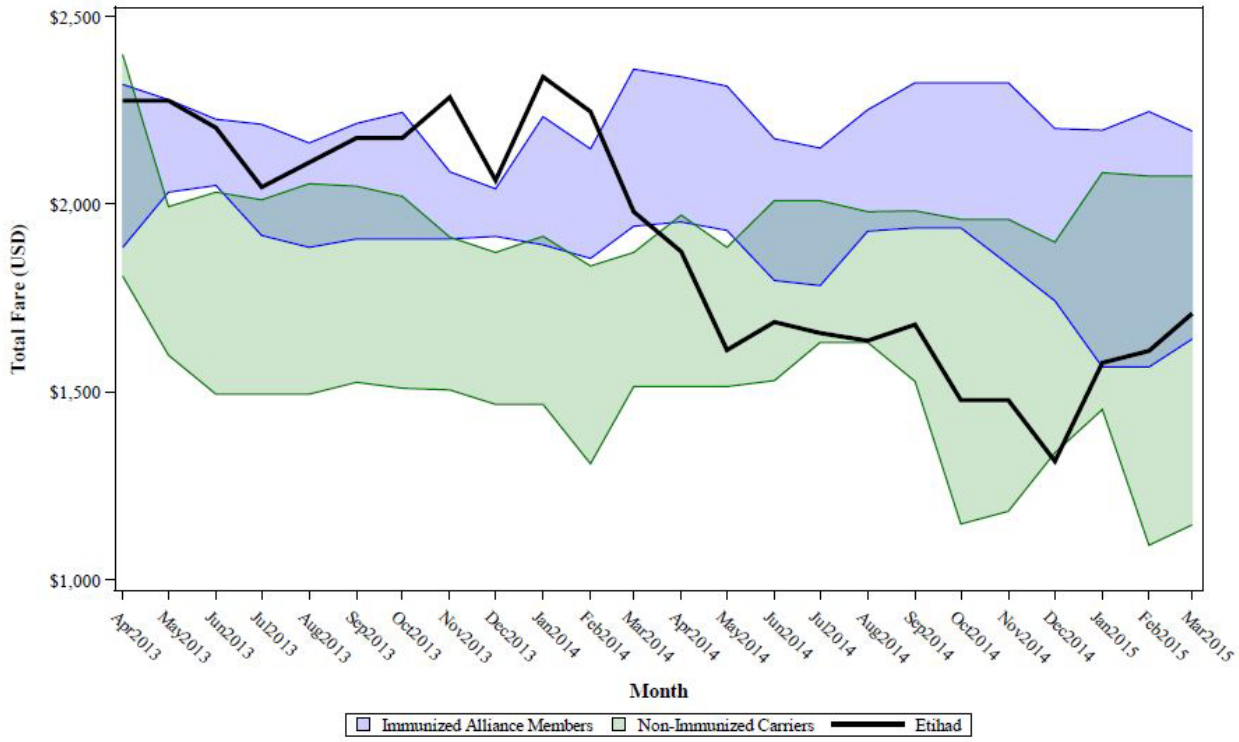
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates, Qatar Airways, and Air India. Etihad's fare was on average $31 (or 2%) less than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C2
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON NEW YORK CITY TO MUMBAI ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by Delta, American, United, British Airways and Lufthansa. Etihad's fare was on average $136 (or 7%) less than the median offered by these carriers.

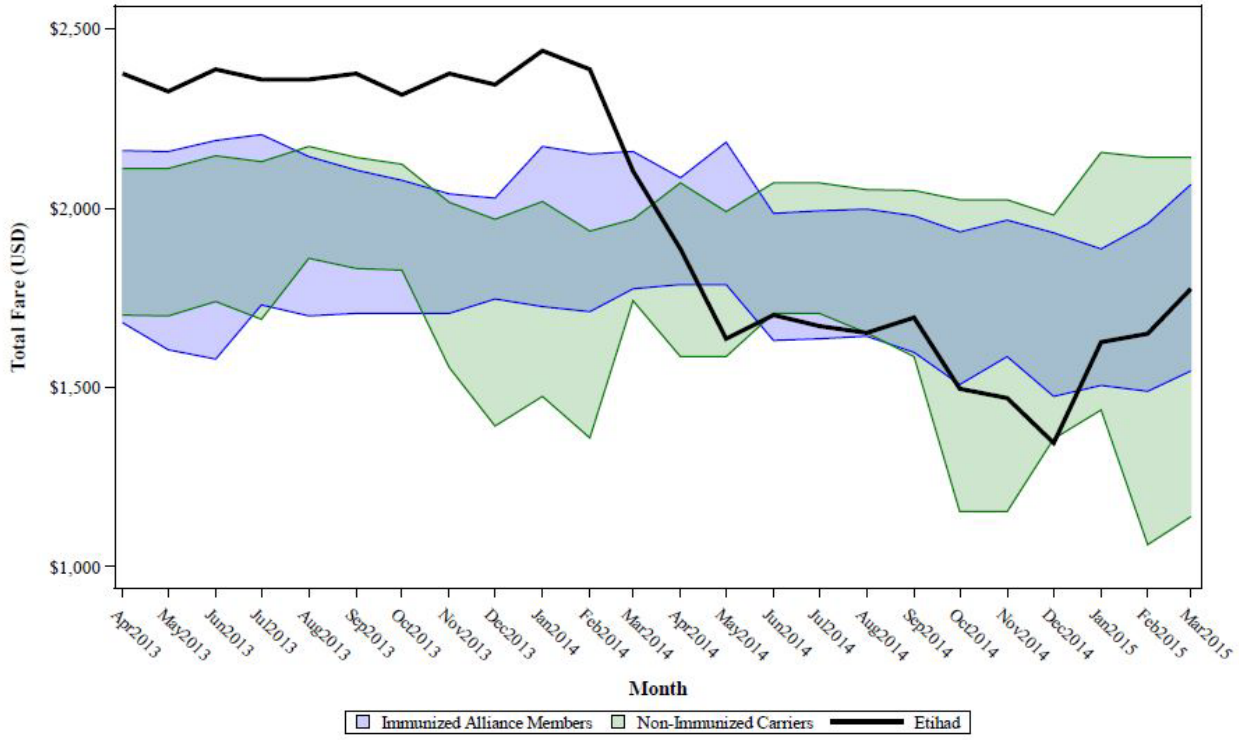
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates, Qatar Airways, Air India, and Turkish Airways. Etihad's fare was on average $189 (or 11%) more than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C3
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON NEW YORK CITY TO HYDERABAD ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by American, United, British Airways, and Lufthansa. Etihad's fare was on average $99 (or 5%) more than the median offered by these carriers.

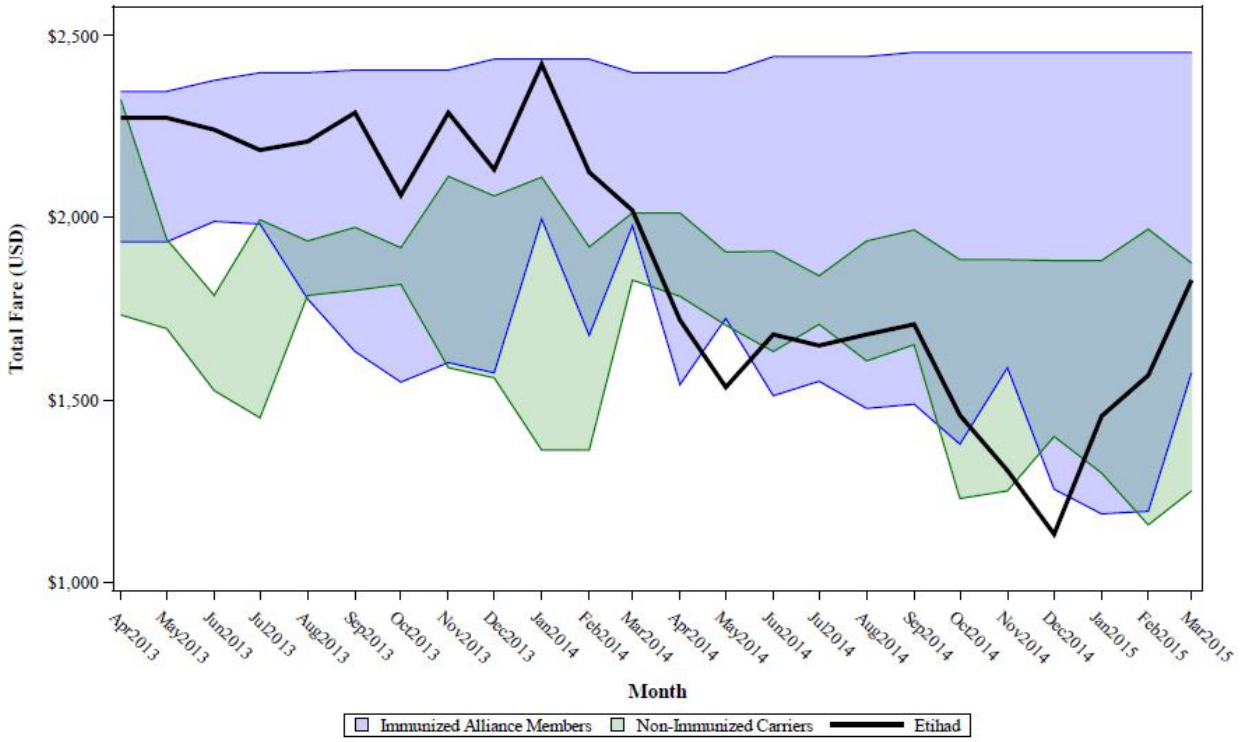
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates, Qatar Airways, and Air India. Etihad's fare was on average $140 (or 7%) more than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C4
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON NEW YORK CITY TO ISLAMABAD ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by American and United. Etihad's fare was on average $139 (or 7%) less than the median offered by these carriers.

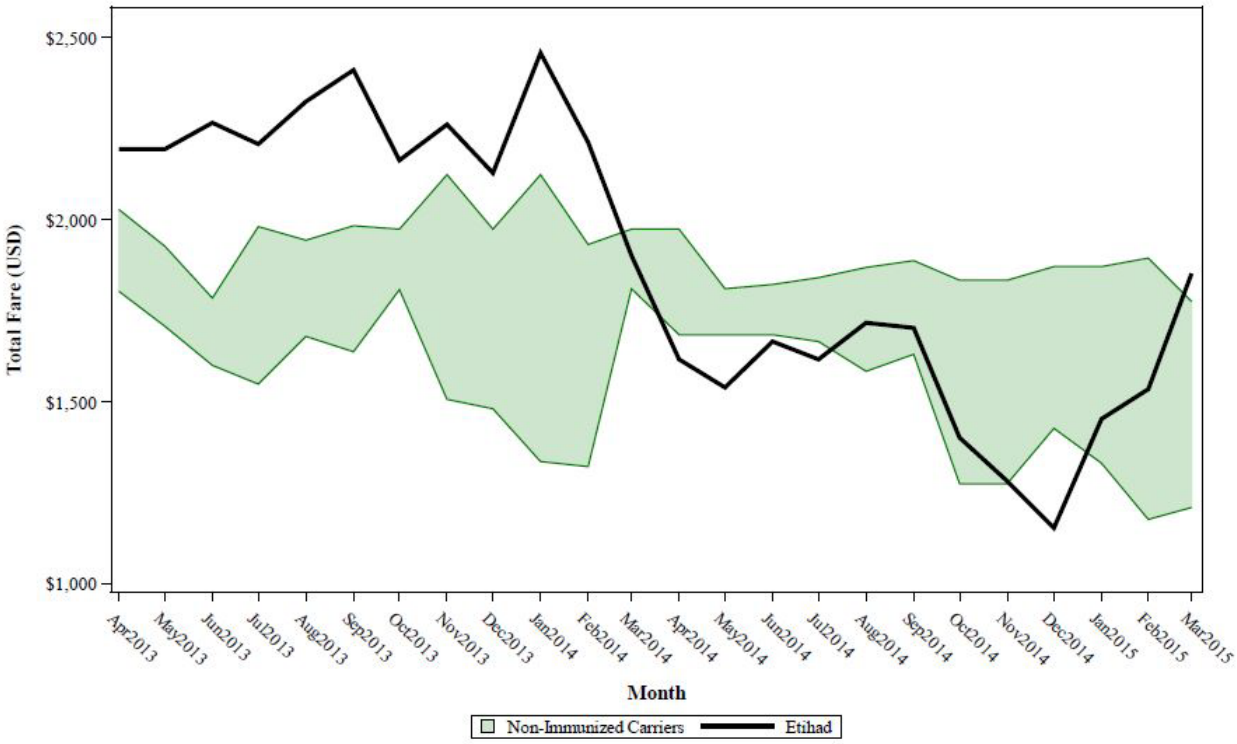
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates, Qatar Airways, and Turkish Airways. Etihad's fare was on average $52 (or 3%) more than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C5
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON NEW YORK CITY TO DHAKA ROUTE
APRIL 2013 – MARCH 2015



Notes:

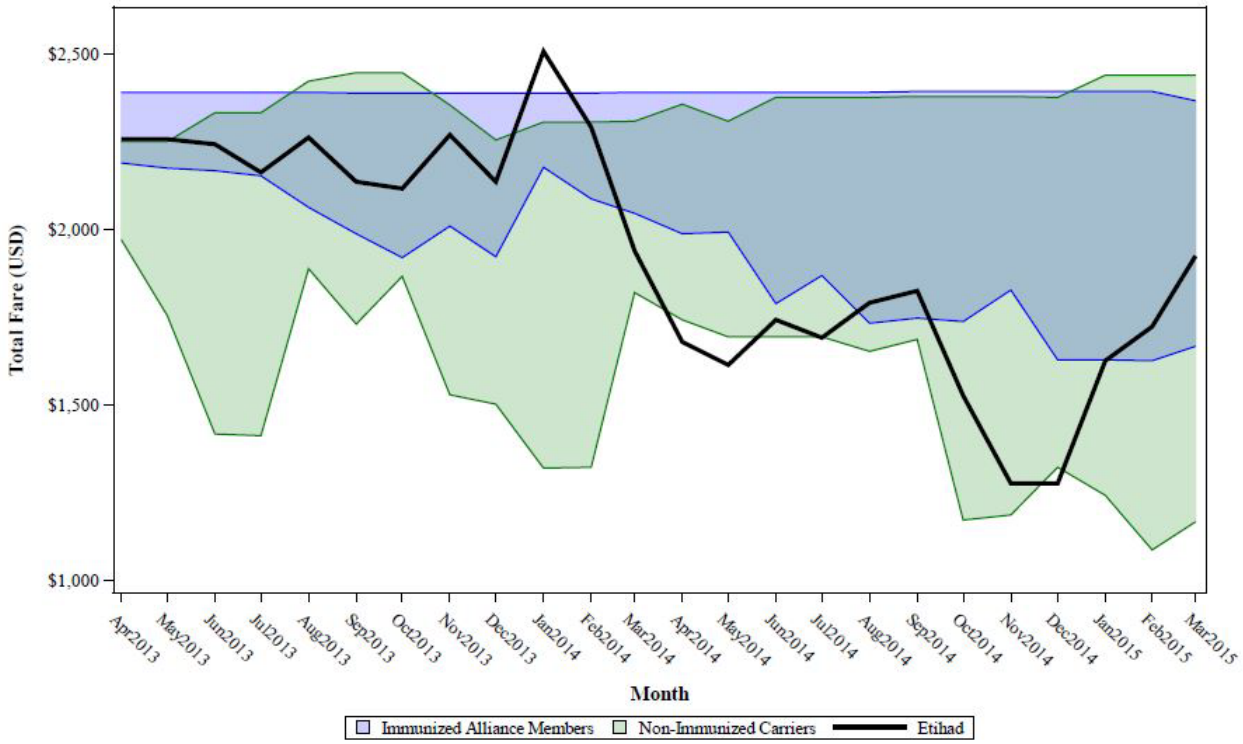
[1] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates, Qatar Airways and Turkish Airways. Etihad's fare was on average $100 (or 5%) more than the median offered by these carriers.

[2] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C6
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON NEW YORK CITY TO COLOMBO
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by American and United. Etihad's fare was on average $228 (or 11%) less than the median offered by these carriers.

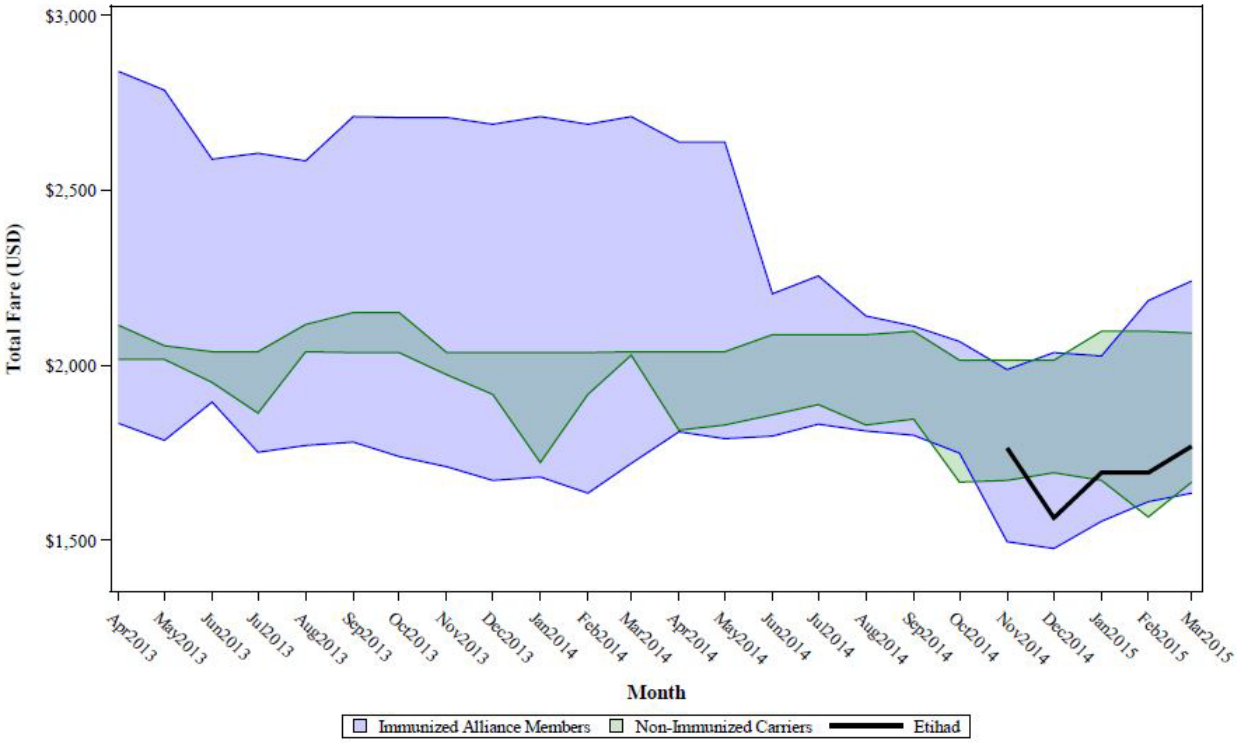
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Air India, Emirates, and Qatar Airways. Etihad's fare was on average $4 (or 0%) more than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C7
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON SAN FRANCISCO TO DELHI ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by Delta, American, United, British Airways, KLM, and Lufthansa. Etihad's fare was on average $82 (or 5%) less than the median offered by these carriers.

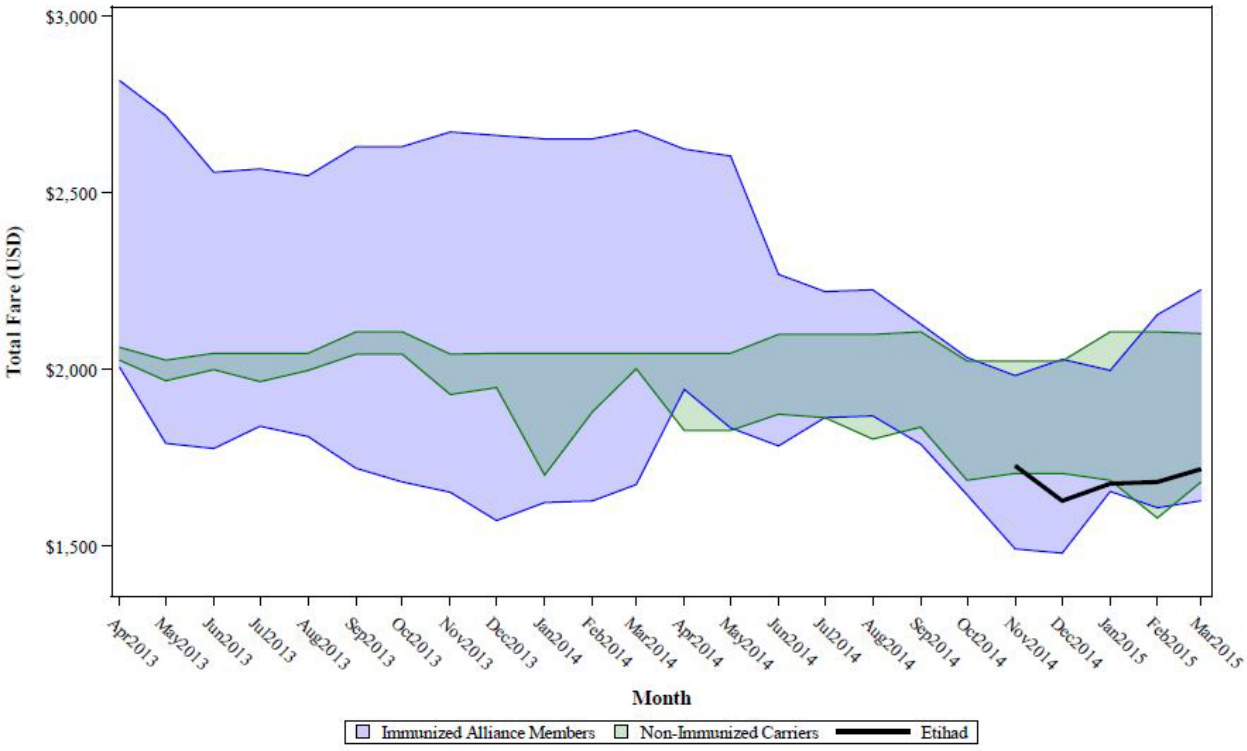
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates and Air India. Etihad's fare was on average $161 (or 9%) less than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C8
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON SAN FRANCISCO TO MUMBAI ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by Delta, United, British Airways, KLM, and Lufthansa. Etihad's fare was on average $154 (or 8%) less than the median offered by these carriers.

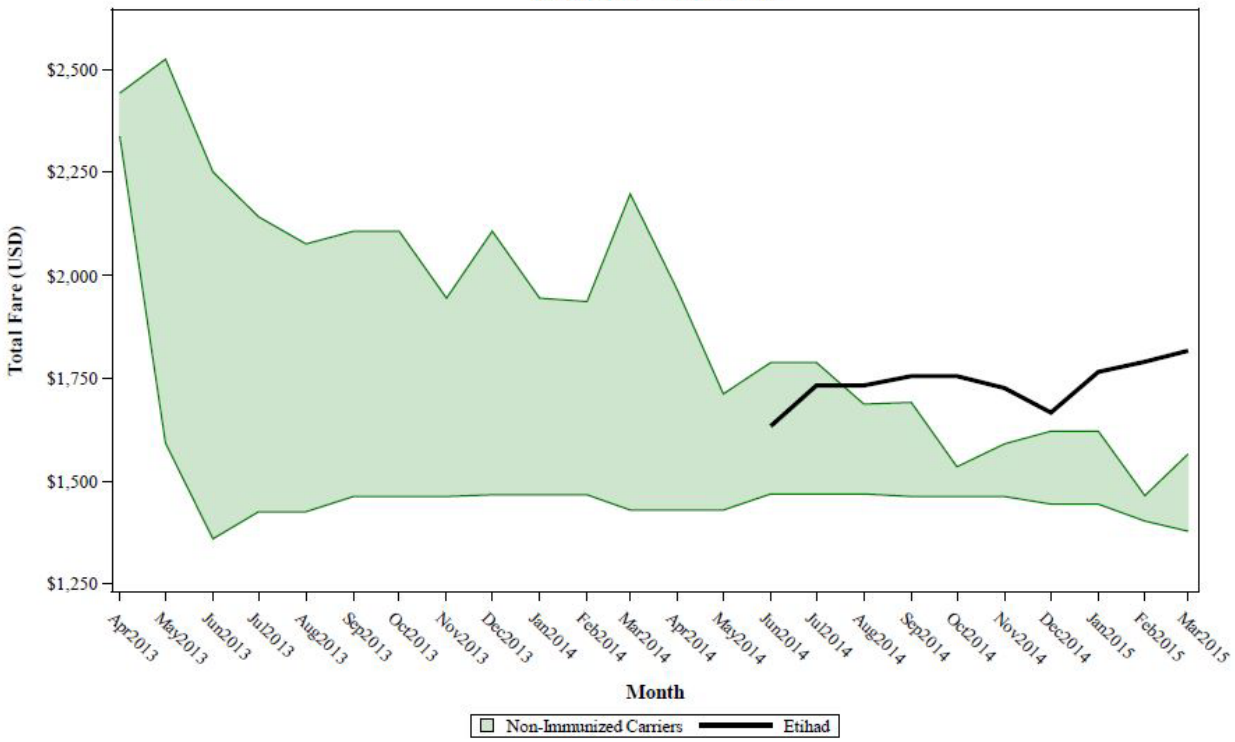
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates and Air India. Etihad's fare was on average $186 (or 10%) less than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C9
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON LOS ANGELES TO COLOMBO
APRIL 2013 – MARCH 2015



Notes:

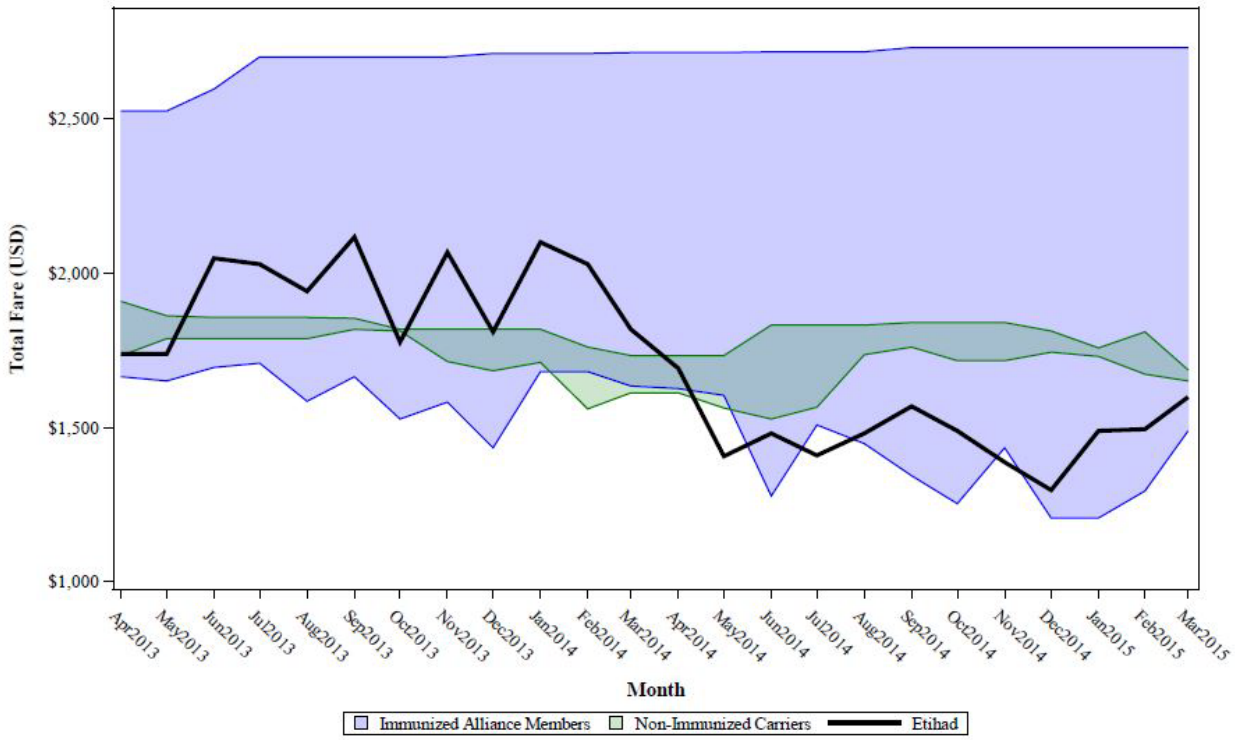
[1] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates and Turkish Airways. Etihad's fare was on average $197 (or 13%) higher than the median offered by these carriers.

[2] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C10
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON WASHINGTON D.C TO ISLAMABAD ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by American and United. Etihad's fare was on average $393 (or 19%) less than the median offered by these carriers.

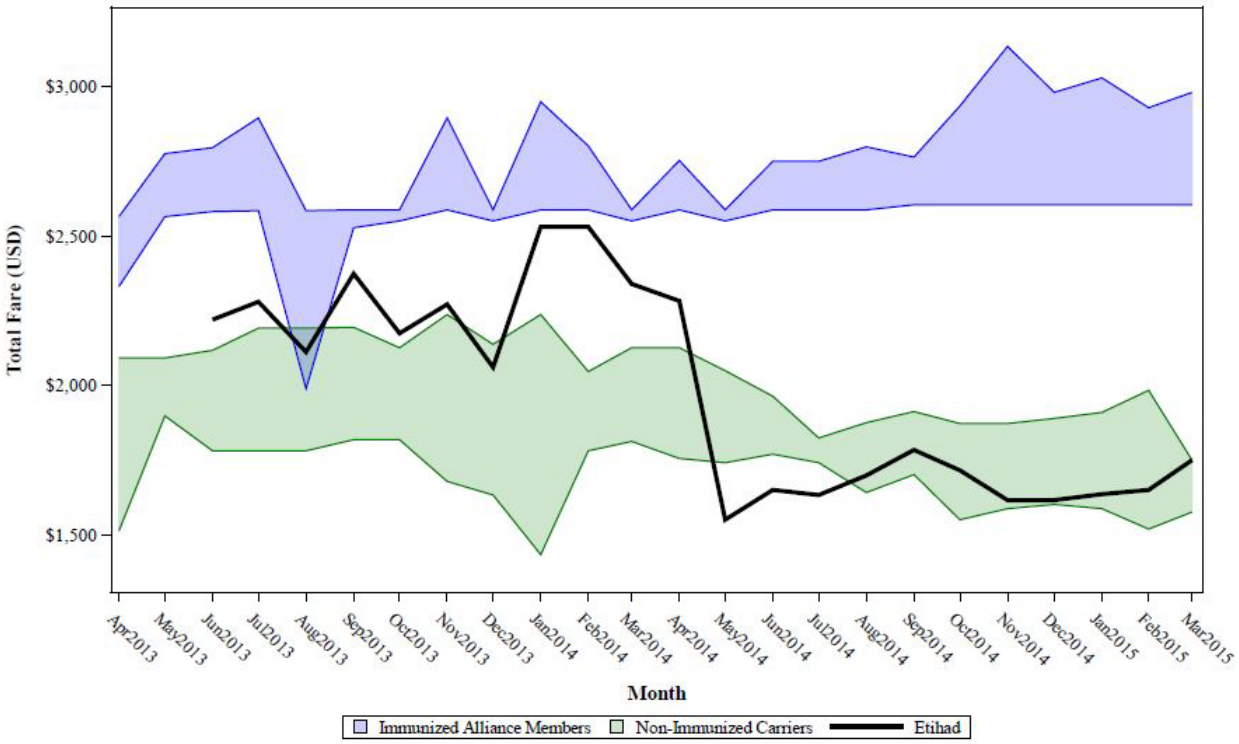
[2] Non-Immunized Carriers in this chart indicated the range of fares published by Qatar Airways and Turkish Airways. Etihad's fare was on average $47 (or 3%) less than the median offered by these carriers.

[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

FIGURE C11
ANALYSIS OF MEDIAN PUBLISHED ECONOMY CLASS FARES
ON WASHINGTON D.C. TO DHAKA ROUTE
APRIL 2013 – MARCH 2015



Notes:

[1] Immunized Alliance Members in this chart indicates the range of fares published by American and United. Etihad's fare was on average $704 (or 26%) less than the median offered by these carriers.

[2] Non-Immunized Carriers in this chart indicated the range of fares published by Emirates, Qatar Airways, and Turkish Airways. Etihad's fare was on average $159 (or 9%) more than the median offered by these carriers.

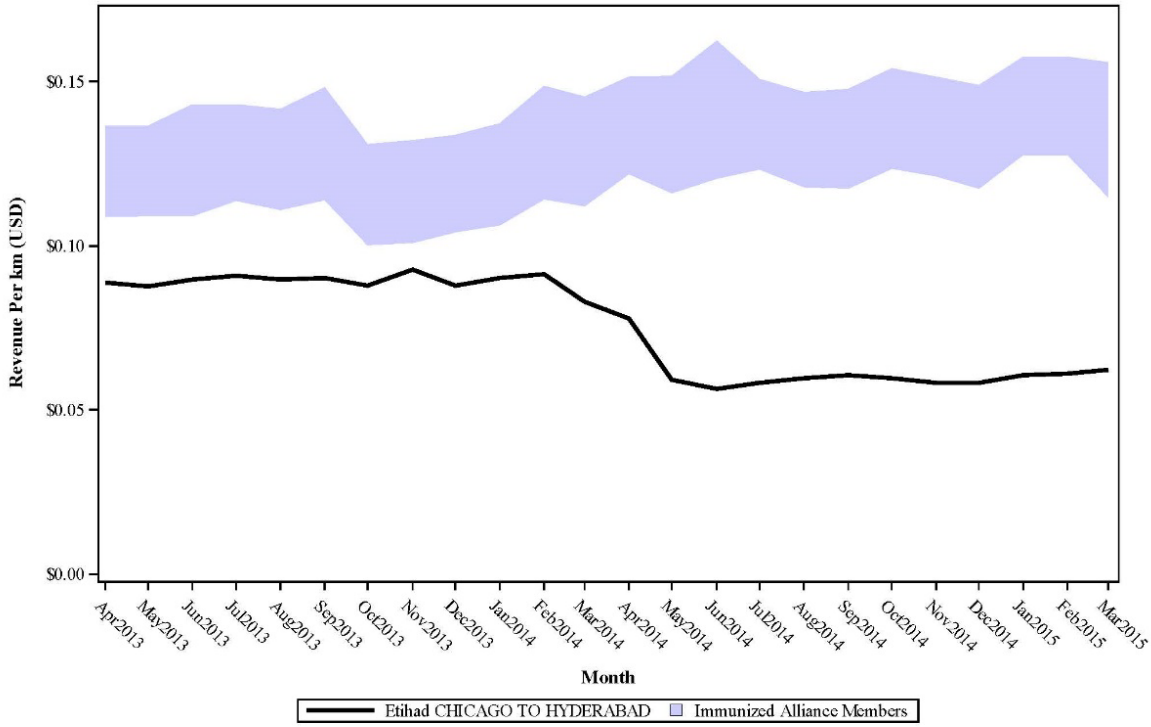
[3] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. Premium Economy fares are not included in the analysis.

Sources:

ATPCO and GDS pricing data; Canadian Foreign Exchange Services.

APPENDIX D

FIGURE D1
ETIHAD REVENUE PER KILOMETER ON CHICAGO TO HYDERABAD ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM CHICAGO TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, KLM, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: CHI-FRA, CHI-LON, CHI-PAR.

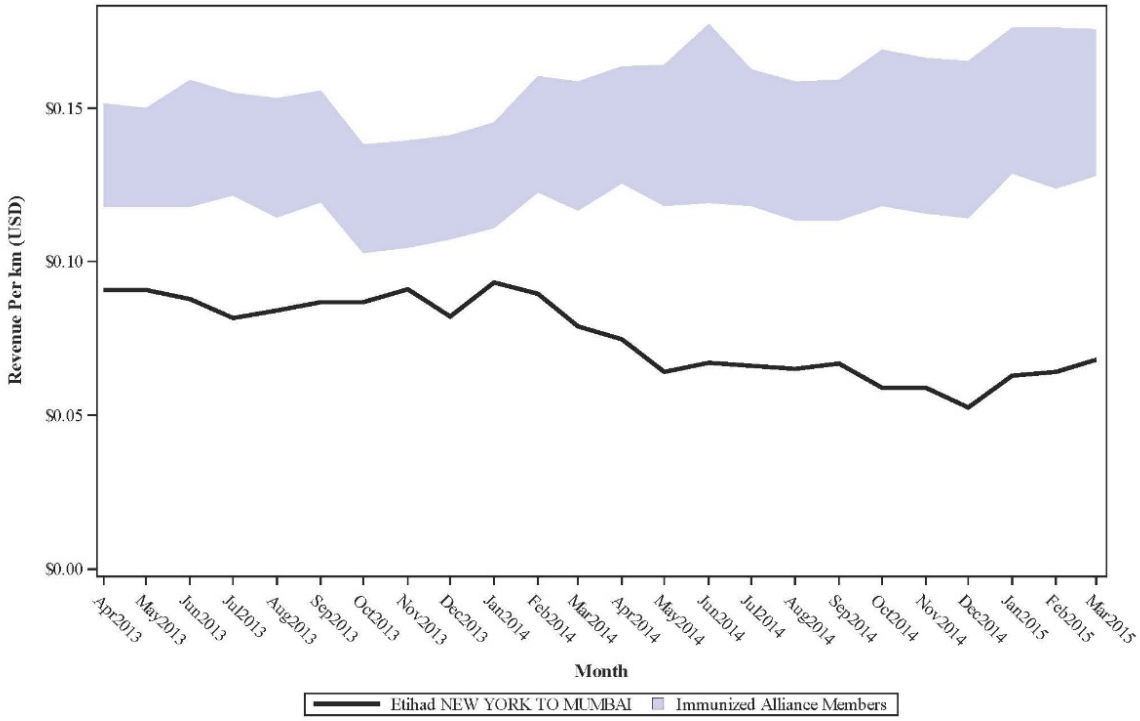
[3] There are 7 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 80% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D2
ETIHAD REVENUE PER KILOMETER ON NEW YORK TO MUMBAI ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM NEW YORK TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, KLM, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: NYC-FRA, NYC-LON, NYC-PAR.

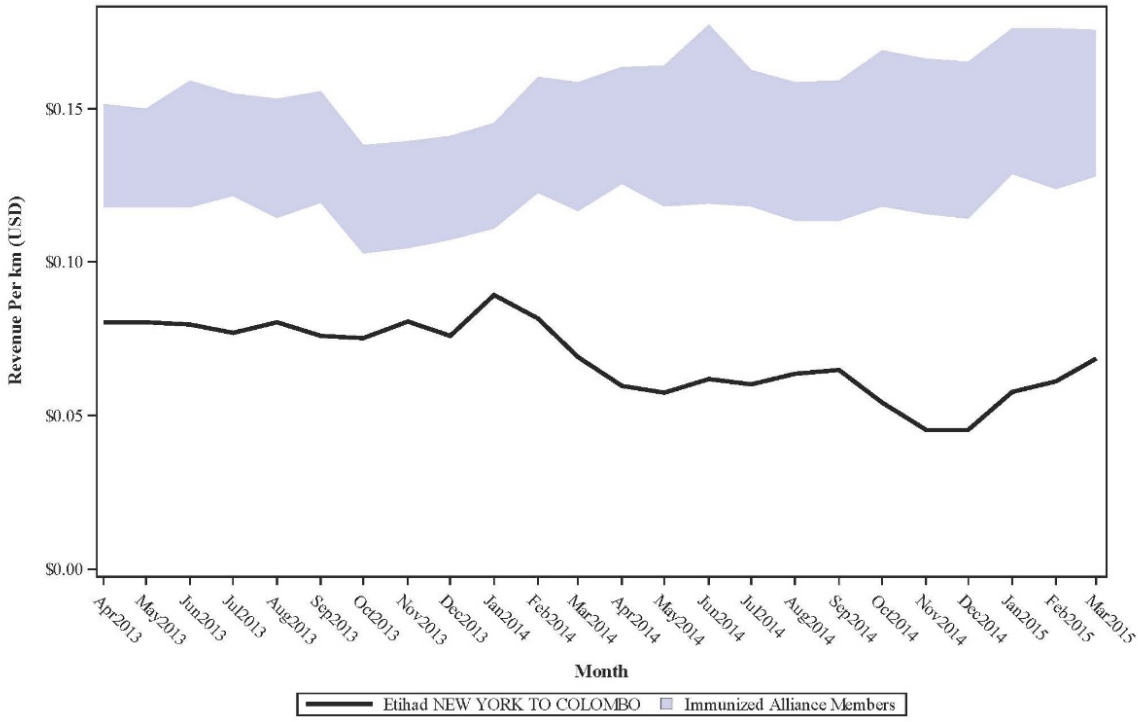
[3] There are 7 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 88% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D3
ETIHAD REVENUE PER KILOMETER ON NEW YORK TO COLOMBO ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM NEW YORK TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, KLM, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: NYC-FRA, NYC-LON, NYC-PAR.

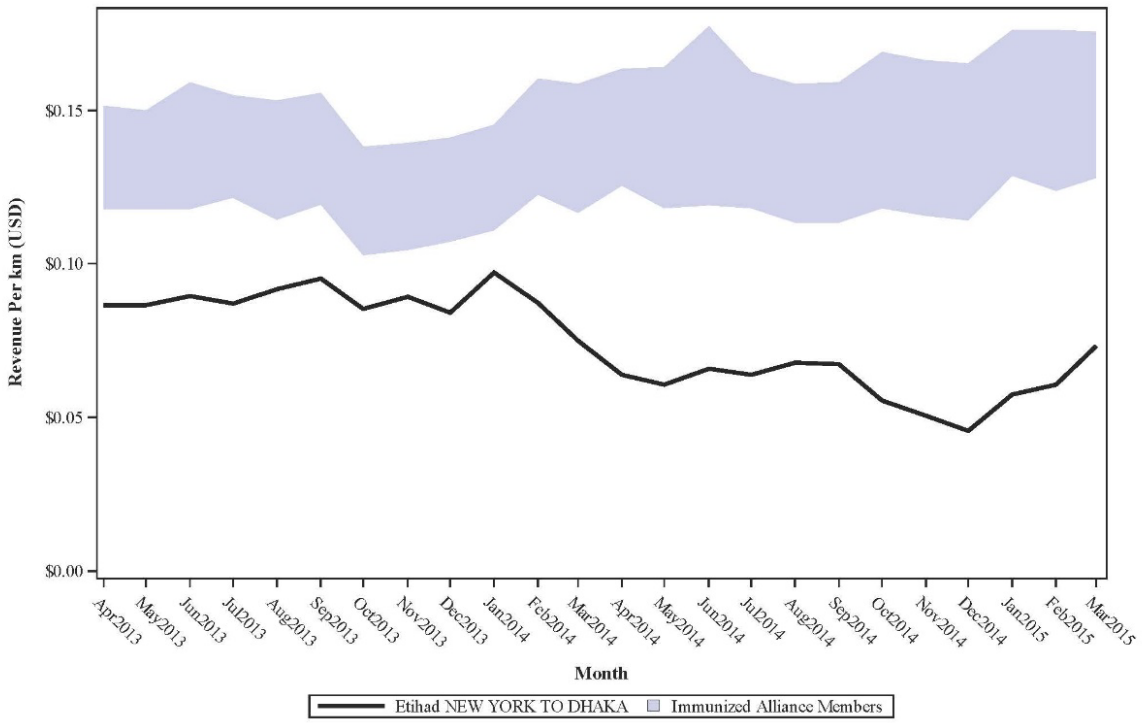
[3] There are 7 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 108% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D4
ETIHAD REVENUE PER KILOMETER ON NEW YORK TO DHAKA ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM NEW YORK TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, KLM, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: NYC-FRA, NYC-LON, NYC-PAR.

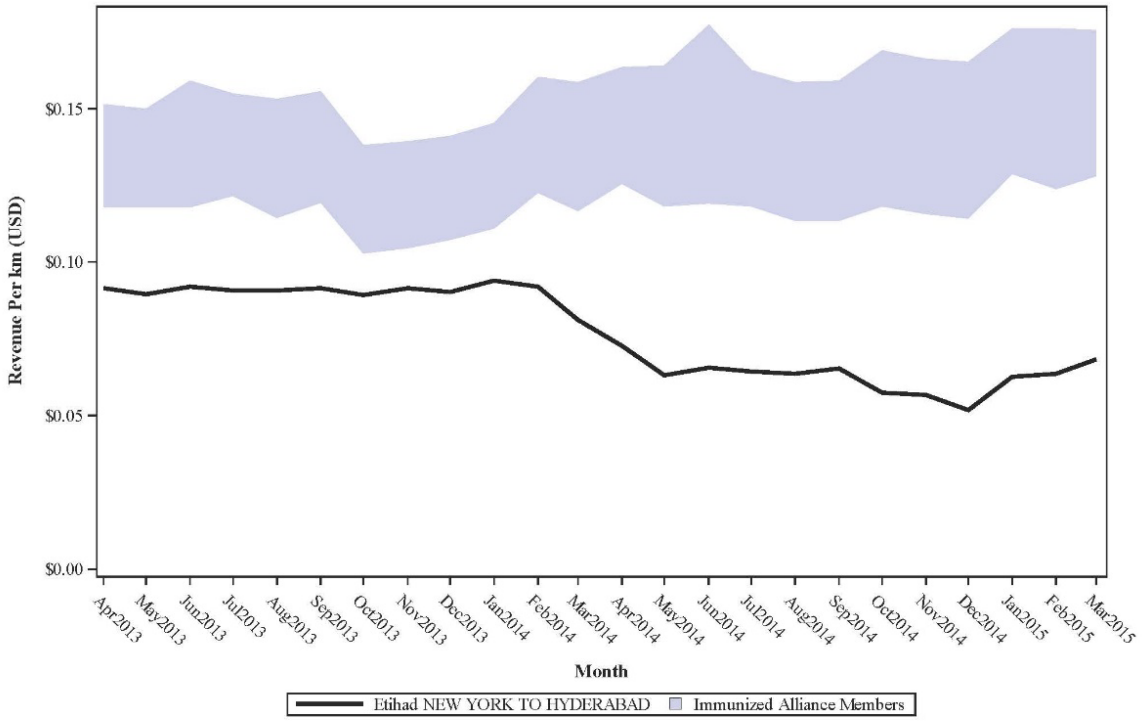
[3] There are 7 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 94% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D5
ETIHAD REVENUE PER KILOMETER ON NEW YORK TO HYDERABAD ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM NEW YORK TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, KLM, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: NYC-FRA, NYC-LON, NYC-PAR.

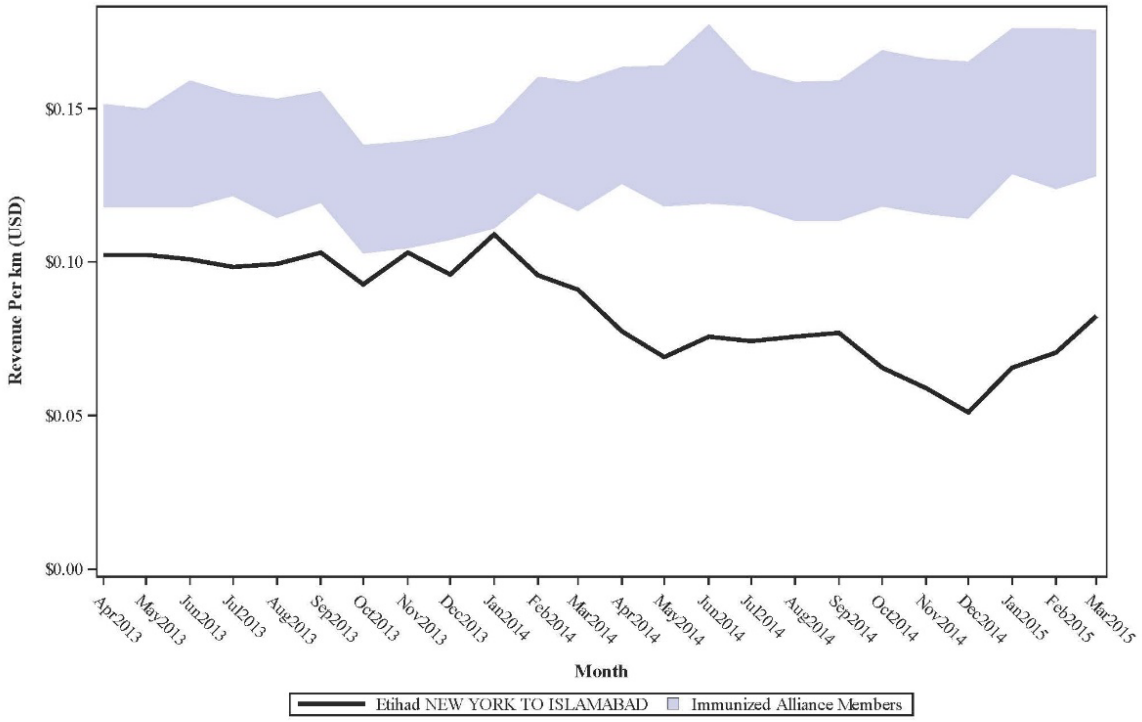
[3] There are 7 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 87% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D6
ETIHAD REVENUE PER KILOMETER ON NEW YORK TO ISLAMABAD ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM NEW YORK TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, KLM, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: NYC-FRA, NYC-LON, NYC-PAR.

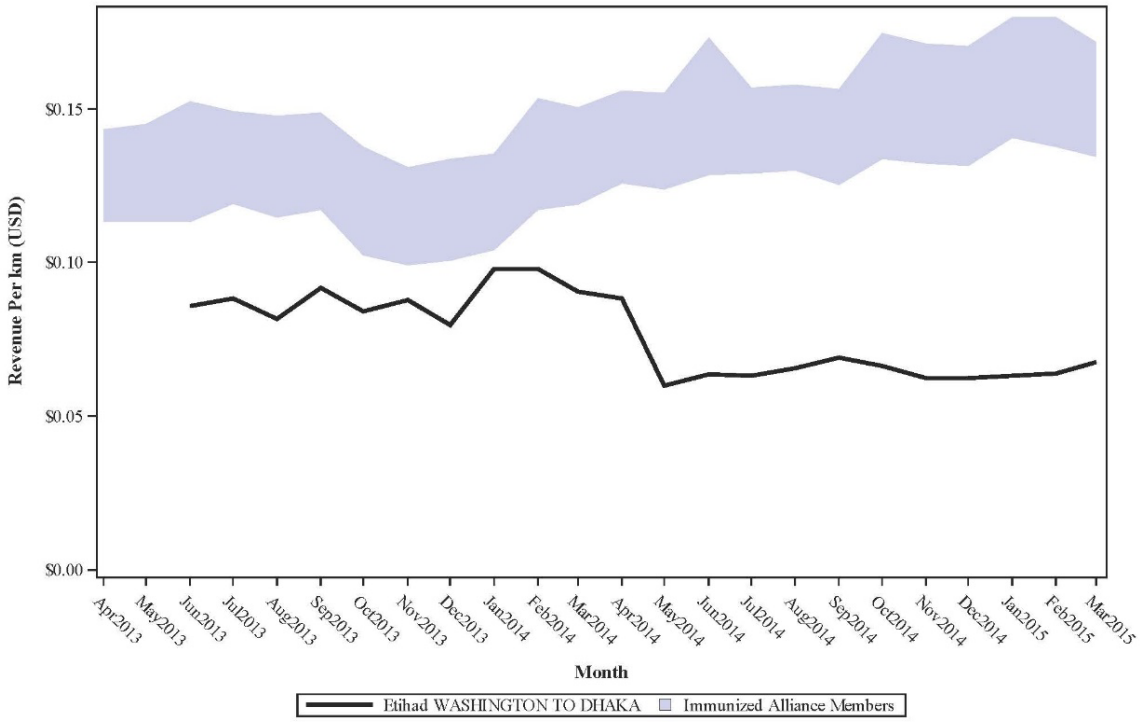
[3] There are 7 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 69% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D7
ETIHAD REVENUE PER KILOMETER ON WASHINGTON D.C. TO DHAKA ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM WASHINGTON D.C. TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: American, British Airways, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: WAS-FRA, WAS-LON.

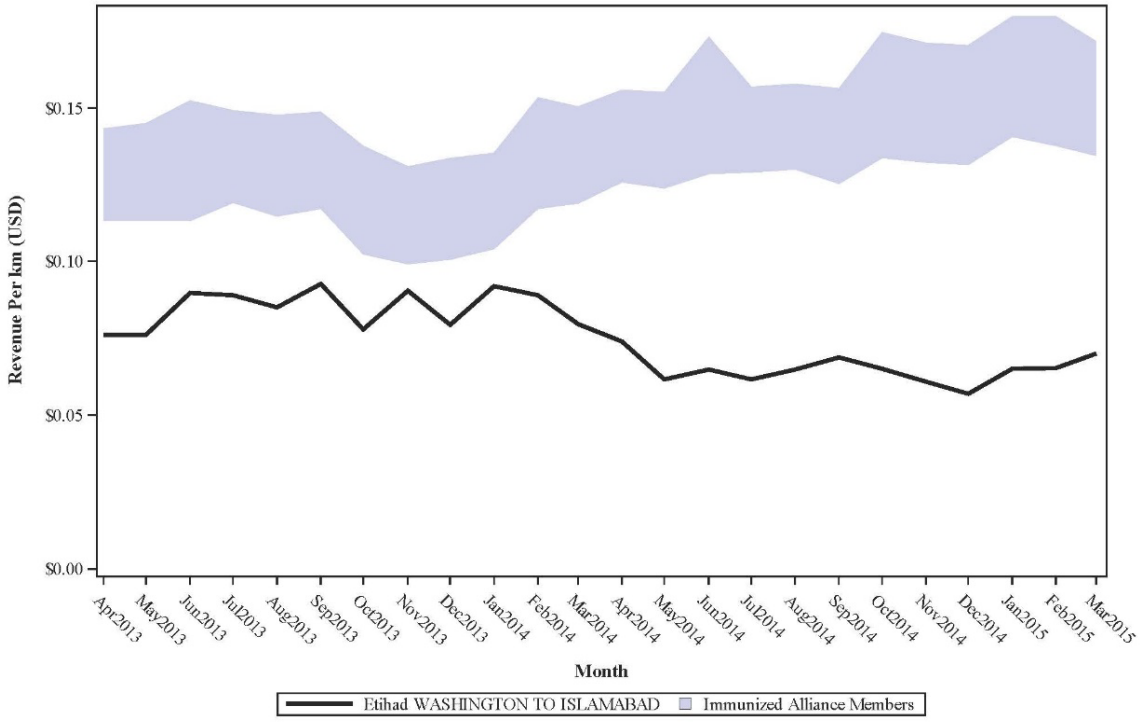
[3] There are 4 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 82% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com

FIGURE D8
ETIHAD REVENUE PER KILOMETER ON WASHINGTON D.C. TO ISLAMABAD ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM WASHINGTON D.C. TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: American, British Airways, Lufthansa, and United.

Benchmark includes fares published by carriers on the following routes: WAS-FRA, WAS-LON.

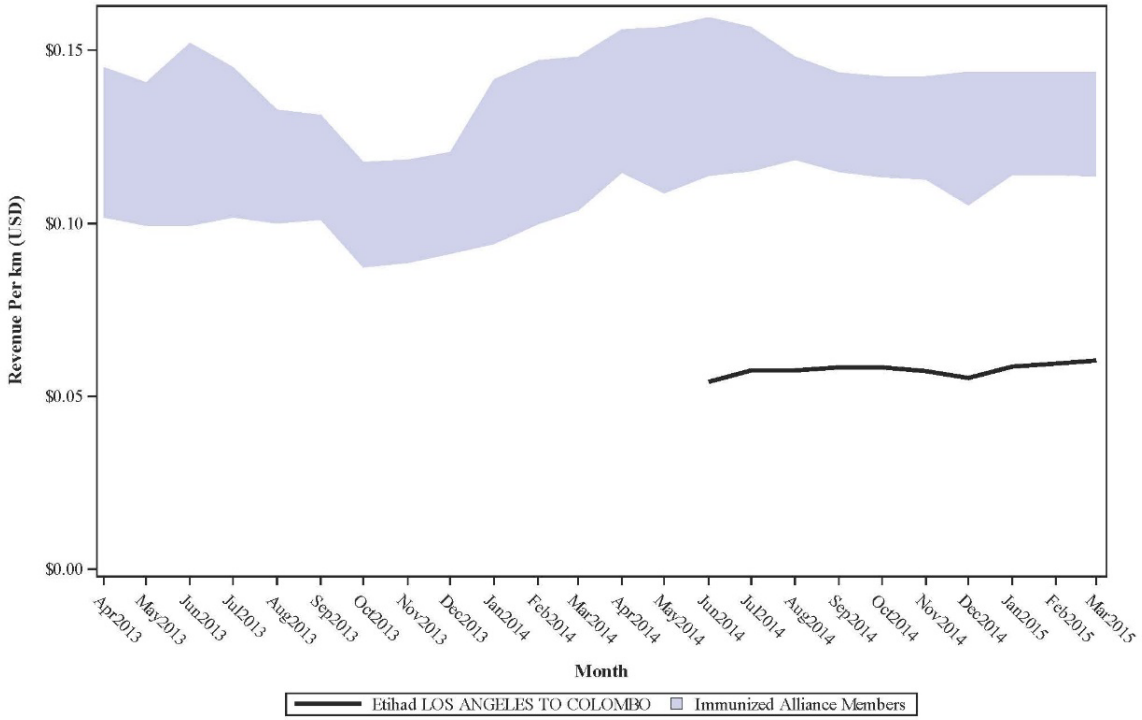
[3] There are 4 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 85% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D9
ETIHAD REVENUE PER KILOMETER ON LOS ANGELES TO COLOMBO ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM ATLANTA OR DALLAS TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, and KLM.

Benchmark includes fares published by carriers on the following routes: ATL-AMS, ATL-PAR, DFW-LON.

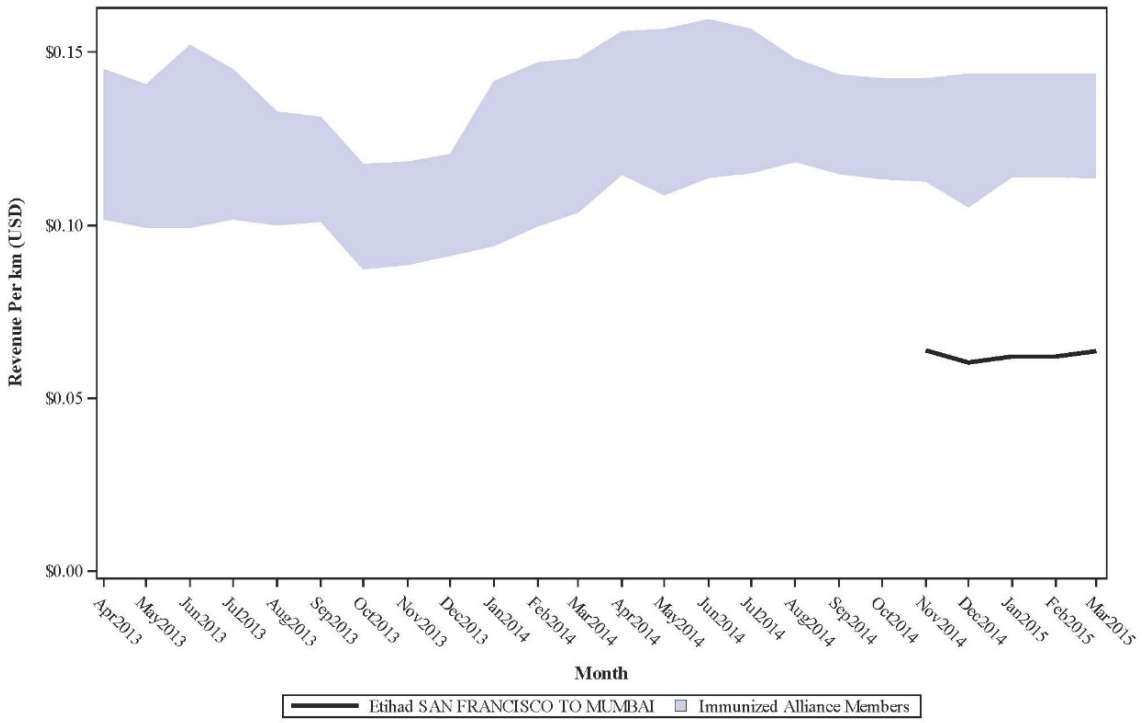
[3] There are 8 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 120% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D10
ETIHAD REVENUE PER KILOMETER ON SAN FRANCISCO TO MUMBAI ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM ATLANTA OR DALLAS TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, and KLM.

Benchmark includes fares published by carriers on the following routes: ATL-AMS, ATL-PAR, DFW-LON.

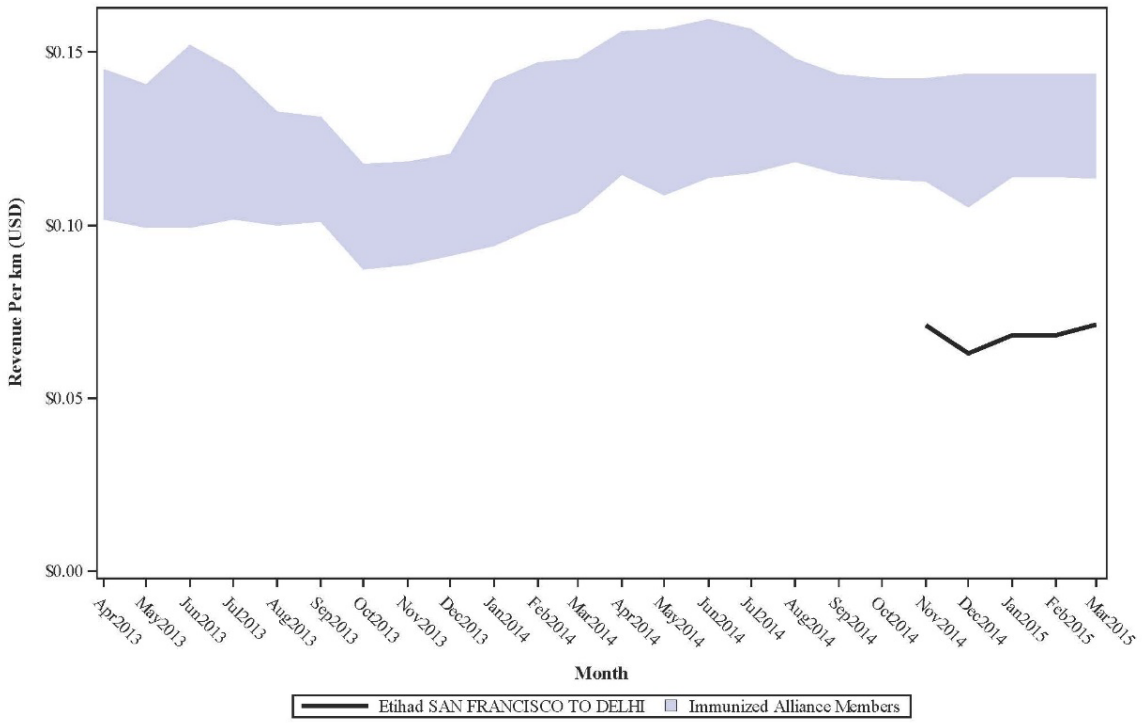
[3] There are 8 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 91% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.

FIGURE D11
ETIHAD REVENUE PER KILOMETER ON SAN FRANCISCO TO DELHI ROUTE COMPARED TO IMMUNIZED ALLIANCE MEMBERS' REVENUES PER KILOMETER FROM ATLANTA OR DALLAS TO KEY IMMUNIZED EUROPEAN DESTINATIONS
APRIL 2013 – MARCH 2015



Notes:

[1] ATPCO data only contain base fares, which are supplemented by data on taxes and fees from GDS (for each carrier and route combination) in order to calculate all-in fares. All fares have been converted to US dollars. The analysis uses each carrier's median published round trip economy fare for a given route and month. Premium Economy fares are not included in the analysis.

[2] Benchmark includes Immunized Alliance members as per the U.S. DOT Compendium of Antitrust Immunity Cases: Air France, American, British Airways, Delta, and KLM.

Benchmark includes fares published by carriers on the following routes: ATL-AMS, ATL-PAR, DFW-LON.

[3] There are 8 distinct benchmark carrier-route pairings.

[4] On average, the median benchmark fare per-kilometer is 75% higher than Etihad's median fare.

Sources:

ATPCO and GDS pricing data; www.gcmap.com.