

Alliances and Antitrust Immunity: Why Domestic Airline Competition Matters

By Diana L. Moss

The debate over competition in the U.S. airline industry in recent years has focused largely on developments in domestic airline markets, ranging from mergers, access to airports (e.g., slots), alleged anticompetitive coordination on airline capacity and ancillary fees, and concerns over deteriorating quality of air service.¹ Airline competition in international markets, however, also raises concerns and merits scrutiny. Chief among these concerns is the U.S. Department of Transportation's (DOT's) policy of granting immunity from U.S. antitrust laws (ATI) for coordination on schedules and fares by members of the three large international airline alliances: Star Alliance, oneworld, and SkyTeam. A second issue of concern is barriers to entry by foreign carriers on international routes serving U.S. destinations. U.S. legacy carriers have opposed such entry while simultaneously expanding their stakes in foreign carriers, perhaps to gain control over decisions to enter U.S. markets.²

These developments highlight the growing nexus between international and domestic passenger airline competition issues. The implications of ATI are serious for U.S. consumers who travel on nonstop and connecting international alliance itineraries that involve numerous U.S. gateway airports. Many of these gateways have become significantly more concentrated over the past decade as the result of U.S. airline consolidation, raising concerns about foreclosure of competition by smaller, nonaligned carriers, higher fares, and less choice of carriers for consumers. These changes undercut claims that ATI brings substantial benefits to U.S. consumers in "behind-gateway" and "beyond-gateway" markets served by the alliances. Such markets can be defined in a number of ways, including nonstop or connecting airport or city pairs served by the alliances and alliance networks.

Recently, some of the large U.S. network carriers have escalated their efforts to highlight allegedly "robust" competition in U.S. markets.³ This advocacy comes at a time when a large number of ATI applications are pending at the DOT. These include: American Airlines-Qantas, Delta-WestJet, Hawaiian-Japan Airlines, Delta-Air France KLM-Virgin Atlantic, and American-British Airways-Iberia-Finnair-Aer Lingus.⁴ In light of the DOT's recent rejection

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of some requests for ATI, it makes sense that U.S. airlines that dominate the three international alliances (Delta, United, and American) would focus on highlighting allegedly competitive conditions in U.S. markets to support their requests for ATI. This article argues that such conditions, which are not as rosy as these airlines claim, are *precisely* the reason why policy surrounding ATI is ripe for reconsideration. The article provides a brief review of alliance growth over the past 25 years and dominance of U.S. carriers in these alliances, examines the shift in economic evidence regarding the costs and benefits of ATI, and provides empirical analysis that highlights competitive concerns over ATI and its implications for U.S. consumers. The article concludes with policy recommendations.

Growth of International Airline Alliances and Dominance of U.S. Carriers

Three major international airline alliances and a number of smaller alliances serve thousands of global routes. Alliances are agreements among member carriers to cooperate in such areas as scheduling and pricing, often in ways that have significant implications for competition and consumers. These arrangements include, in increasing order of cooperation among carriers, agreements to: (1) interline with carrier partners (i.e., transfer passengers traveling on connecting itineraries), (2) share frequent flyer programs, (3) codeshare, (4) coordinate pricing and schedules, and (5) engage in almost fully integrated revenue and profit-sharing joint venture-type coordination.⁵ Alliance carriers have expanded ATI over the last 25 years to permit forms of joint venture-type coordination. There are currently 25 active immunized alliances.⁶ Three of the four largest alliances have received ATI in the last decade, which has witnessed dramatic growth in alliance membership and the largest number of U.S. legacy carrier mergers.

Since the first international alliance was founded, key features of the three alliances have changed. For example, Star Alliance was formed in 1997 with five founding members: United, Lufthansa, Air Canada, Thai Airways, and SAS. Membership now stands at 27 airlines.⁷ Sky-Team, founded in 2000, had four original members: Delta, Air France, Aeromexico, and Korean Air Lines. Nineteen carriers are currently members.⁸ Five airlines founded oneworld in 1999: American, British Airways, Canadian, Qantas, and Cathay Pacific. By 2017 the alliance had grown to 13 members.⁹ The three international alliances now account for a substantial portion of international traffic—nearly 60 percent in 2017.¹⁰ Star Alliance had the highest alliance market share based on traffic, with 38 percent, followed by SkyTeam with 33 percent, and oneworld with 29 percent.¹¹

U.S. carriers have a significant international presence. In 2015, American, Delta, and United together accounted for almost 45 percent of total scheduled international passenger-miles.¹² The major U.S. carriers have developed dominant positions within the international airline alliances through a series of large domestic mergers that combined Delta and Northwest, United and Continental, and American and US Airways.13 United's share of Star Alliance traffic increased from 35 percent to almost 60 percent from 2008 to 2016.14 Likewise, American's share of oneworld traffic increased from 47 percent to 67 percent over the same period. Delta's share of SkyTeam traffic, meanwhile, increased from 37 percent to 56 percent. The growth of the U.S. carriers within the alliances has come at the expense of their largest European partners. British Airways' share in oneworld dropped from 22 percent in 2008 to 12 percent in 2016. Similarly, Lufthansa's share in Star Alliance declined from 18 percent to 6 percent, and Air France KLM's share in SkyTeam fell from 19 percent to 13 percent.

DOT's Approach to ATI

A grant of ATI protects certain forms of conduct that would otherwise violate the U.S. antitrust laws. These include unilateral (single-firm) conduct and joint (coordinated) conduct that could, if not immunized, adversely affect price, output, and non-price dimensions of competition. ATI for airline alliances is a form of express statutory immunity that the DOT has authority to grant pursuant to 49 U.S.C. sections 41308-41309. The U.S. Supreme Court has repeatedly held that exemptions and immunities are "disfavored" and should be "strictly construed."15 The bipartisan Antitrust Modernization Commission (AMC) recommended in 2007 that Congress "should not displace free-market competition [with immunities or exemptions] absent extensive, careful analysis and strong evidence."16 The AMC recommended imposing sunset provisions on all immunities enacted by Congress and amending existing immunities and exemptions to include sunset provisions.¹⁷

The DOT uses a two-step process to review alliance agreements. First, the DOT may approve an agreement that "substantially reduces or eliminates competition" only if it meets a "serious transportation need" or "achieve[s] important public benefits."¹⁸ The burden of showing that an agreement is anticompetitive rests on the parties opposing the request while the parties proposing the agreement bear the burden of showing need or public benefits. The DOT has increasingly insisted on "full metal neutral" integration for immunized alliance agreements to maximize incentives to realize claimed public benefits.¹⁹ Joint venture–type coordination affects pricing, scheduling, service levels, and other factors that mimic the fully integrated operations of a single carrier. Second, the DOT has the discretion to exempt parties to an agreement from the antitrust laws "to the extent necessary to allow the person to proceed with the transaction."²⁰ In other words, the DOT may grant ATI in order to approve an otherwise anticompetitive agreement that meets the public benefit test.

Alliance carriers typically support requests for ATI by downplaying competitive concerns and highlighting alleged public benefits that are required to justify immunized coordination.²¹ They make three general arguments. One is that immunized coordination is not equivalent to the loss of a competitor, because both partners generally continue to serve overlap routes, lowering fares and expanding capacity at alliance hubs.²² Second, ATI purportedly benefits passengers by creating complementary end-to-end alliance networks. This enables the immunized carriers to integrate itineraries on connecting (e.g., one-stop) routes, offer new services to more city-pair markets, and enhance competition between airlines for cities behind and beyond gateways, leading to lower fares than what nonalliance interlining carriers could offer.23 Third, revenue and profit sharing and closer integration enabled by immunity allegedly allows carriers to compete more effectively against the immunized portions of other alliances that serve similar international routes.²⁴

Competitive Concerns Raised by Alliance Immunity

The DOT's historical approach to granting ATI is best described as "lenient," perhaps influenced by economic studies of the 1990s that generally showed benefits of ATI. With domestic consolidation and the growth of the alliances, there has arguably been a paradigm shift at the DOT by using ATI to foster "alliance market" competition. Against the backdrop of domestic consolidation and growth in the dominance of the U.S. alliance carriers, the DOT's approach has led U.S. legacy airlines to all but stop objecting to requests for ATI by rival alliances. Between 1993 and 2007, for example, U.S. legacy carriers opposed rivals' requests for ATI, filing comments in almost 45 percent of the DOT's ATI dockets over this period. In contrast, between 2007 and 2017, the decade which saw the spate of large mergers, there were *no* objections to ATI requests by U.S. legacy carriers. More (not less) competition would stimulate rivals' objections to others' ATI requests.

More recently, the DOT has raised a number of competitive concerns associated with immunized alliance agreements.²⁵ Among these are the significant loss of head-to-head competition on international overlap routes and access by nonalliance carriers to interlining with alliance carriers at alliance gateways.²⁶ Empirical studies performed since the late 2000s tell a very different story of the effects of ATI than earlier studies.²⁷ For example, recent studies find that even *without* ATI, cooperation under alliance agreements can enhance incentives to collude on price on parallel transatlantic routes, resulting in higher fares unless there are offsetting efficiency gains.²⁸ Operating *with* ATI would thus raise even more questions about potential anticompetitive effects.

Some economic studies note that competition may be reduced on routes served by substitute, immunized alliance carriers.²⁹ One study using data from 2005 to 2010 shows that immunized service offered by two alliance partners on a transatlantic route has a "fare effect that is equivalent to the loss of an independent competitor," with significantly higher fares on routes with fewer independent competitors.³⁰ Other studies find that while immunized joint ventures increase capacity between alliance partners' hub airports by 3-5 percent, this expansion comes at the expense of services elsewhere in the network.³¹ And analysis shows that when an alliance member competes with a nonalliance interlining carrier, foreclosure of the latter at alliance hubs increases disparities in market share and potentially lowers interlining traffic.32 Moreover, ATI does not lead to alliance fares for passengers below those sold under nonimmunized arrangements.

The U.S. Department of Justice (DOJ) filed seven formal comments in ATI proceedings between 1996 and 2008.33 In the Aloha-Hawaiian ATI case, for example, the DOJ recommended against ATI that would have allowed the parties to form a joint venture to coordinate capacity on interisland routes.³⁴ In the American-British Airways-Iberia-Finnair-Royal Jordanian Airlines ATI case, the DOJ identified a likely 15 percent fare increase on affected transatlantic routes, found no public benefits, and recommended that the DOT deny the application.³⁵ The DOJ also recommended denying ATI in the Alitalia-Czech-Delta-KLM-Northwest-Air France case.³⁶ The DOJ noted in the American-British Airways case that fares are higher on immunized nonstop routes.37 The agency also rejected claims that alliance carriers' market power is diluted by increases in capacity and traffic and that ATI lowers fares for alliance interlining based on evidence that unimmunized alliance carriers are capable of managing pricing and inventory in order to compete with nonalliance interlining.38

The DOJ has also recommended slot divestitures or route carve-out remedies to the DOT in cases where ATI would harm competition and consumers.³⁹ Between 1993 and 2009, the DOT required route carve-outs in eight cases. Since the late 2000s, however, slot divestitures appear to have augmented or replaced carve-outs to encourage new entry.⁴⁰ The DOT first required slot divestitures in the 2008 oneworld transatlantic case, and in 2016 required divestiture of slots at Mexico City (MEX) and New York's John F. Kennedy International Airport (JFK) to out-of-market low-cost carriers in the Delta and Aeromexico case.⁴¹ In a few more recent cases, the DOT has denied ATI. In the 2013 Air France KLM-Air Tahiti Nui-Delta-Alitalia case, the agency denied immunity for a trunk route between Paris and Los Angeles, citing a reduction in the number of competitors and enhanced incentives to restrict capacity.⁴² In 2016, the DOT tentatively denied ATI to American and Qantas for routes operated between Australia/New Zealand and the United States.⁴³ The agency rejected public benefits claims, noting that the viability of new routes was not dependent on ATI and that few passengers would benefit from an extended network.⁴⁴

The Alliances and U.S. Consumers: Domestic Consolidation, High Concentration, and Limited Market Entry

The competitive implications of immunized alliances are particularly important for U.S. consumers, especially in light of the sweeping domestic consolidation among the largest U.S. network airlines over the last decade. This consolidation has affected U.S. alliance carriers' market shares on routes and at alliance hubs and smaller U.S. airports.⁴⁵ Consequently, concentration among the "big three" immunized alliances on transatlantic routes, which are some of the busiest in the world, remains extremely high. Entry on such routes is difficult, as exemplified by the the Norwegian Air International (NAI) case (discussed below), yet remains one of the only ways in which to inject competition and benefit consumers.

A second reason to consider the effects of domestic consolidation on ATI policy is that alliance routes utilize gateways (hubs) in the United States to service nonstop itineraries and connecting (i.e., one-stop) itineraries to route U.S. passengers to behind- and beyond-gateway markets. High concentration at those hubs limits choice for consumers and increases the risk of foreclosing rivals from interlining to deliver passengers to their ultimate destination. The analysis in this section highlights major statistics that support each of these concerns.

High-Traffic Transatlantic Routes Are Intensely Concentrated, Limiting Entry by Smaller, Nonallied Carriers

Transatlantic traffic between Europe and the United States accounted in 2015 for the highest proportion of total global traffic (about 11 percent), as measured by global passenger-kilometers.⁴⁶ Immunized alliance carriers have maintained high market shares on these transatlantic routes. Long-haul routes are difficult for smaller, nonaligned airlines to enter because they require infrastructure and other capabilities that are often outside the scope of smaller carriers' resources and business models. An examination of market shares for the busiest immunized Europe–U.S. routes served by oneworld (American and British Airways) and SkyTeam (Delta and Air France KLM) before and after consolidation of the major U.S. carriers (i.e., 2007 and 2016) reveals the key role of market entry.⁴⁷ These routes include: (1) Paris (CDG) to New York (JFK), Los Angeles (LAX), and San Francisco (SFO); and (2) London Heathrow (LHR) to Dallas Forth Worth (DFW), JFK, LAX, and SFO.

On the majority of routes, only relatively small changes in combined alliance carrier (nonstop) shares occurred between 2007 and 2016. For example, the combined share of Delta and Air France on the CDG-JFK and CDG-LAX routes remained at around 80 percent over the period. The combined share of American and British Airways remained at 100 percent on the LHR-DFW route. American-British Airway's share dropped from 67 percent to 62 percent on the LHR-JFK route, but increased somewhat on the LHR-LAX (51 percent to 59 percent) and LHR-SFO (40 percent to 45 percent) routes. With the exception of the CDG-SFO route, where United's entry likely forced Delta-Air France's share down from 100 percent to 75 percent, the major source of new or expanded entry on routes dominated by the immunized alliances is smaller, nonaligned carriers. By 2016, NAI had entered the CDG-JFK and CDG-LAX markets and stolen shares from alliance carriers. But these shares were small (3-4 percent). Virgin Atlantic, which was already in the market in 2007, expanded modestly on the LHR-JFK and LHR-SFO routes (about 3 percent) but not enough in the latter case to counter growth in market share by the alliance carriers.⁴⁸

While entry or expansion of smaller carriers is likely to dilute highly concentrated route markets and introduce pricing discipline, those carriers face significant challenges to enter these markets and sustain service. NAI's entry into U.S. markets was a protracted process.⁴⁹ Its application for a foreign air carrier permit under the U.S.-European Union Air Transport Agreement remained pending before the DOT for over two years amid controversy over whether the airline's labor practices complied with the Agreement's requirements. U.S. airlines and their unions opposed the application, but the DOT finally approved the application in 2016.⁵⁰ In a similar vein, the three U.S. legacy carriers opposed certain services operated by Emirates, Etihad Airways, and Qatar Airways and any planned expansion of those services on the basis that those carriers benefit from alleged state subsidies.⁵¹ Thus, the immunized alliance carriers have used political strategies to obstruct new competitive entry by foreign airlines into alliance-dominated U.S. routes.⁵²

U.S. Alliance Gateways Are Highly Concentrated, Limiting Choice Behind and Beyond the Gateway The claimed benefits from immunized, complementary end-to-end alliance networks depends on competitive conditions at U.S. alliance gateways where consumers connect to behind- and beyond-gateway markets. The wave of consolidation over the last decade in the United States has increased concentration at many airports that are the point of connection for alliance traffic. This is particularly true of smaller and mediumsized airports in the United States.

The table below shows market concentration⁵³ at selected airports of the 22 U.S. alliance domestic connecting airports for Europe-U.S. traffic for the three immunized alliances in 2007 and in 2016.54 Results show that concentration increased at over 60 percent of connecting airports on one-stop transatlantic itineraries between 2007 and 2016. Increases in concentration at selected airports were as high as 84 percent at Phoenix (PHX), 63 percent at Philadelphia (PHL), 53 percent at Seattle (SEA), and 49 percent at San Diego (SAN). Decreases in airport concentration were significant at Houston (IAH) (-31 percent) and Minneapolis-St. Paul (MSP) (-31 percent) (not shown). But such decreases were outstripped by increases in concentration at other airports. And 50 percent of airports that showed increases in concentration over the period were highly concentrated in 2016. The DOJ/Federal Trade Commission (FTC) Horizontal Merger Guidelines recognize that highly concentrated markets are much more conducive to anticompetitive outcomes through the enhanced likelihood that market participants will exercise market power, either alone or in coordination with rivals.⁵⁵

High concentration at U.S. alliance gateways means less competition from other carriers and less choice for consumers. For example, the Dallas Ft. Worth airport supported oneworld's application for ATI in 2010, stating that ATI would "benefit DFW and its travelers because the London-DFW route will develop into a 'pipeline' route with improved services."56 The reality is far different. Not only did oneworld maintain a monopoly on the LHR-DFW route in 2016, as it did in 2007, but ATI has not produced any discernable increases in behind/beyond-gateway benefits. For example, the number of airports served from DFW by American flights was 75 in 2007 and increased only to 78 in 2016.⁵⁷ PHX, a connecting airport also used by oneworld, saw the highest increase in concentration (80 percent) and 20 percent fewer carriers operating between 2007 and 2016.58 And the number of cities served did not change at all over the period. Similar analyses can be done for other airports that serve as connecting hubs for alliance traffic.

Much like the effects that highly concentrated immunized transatlantic routes have on discouraging entry, high concentration at alliance connecting airports also raises entry barriers and increases the risk that smaller nonaligned carriers (e.g., low-cost carriers) will be foreclosed from interlining at alliance hubs. And in cases where there is competition on connecting alliance itineraries, high hub concentration increases incentives for carriers to coordinate instead of compete. These concerns undercut arguments that immunity promotes benefits for consumers in behindand beyond-gateway markets in the United States.

Policy Implications for ATI

The foregoing analysis raises troubling questions about the competitive implications of granting ATI for airline alliances, with serious implications for U.S. consumers. U.S. policies regarding airline alliances should not exist in an international vacuum. Domestic consolidation has affected the role and dominance of U.S. network carriers in their respective alliances on domestic nonstop routes and the behind- and beyond-gateway markets, which are directly connected to the international routes these carriers and their immunized alliance partners serve. Thus, ATI has a profound impact on competition and consumer welfare in international and domestic markets. Below are suggestions and policy recommendations that emerge from this discussion. Specifically, the DOT should:

- Frame an ATI policy that more proactively responds to changes in competition conditions in U.S. markets by subjecting grants of ATI to sunset provisions;
- Look skeptically at arguments that ATI creates benefits for consumers in behind-gateway and beyond-gateway markets and require carriers to demonstrate that ATI has benefited consumers;
- Conduct periodic (five-year) reviews of grants of ATI, consistent with the time limitation the DOT imposed, for the first time, on the duration of its grant of ATI to the Delta-Aeromexico alliance;
- Make ease of entry by nonalliance carriers a primary consideration in reviewing existing and prospective grants of ATI; and
- Reject arguments that alliances require ATI because they need to compete in the "alliance market."

Endnotes

1. See Jackie Wattles, Judges Order FAA to Review Airplane Seat Sizes, CNN MONEY (July 29, 2017), http://money. cnn.com/2017/07/29/news/companies/faa-airline-seat-sizes/ index.html.

2. See Jad Mouawad, Open-Skies Agreements Challenged, N.Y. TIMES (Feb. 6, 2015), https://www.nytimes. com/2015/02/07/business/us-airlines-challenge-open-skiesagreements.html. The term "legacy carrier" refers to the hub-and-spoke network carriers: American Airlines, Delta Air Lines, and United Airlines. Hugo Martin, *Big U.S. Airlines' Foreign Buying Spree Raises Competition Questions*, L.A. TIMES (Feb. 27, 2018), http://www.latimes.com/business/la-fiairlines-invest-in-foreign-carriers-20180227-story.html.

3. Peter Carter, *A Merged Delta-Northwest Brought Consumer Benefits*, AVIATION DAILY (Oct. 30, 2018), http:// aviationweek.com/awincommercial/merged-delta-northwestbrought-consumer-benefits. Carter is executive vice president and chief legal officer at Delta Air Lines.

4. Joint Application of American Airlines and Qantas Airways for Approval of and Antitrust Immunity for Proposed Joint Business Agreement, Docket No. DOT-OST-2018-0030 (Dep't of Transp. Feb. 26, 2018) [hereinafter American-Qantas ATI Application]; Joint Application of Delta and WestJet for Approval of and Antitrust Immunity for Alliance Agreements, Docket No. DOT-OST-2018-0154 (Dep't of Transp. Oct. 10, 2018); Joint Application of Hawaiian Airlines and Japan Airlines for Approval of and Antitrust Immunity for Alliance Agreements, Docket No. DOT-OST-2018-0084 (Dep't of Transp. June 14, 2018); Joint Motion to Amend Order 2013-9-14 to Approve and Extend Antitrust Immunity to Amended and Restated Transatlantic Joint Venture Agreement, Docket No. DOT-OST-2013-0068 (Dep't of Transp. July 20, 2018); Joint Motion to Amend Order 2010-7-8 for Approval of and Antitrust Immunity for Amended Joint

Airport	HHI in 2007	HHI in 2016	Percentage Increase in HHI
Atlanta (ATL)	4,454	5,633	26%
Boston (BOS)	1,391	1,892	36%
Charlotte (CLT)	5,681	7,598	34%
Las Vegas (LAS)	1,252	1,807	44%
Philadelphia (PHL)	2,272	3,700	63%
Phoenix (PHX)	1,715	3,153	84%
San Diego (SAN)	1,144	1,705	49%
San Jose (SJC)	1,387	1,997	44%
Seattle (SEA)	1,643	2,515	53%

Changes in Concentration at Selected U.S. Alliance Connecting Airports (2007-2016)

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Business Agreement, Docket No. DOT-OST-2008-0252 (Dep't of Transp. Dec. 21, 2018).

5. PAUL STEPHEN DEMPSEY, INST. OF AIR & SPACE LAW, AIRLINE ALLIANCES 13 (2011), https://www.mcgill.ca/iasl/files/iasl/ASPL614-Alliances.pdf.

6. Airline Alliances Operating with Active Antitrust Immunity, U.S. DEP'T OF TRANSP., https://www.transportation. gov/office-policy/aviation-policy/airline-alliances-operatingactive-antitrust-immunity (last updated Nov. 20, 2018).

7. *See Member Airlines*, STAR ALLIANCE, https://www. staralliance.com/en/member-airlines (last visited Mar. 5, 2019).

8. *See About Us*, SkyTEAM, https://www.skyteam.com/en/about (last visited Mar. 5, 2019).

9. *See Member Airlines*, ONEWORLD, https://www.oneworld. com/members (last visited Mar. 5, 2019).

10. Leading Airline Alliances in 2017, by Market Share, Statista (Aug. 2018), https://www.statista.com/ statistics/718635/airline-alliances-market-share/ (shares based on total revenue passenger-kilometers).

11. Press Release, IATA, More Than 7% Increase in Air Travel Compared to Last Year (Oct. 9, 2017), http://www. iata.org/pressroom/pr/Pages/2017-10-09-01.aspx (shares based on total alliance passenger-kilometers scheduled).

12. Summary of Passenger and Freight Traffic, IATA 1 (2016), http://www.iata.org/pressroom/pr/Documents/ WATS_2016-infographic.pdf.

13. Micheline Maynard, United and Continental Form Alliance, N.Y. TIMES (June 20, 2008), https://www.nytimes. com/2008/06/20/business/20alliance.html; see also Jad Mouawad & Michael J. de la Merced, United and Continental Said to Agree to Merge, N.Y. TIMES (May 20, 2010), http://www.nytimes.com/2010/05/03/business/03merger. html; Genevieve Shaw Brown, What the US Airways and American Airlines Merger Means for Travelers, ABC NEWS (Feb. 14, 2013), http://abcnews.go.com/Travel/ us-airways-american-airlines-merger-means-travelers/ story?id=18411484; Benjamin Zhang, Delta, United, and American Have "Dissolved into One Big Homogeneous Blob"—and It's Terrible News for Consumers, Bus. INSIDER (Aug. 11, 2016), http://www.businessinsider.com/deltaunited-american-homogeneous-blob-2016-8; Press Release, Delta Air Lines, Delta and Northwest Merge, Creating Premier Global Airline (Oct. 29, 2008), http://news.delta.com/ delta-and-northwest-merge-creating-premier-global-airline.

14. Data for 2008 and 2016 extracted from T-100 International Segment (All Carriers). *TranStats*, BUREAU TRANSP. STAT., https://www.transtats.bts.gov.

15. *See, e.g.*, S. Motor Carriers Rate Conference, Inc. v. United States, 471 U.S. 48, 68 (1985); Union Labor Life Ins. Co. v. Pireno, 458 U.S. 119, 126 (1982).

16. ANTITRUST MODERNIZATION COMM'N, REPORT AND RECOM-MENDATIONS 334 (2007), http://govinfo.library.unt.edu/amc/ report_recommendation/amc_final_report.pdf. The AMC went on to explain that the courts should "construe all immunities and exemptions from the antitrust laws narrowly." *Id.* at 337.

17. Id.

18. 49 U.S.C. § 41309(b)(1). The showing must also demonstrate that a need or benefits cannot be met or achieved by reasonably available alternatives that are materially less anticompetitive. Public benefits include international comity and foreign policy considerations. *Id.*

19. DEMPSEY, supra note 5, at 19.

20. 49 U.S.C. § 41308(b).

21. *See, e.g.*, Reply of the Joint Applicants, Docket No. DOT-OST-2004-19214 (Dep't of Transp. July 6, 2005), https://www.regulations.gov/ document?D=DOT-OST-2004-19214-0114-0007.

22. See, e.g., Joint Application for Approval of and Antitrust Immunity for Alliance Agreements, Docket No. DOT-OST-2013-0068, at 41–42 (Dep't of Transp. Apr. 8, 2013), https://www.regulations.gov/ document?D=DOT-OST-2013-0068-0001.

23. Other alleged benefits include streamlined ticketing and baggage handling and consolidated frequent flyer benefits across alliance carriers.

24. See Terry Maxon, DOT Approves Antitrust Immunity for Continental, Star Alliance Partners, DALLAS NEWS (July 2009), https://www.dallasnews.com/business/airlines/2009/07/10/ dot-approves-antitrust-immunit. American Airlines responded to the DOT's grant of immunity for the Star Alliance partners with: "Moreover, the lack of consistent grants of antitrust immunity would distort competition among Star, Sky-Team and oneworld." Response of American Airlines, Inc. to Comments of the Department of Justice, Docket No. DOT-OST-2008-0234-0248, at 1 (Dep't of Transp. July 6, 2009).

25. *See, e.g.*, Order to Show Cause, Docket No. DOT-OST-2004-19214, at 2, 15–16 (Dep't of Transp. Dec. 22, 2005), https://www.regulations.gov/document?D=DOT-OST-2004-19214-0195; Comments of the Department of Justice, Docket No. DOT-OST-2004-19214 (Dep't of Transp. Aug. 19, 2005), https://www.justice.gov/atr/ comments-department-justice-6.

26. See James Reitzes & Diana Moss, Airline Alliances and Systems Competition, 45 Hous. L. Rev. 293 (2008).

27. See William Gillespie & Oliver M. Richard, Antitrust Immunity Grants to Joint Venture Agreements: Evidence from International Airline Alliances 7 (Econ. Analysis Grp., Discussion Paper No. EAG 11-1, 2012), https://papers.ssrn. com/sol3/papers.cfm?abstract_id=1764083.

28. Xiang Wan et al., *Assessing the Price Effects of Airline Alliances on Parallel Routes*, 45 TRANSP. Res. PART E: LOGISTICS & TRANSP. Rev. 627, 628 (2009).

29. W. Tom Whalen, A Panel Data Analysis of Code-Sharing, Antitrust Immunity, and Open Skies Treaties in International Aviation Markets, 30 Rev. INDUS. ORG. 39 (2007).

30. Gillespie & Richard, supra note 27, at 3.

31. At the same time, productive efficiencies (as measured by load factors) are 0.5–5.0 percent lower for joint venture routes as compared to those where alliance partners operate with ATI. *See* Volodymyr Bilotkach & Kai Hüschelrath, *Balancing Competition and Cooperation: Evidence from Transatlantic Airline Markets* (ZEW Ctr. for European Econ. Research, Discussion Paper No. 15-059, 2015), http:// ftp.zew.de/pub/zew-docs/dp/dp15059.pdf.

32. Volodymyr Bilotkach & Kai Hüschelrath, *Airline Alliances, Antitrust Immunity and Market Foreclosure* 8–10 (ZEW Ctr. for European Econ. Research, Discussion Paper No. 10-083, 2012), http://ftp.zew.de/pub/zew-docs/dp/dp10083.pdf.

33. These cases include American Airlines, Inc. (Docket No. DOT-OST-97-2058), U.S.-U.K. Alliance Case (Docket No. DOT-OST-2001-11029), Aloha Airlines, Inc. (Docket No. DOT-OST-2002-13002), International Air Transport Association (Docket No. DOT-OST-2003-14480), Alitalia-Linee Aeree Italiane-S.p.A. (Docket No. DOT-OST-2004-19214), Air Canada (Docket No. DOT-OST-2008-0234), and American Airlines, Inc. (Docket No. DOT-OST-2008-0252).

34. Order Approving Agreement and Granting Antitrust Immunity, Docket No. DOT-OST-2002-13002, at 3–4 (Dep't of Transp. Sept. 30, 2002), https://www.regulations.gov/ document?D=DOT-OST-2002-13002-0014.

35. Comments of the Department of Justice, Docket No. DOT-OST-2008-0252, at 14 (Dep't of Transp. Dec. 21, 2009) [hereinafter American-British Airways DOJ Comments], https://www.regulations.gov/ document?D=DOT-OST-2008-0252-3374.

36. Comments of the Department of Justice, Docket No. DOT-OST-2004-19214 (Dep't of Transp. Aug. 19, 2005), https://www.regulations.gov/document?D=DOT-OST-2004-19214-0164.

37. American-British Airways DOJ Comments, *supra* note 35, at 15–16.

38. Id. at 16-17, 32-33.

39. *See* Comments of the Department of Justice, Docket No. DOT-OST-2001-11029, at 49–54 (Dep't of Transp. Dec. 17, 2001), https://www.regulations.gov/ document?D=DOT-OST-2001-11029-0029.

40. *See, e.g.*, Press Release, Dep't of Justice, Justice Department Requires US Airways and American Airlines to Divest Facilities at Seven Key Airports to Enhance System-Wide Competition and Settle Merger Challenge (Nov. 12, 2013), https://www.justice.gov/opa/pr/ justice-department-requires-us-airways-and-americanairlines-divest-facilities-seven-key.

41. The DOT required the sell-off of fixed slots in the Boston-London market and fixed slots that could be used in any U.S.-Heathrow market. Final Order, Docket No. DOT-OST-2008-0252, at 15–19 (Dep't of Transp. July 20, 2010) [hereinafter American-British Airways Final Order], https://www.regulations.gov/document?D=DOT-OST-2008-0252-3406; *see also* Order to Show Cause, Docket No. DOT-OST-2015-0070, at 20–23 (Dep't of Transp. Nov. 4, 2016), https://www.regulations.gov/ document?D=DOT-OST-2015-0070-0074.

42. Order to Show Cause, Docket No. DOT-OST-2013-0077 (Dep't of Transp. Mar. 28, 2014), https://www.regulations.gov/ document?D=DOT-OST-2013-0077-0014. Los Angeles serves as a stopover on the route between the capital of French Polynesia and Paris.

43. Order to Show Cause, Docket No. DOT-OST-2015-0129, at 2 (Dep't of Transp. Nov. 18, 2016), https://www.regulations.gov/document?D=DOT-OST-2015-0129-0031.

44. *Id.* at 2, 19–21. American and Qantas subsequently withdrew their application but later refiled their request for ATI with the DOT, which remains pending. American-Qantas ATI Application, *supra* note 4.

45. See DIANA L. MOSS, AM. ANTTRUST INST., AIRLINE MERGERS AT A CROSSROADS: SOUTHWEST AIRLINES AND AIRTRAN AIRWAYS (2010), https://www.antitrustinstitute.org/wp-content/uploads/2011/03/ SouthwestAirTran-White-Paper.pdf; DIANA L. MOSS & KEVIN MITCHELL, AM. ANTITRUST INST. & BUS. TRAVEL COAL., THE PROPOSED MERGER OF US AIRWAYS AND AMERICAN AIRLINES (2012), http://www. businesstravelcoalition.com/documents/aai btc_paper.pdf.

46. *Summary of Passenger and Freight Traffic, supra* note 12, at 2.

47. See supra note 14.

48. In 2013, Virgin Atlantic received ATI for an alliance with Delta, Air France KLM, and Alitalia. Final Order, Docket No. DOT-OST-2013-0068 (Dep't of Transp. Sept. 23, 2013). Delta owns 49 percent of Virgin Atlantic.

49. See Joshua Posaner, Norwegian Airline Clouds Open Skies, POLITICO (Aug. 31, 2016), https://www.politico.eu/ article/norwegian-airline-nai-ireland-us-open-skies/.

50. Final Order, Docket No. DOT-OST-2013-0204, at 2 n.6 (Dep't of Transp. Nov. 30, 2016).

51. AM. AIRLINES ET AL., RESTORING OPEN SKIES: ADDRESSING SUBSIDIZED COMPETITION FROM STATE-OWNED AIRLINES IN QATAR AND THE UAE (2015), http://travelskills.com/wp-content/ uploads/2015/03/Presentation.pdf.

52. *See, e.g.*, Letter from Diana Moss, President, Am. Antitrust Inst., The Open Skies Debate—Promoting Competition or Protecting a U.S. Airline Oligopoly? (In re: DOT-OST-2015-0082) (Nov. 9, 2015), https://www. antitrustinstitute.org/wp-content/uploads/2018/08/AAI_ DOT-OST-2015-0082_11-10-15.pdf.

53. Based on the Herfindahl-Hirschman Index (HHI).

54. Data for 2007 and 2016 extracted from T-100 Domestic Market (U.S. Carriers). *TranStats*, BUREAU TRANSP. STAT., https://www.transtats.bts.gov.

55. See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, HORI-ZONTAL MERGER GUIDELINES § 5.3 (2010) (noting that highly concentrated markets have HHI values above 2,500).

56. American-British Airways Final Order, *supra* note 41, at 5–6.

57. See supra note 54 (based on seat data).

58. The analysis compared cities served by American and US Airways in 2007 to those served by American in 2016. This was necessary to create consistency due to the American-US Airways merger in 2013.