A Boost to the Immunity System: Defending the Enduring Benefits of ATI

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International airline passengers today expect seamless travel options across the globe. However, cabotage prohibitions, restrictions on foreign ownership, and other practical limitations prevent any single carrier from serving directly every destination to which its passengers want to travel. As a result, the international air transportation system relies on cooperation and partnerships between carriers to provide such seamless service.

International airline joint ventures (JVs) are at the forefront of the current system. They allow U.S. and foreign airlines, which generally cannot merge under existing laws, to achieve a high level of economic integration that provides substantial public benefits. JVs currently are the most efficient means to link separate and complementary airline networks. For example, by linking their networks, Delta and its international partners offer their customers attractive offerings (in terms of price, schedule, and efficiency) across a much larger global network with nearly the same efficiency as a single carrier.

The prior edition of The Air & Space Lawyer featured a cover story entitled “Alliances and Antitrust Immunity: Why Domestic Airline Competition Matters” by the American Antitrust Institute (AAI). The author argues that antitrust immunity (ATI) policy is out of date and requires reform. We disagree. In this article, we review the continuum of international airlines cooperation, outline the legal and policy framework for ATI, discuss the empirical evidence and practical examples that demonstrate the consumer benefits, and respond to recent criticisms that have been leveled by AAI and others. We offer a fact-based defense of why ATI is just as beneficial to the traveling public today as it was in the 1990s when the U.S. Department of Transportation (DOT) first used it to encourage restricted-entry countries to open their borders to aviation. We also highlight the DOT’s oversight over existing alliances and its review of new applications for ATI.

The Continuum of Airline Cooperation

International carriers have entered into a variety of agreements to augment the scope of their own networks. These arrangements range from basic cooperation such as “interlining” (agreements to carry passengers across two or more carriers on the same itinerary), to “code-sharing” (agreements whereby carriers place their marketing code on a flight operated by another carrier), to closer coordination via alliances, to the most integrated form, a JV partnership sharing revenue or profits.

Under a “metal-neutral” JV agreement, the partner carriers share incremental revenues (and, in some cases, profits and losses) derived from the services offered on covered routes, which causes the carriers to be indifferent as to which of them collects the revenue or operates the aircraft on those routes. That is, the JV partners effectively function as a single airline on the routes and activities within the scope of their cooperation. As such, they can be more efficient when they structure their joint network and schedule.

The cooperation creates substantial consumer benefits. In addition to providing more destinations to customers with an integrated network, JV partners work closely together to provide an enhanced passenger experience for customers, including better airport connections through co-located gates, reciprocal frequent flier programs and lounge access, coordinated customer-facing technology like mobile ticketing and check-in, and more seamless baggage handling.

Two decades of published research by economists, including the most recent studies, has established that each successive level of integration in an alliance yields greater benefits, including increased frequencies and cities served, more convenient service options, increased interalliance competition, and lower fares.

The Legal and Policy Framework for ATI

The legal predicate for the delivery of these substantial consumer benefits is the DOT’s authority to grant ATI to U.S. air carriers and their foreign partners, allowing them to implement agreements that the DOT concludes are in the public interest. When granted, ATI allows airlines to jointly coordinate and manage key activities, including pricing, scheduling, networks, revenue management, frequent flyer programs, sales, marketing, and other forms of cooperation, without risk of liability under U.S. antitrust laws.

The modern era of immunized airline partnerships began with the signing of the Open Skies Agreement between the United States and the Netherlands. That agreement paved the way for the first ATI application, in 1992, between Northwest Airlines and KLM. The DOT granted the partnership ATI, recognizing the competitive and consumer benefits that the coordinated partnership could provide. Following the grant of ATI, the carriers jointly introduced new flights and
expanded capacity, leading to better service and lower prices for travelers. The success of the Northwest-KLM alliance propelled a wave of open skies agreements, alliances, and ATI grants that have revolutionized the global air transport industry.

**In Questioning ATI, AAI Proposes a Solution in Search of a Problem**

The title of the AAI article “Alliances and Antitrust Immunity: Why Domestic Airline Competition Matters” is incontrovertible—airline competition matters, of course. Unfortunately, the balance of the article lacks a solid empirical foundation. Specifically, the piece relies on rhetorical concerns about the competitive conditions in both domestic and international markets to argue that the “policy surrounding ATI is ripe for reconsideration.”

The article’s criticism misses the mark.

AAI’s assertions are largely unsubstantiated; they rely on speculative theories of consumer harm and rhetoric rather than on empirical research. AAI contends that ATI “raises troubling questions” and that “AIT has a profound impact on competition and consumer welfare in international and domestic markets.”

We agree that ATI has had a profound impact on consumer welfare, but as discussed below, that impact has been overwhelmingly positive. Empirical studies conducted by economists have found that the increased cooperation enabled by immunized JVs leads to lower fares, increased traffic, and enhanced connectivity.

**Empirical Analysis Strongly Supports ATI as a Tool to Drive Network Expansion, Lower Prices, and Enhance Service**

JVs have created enormous benefits for global travelers, including lower prices, new cities served, increased capacity, and more convenient service options. The DOT has documented the extensive benefits antitrust-immunized alliances create for the traveling public:

- “Antitrust immunity is well suited to enable carriers to achieve merger-like efficiencies and deliver benefits that would not otherwise be possible.”
- “Past experience with other integrated and immunized alliances . . . shows that benefits from new direct routes, increased frequencies, greater capacity on hub-to-hub and other routes linking the airlines’ networks, and associated increases in passenger volumes may be expected to develop over time as synergies from the integrated joint venture are facilitated.”

Likewise, two decades of published research confirms these benefits. For example, a 2011 study concluded that greater cooperation among airlines generally resulted in lower fares:

Overall, the results show that airline cooperation reduces the fares for interline passengers below the levels paid by passengers using traditional service, where cooperation is absent. In addition, the results show that incremental increases in cooperation, where codesharing or antitrust immunity is added to basic alliance service, yield incremental reductions in the fare . . . .

The most recent, comprehensive study of international cooperation among airlines in 2017 analyzed passenger, capacity, and fare data over nearly two decades and concluded:

“[M]etal neutral” joint ventures (JVs) lead to substantially larger fare reductions, similar to those associated with online service in which a single carrier serves the entire connecting itinerary. For nonstop passengers we find that the formation of an ATI or JV between two or more airlines serving a route does not generate higher fares. Finally, we find that ATIs and JVs are associated with increased segment traffic and net entry on routes. Our results collectively demonstrate that, on the whole, ATI grants—particularly when coupled with the formation of JVs—have been strongly procompetitive, generating lower fares on connecting routes and increased traffic on segments served by multiple alliance partners, with no associated increase in nonstop fares where partner airlines overlap operations.

Despite the robust benefits generated by ATI-enabled joint cooperation, AAI and other critics claim that immunized airline JVs harm competition. They speculate, generally, that consolidation in the industry coupled with granting ATI to the U.S. network carriers and their foreign partners harms consumers. The relevant practical evidence and related empirical studies demonstrate that this premise is incorrect.

For instance, AAI cites studies, including most notably a study by William Gillespie and Oliver Richard (2012), to support its theory that “cooperation under alliance agreements can enhance incentives to col-lude on price on parallel transatlantic routes, resulting in higher fares unless there are offsetting efficiency gains.” The truth is exactly the opposite. Travelers to Europe, for example, have a range of choices among carriers, including on many new entrants and low-cost carriers (LCCs) such as Norwegian Air Shuttle. The objective data contradicts the claim that fares are higher because of JVs. In fact, the most recent economic analysis of the topic found that international JVs have lowered prices, not raised them.

The Gillespie and Richard study is an outlier that
has been contradicted by numerous empirical studies. For example, Jan Brueckner and Tom Whalen (2000) analyzed DOT data from 1997 and found that alliance fares were 15–18 percent lower than non-alliance fares.¹⁴ Brueckner’s 2003 study, analyzing data from 1999, found that codesharing (without immunity) lowered fares by 8–17 percent, but that codesharing plus immunity lowered fares by 17–30 percent (vis-à-vis traditional interline fares).¹⁵ A subsequent study by Whalen (2007) analyzed panel data for the period 1990–2000 and found substantial fare savings (approximately 20 percent) arising from immunized alliances vis-à-vis nonalliance interline fares, but that codesharing alone only achieved half of those savings (approximately 9 percent).¹⁶ As noted, most recently, Robert Calzaretta et al. (2017) found that international JVs have led to fares on connecting routes that are, on average, approximately 8 percent lower than fares on otherwise similar codeshare or interline itineraries.¹⁷ None of these studies are refuted in the AAI article. Adding to the weight of empirical research supporting the benefits of JVs, a recent study commissioned by the DOT, released in early May 2019, validated the general findings of the 2017 Calzaretta study and related papers, concluding that “alliances are likely to be beneficial on balance” and that “the upside of alliances dominates the downside.”¹¹⁸

Delta’s Immunized JVs Have Delivered Substantial Consumer Benefits

The public benefits generated by Delta and its European alliance partners provide an example of how airline JVs generate substantial consumer benefits through metal neutrality.

SkyTeam JV

The Northwest-KLM JV was the prototype for the alliances that exist today and has long been recognized as enabling far greater expansion of capacity in markets between the United States and Europe than would ever have been commercially feasible in the absence of the connection of the carriers’ complementary networks.

The current Delta-Air France KLM JV has generated similar public benefits. For example, the combined capacity of the JV partners on four of the key trunk routes in the SkyTeam JV (Minneapolis–Paris, Atlanta–Amsterdam, Detroit–Paris, and Atlanta–Paris) more than doubled between 2009 and 2017.¹⁹ Moreover, increased demand following the implementation of the JV enabled the carriers to double the number of daily roundtrips between Atlanta and Amsterdam, from two to four. In addition to expanding capacity on several hub-to-hub routes, the JV has enabled Delta and Air France KLM to initiate new nonstop service on several transatlantic routes to regional cities, including Portland–Amsterdam (2008), Salt Lake City–Paris (2008), Salt Lake City–Amsterdam (2015), and Raleigh/Durham–Paris (2016). Overall, average daily seats from Paris to Delta’s hubs grew by more than 50 percent between 2009 and 2017. In May 2018, Delta began service between Indianapolis and Paris, and the JV partners recently announced new nonstop Delta service from Los Angeles to Paris and Amsterdam.

The addition of capacity on hub-to-hub routes is enabled primarily by the increase in passengers connecting to/from points behind and beyond the hubs of Delta and Air France KLM (see fig. 1), but local passengers traveling on the hub-to-hub routes also benefit greatly from the JV because of the high frequency of service that the partner carriers provide. In many instances, the frequency of nonstop service far exceeds what local demand would otherwise warrant. For example, in 2017, Atlanta–Amsterdam generated an average of only 107 local bookings per day, and Atlanta–Paris generated an average of only 147 local bookings per day.²⁰ Notwithstanding the modest level of local demand, Delta-Air France KLM offers four daily combined roundtrips on each route, with over 1,200 bookings.²¹ Moreover, through coordinated JV planning, the flights are scheduled throughout the afternoon and evening, offering passengers four distinct flight time options and connections.²²

Delta-Virgin Atlantic

The Delta-Virgin Atlantic JV has generated similar substantial public benefits.²³ For example, the JV led Delta and Virgin Atlantic to introduce new nonstop service on 10 transatlantic routes:

- London Heathrow (LHR) to Philadelphia, Portland, Seattle, and Salt Lake City;
- New York John F. Kennedy (JFK) to Manchester, Edinburgh, and Glasgow;
- Boston to Manchester;
- San Francisco to Manchester; and
- Orlando to Belfast.²⁴

As a result of these new flights, combined Delta-Virgin Atlantic seats increased by nearly 12 percent on U.S.–U.K. routes.²⁵ Likewise, the JV allowed Delta and Virgin Atlantic to retime their flights to offer more convenient scheduling. Prior to the JV, a number of the Delta and Virgin Atlantic flights between LHR and JFK left at similar times. Today, during the peak summer season, passengers can choose among eight different flight times on the carriers throughout the day.

Responses to AAI’s Theories on Competition and ATI

Despite the empirical and tangible evidence affirming the consumer benefits of ATI generally, AAI and others continue to challenge the DOT’s framework and process for reviewing applications and express skepticism about the claimed benefits. Provided below is a distillation of AAI’s arguments, followed by replies.
Competition and Consumer Choice

AAI. AAI claims that "U.S. alliance gateways are highly concentrated, limiting choice behind and beyond the gateway," and that "high concentration at [these] alliance gateways means less competition from other carriers and less choice for consumers."26

Response. The U.S. airline industry is fiercely competitive. Airline expansion, new entry, and LCC growth have increased competition. Mergers and restructuring have also helped stabilize the industry, allowing existing airlines to buy new aircraft, update their fleets, and improve airport facilities.27 Overall, consumers have seen improvements in fares, service options, aircraft quality, and product innovation.

During the past 20 years, LCCs and smaller carriers like JetBlue, Southwest, Alaska, Frontier, Allegiant, Hawaiian, Spirit, and Sun Country have expanded greatly. Since 2000, such carriers grew by 120 percent. By 2017, they accounted for nearly half of all domestic passengers.28

The major U.S. network carriers have not prevented the rapid expansion of smaller carriers and LCCs at network carriers’ hub cities. These carriers’ shares of domestic origin and destination (O&D) passengers in “hub” cities like Atlanta, Chicago, Dallas/Ft. Worth, Denver, Los Angeles, New York/Newark, San Francisco, and Washington, D.C., have increased substantially (see fig. 2).29

Fares are near historic lows. In 2018, the average domestic air fare was $350—the lowest inflation-adjusted annual fare in 24 years of air fare records, and 15 percent lower than fares in 2014.30

The combination of low fares, better networks, strong operating performance, and service enhancements has resulted in the highest rates of airline customer satisfaction in two decades.31 The 2018 airline quality score for the nine largest U.S. airlines was the best in the 29-year history of the rating, and the industry's score has improved each year for the past four years. AAI’s unsupported assertion to the "deteriorating quality of air service"32 lacks merit.

Entry Barriers

AAI. AAI asserts that key transatlantic routes are "intensely concentrated, limiting entry by smaller, non-allied carriers."33

Response. The most recent statistics show that competition on transatlantic routes has intensified—not diminished—in recent years. For example, in the five years since the Delta-Virgin Atlantic JV was implemented, LCC and nonaligned carrier seat share on the North Atlantic has grown from 11 percent in 2013 to 19 percent in 2019.34 Indeed, other carriers serving transatlantic routes have steadily increased, with a corresponding reduction in the overall shares of Star, SkyTeam, and oneworld JVs. Collectively, those JVs accounted for 72 percent of the seats between Europe and North America in 2018, almost 8 percent less than the 80 percent they had in 2015. Moreover, the gains have occurred in the context of a substantial increase
in overall supply. For example, between July 2012 and July 2018, the number of overall airline seats on routes between Europe and North America increased by 45 percent.\textsuperscript{35} AAI’s allegations of barriers to entry are not borne out by the facts.

**Investment in Foreign Carriers**

AAI. AAI argues that U.S. carriers are expanding their investments in foreign carriers to "gain control over decisions to enter U.S. markets,"\textsuperscript{36} implying that the rationale for these investments is to reduce competitive expansion in the United States.

**Response.** Delta’s investments in its partner airlines have corresponded with significant growth—not contraction—in their service to U.S. markets. As detailed above, since Delta invested in Virgin Atlantic, it has expanded service to the United States, adding flights and launching new services to both stimulate and meet demand.

**DOT’s Approach to Granting ATI**

AAI. AAI describes the DOT’s historical approach to granting ATI as too “lenient.”\textsuperscript{37}

**Response.** The DOT conducts in-depth reviews of proposed JV agreements and the competitive aviation environments within their scope. The typical DOT review period for ATI applications is now 12–24 months, and often involves multiple evidentiary requests and extensive public discourse involving competing carriers and third parties. Applicants must demonstrate substantial consumer benefits and that there is no substantial reduction in competition.

The DOT actively monitors existing ATI grants and regularly reviews immunized JVs to ensure that the partners are pursuing and achieving the commitments and consumer and competitive benefits promised. Scrutiny has increased over time. Since 2009, for example, the DOT has required all JVs to submit annual reports detailing the status of their immunized cooperation and describing the related consumer benefits.\textsuperscript{38}

**Responses to AAI’s Policy Recommendations**

The AAI piece closes with a list of recommendations for how the DOT should change its oversight of immunized alliances. None of these recommendations has merit when analyzed in context.

**Mandatory “Sunset” Provisions**

AAI. AAI suggests that 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.”\textsuperscript{39}

**Response.** ATI conditions requiring the unwinding of JVs after an arbitrary period of time would be highly disruptive and diminish the beneficial investment incentives that JVs create. Many of the benefits generated by JVs depend upon the ability and willingness of the participants to invest in the future, which

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**Figure 2**

**LCC Growth in Hub Cities**

![Graph showing LCC growth in hub cities from 2000 to 2018.](image)

**Source:** U.S. DOT D818 FYE 2018Q3. **Notes:** LCC/ULCC includes LCCs, ULCCs, and other low-fare carriers. LCCs include Southwest Airlines, AirTran Airways, ATA Airlines, Vanguard Airlines, Sun Country Airlines, JetBlue Airways, and Virgin America. ULCCs include Frontier, Spirit, and Allegiant. Other low-fare carriers include Alaska Airlines, Midway Airlines, Hawaiian Airlines, Pro Air, Accessair, and National Airlines. Airports in major metropolitan areas are grouped: Chicago (ORD, MDW); Dallas (DFW, DAL); Houston (IAH, HOI); Los Angeles (LAX, LGB, BUR); Miami (MIA, FLL); New York (EWR, JFK, LGA); and San Francisco (SFO, OAK).
they have substantially reduced incentive to do if the future is uncertain. The DOT has authority to review its ATI grants at any time, which it exercises rigorously and regularly. The DOT’s existing authority is sufficient to address changes in market conditions.

**Five-Year Term Limit**

*AAI.* AAI asks the DOT to conduct periodic, five-year reviews of grants of ATI. 40

*Response.* Annual review by the DOT already occurs, making this suggestion superfluous. To the extent that it was de novo review, the uncertainty would diminish the incentives of the JV partners to invest, and the related cost and uncertainty would be wasteful.

**Challenge Claimed ATI Benefits**

*AAI.* AAI recommends that the DOT should “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.” 41

*Response.* That analysis is exactly what the DOT does by requiring carriers to demonstrate public benefits. Connectivity has been, and will continue to be, a central focus of the DOT’s public benefits and competition analysis in ATI decisions. AAI has provided no compelling reason for the DOT to doubt the demonstrated consumer benefits of immunized JVs.

**Ease of Entry**

*AAI.* AAI advocates that the DOT should make ease of entry by nonalliance carriers a primary consideration in reviewing existing and prospective grants of ATI. 42

*Response.* New entry is—and always has been—a central tenet of the DOT’s ATI analysis when evaluating a new application, just as open skies has always been an absolute prerequisite to the grant of ATI. But the implication by AAI and other critics that the government should routinely redistribute the network assets of one carrier to another as the price of allowing carriers to build pro-competitive JVs is contrary to free-market principles, and ignores the hard work and investment committed by the JV carriers over many years to build a network attractive to consumers.

**Interalliance Competition**

*AAI.* AAI proposes that the DOT should reject arguments that alliances require ATI because they need to compete in the “alliance market.” 43

*Response.* Global alliances compete fiercely against each other, resulting in better service and lower prices. The empirical evidence demonstrates that the alliances offer substantial benefits to consumers; it makes no sense to suggest that the DOT should not promote competition among them.

**Conclusion**

Overall, the critiques by AAI and other opponents of ATI policy ring hollow. The empirical evidence—reflected both in the economic literature and the real-world experiences of international network carriers—have demonstrated that ATI-enabled JVs have generated and continue to generate substantial consumer benefits. Unless and until there are major changes in the legal framework in which global air carriers operate, these JVs remain the most efficient—and currently only—way for airlines to provide their customers with seamless service throughout the world.

**Endnotes**


2. An alliance is an agreement between two or more airlines designed to link their route networks and coordinate on specified activities, such as marketing and sales, coordination of airport operations, and frequent flyer programs.

3. “ATI” can be misleading, as it could suggest something pejorative. And JVs should be called “virtual mergers” because they allow merger-like activity in light of the restrictions that prohibit foreign ownership of airlines. But, for the sake of consistency, we will continue to use the term “ATI.”

4. Moss, supra note 1, at 12.

5. Id. at 16.


12. Moss, supra note 1, at 13.

13. Calzaretta et al., supra note 9.


U.S.-international airfares using panel data from 1998 to 2009. They found that codesharing reduces fares by approximately 3.6 percent relative to traditional interlining, that alliances reduce fares by an additional 2.7 percent (beyond codesharing), and that immunized JVs reduce fares by an additional 4.9 percent (beyond codesharing and alliances). Moreover, this study also found that “online” fares (i.e., those offered by a single carrier and which immunized JVs attempt to mimic) were less expensive than immunized alliance fares absent a JV. See Brueckner et al., supra note 8.

17. Calzaretta et al., supra note 9.

18. Jan K. Brueckner & Ethan Singer, Pricing by International Airline Alliances: A Retrospective Study Using Supplementary Foreign-Carrier Fare Data 2, 38 (Feb. 2019), http://www.socsci.uci.edu/~jkbrueck/DOT_study.pdf. While this study did observe a nominal effect on certain overlapping, gateway-to-gateway JV routes, the effect was limited to select regions, fare classes, and time periods.

19. It is noteworthy that two of these four routes (Detroit–Paris and Atlanta–Amsterdam) were identified in the Gillespie and Richard study as routes where “[r]ecent grants of antitrust immunity have reduced the number of competitors in trans-Atlantic routes.” See Gillespie & Richard, supra note 11. However, the JV carriers have grown average daily seats relative to pre-recession levels (i.e., 2008) by 6.5 percent between Detroit and Paris and by 131 percent between Atlanta and Amsterdam.

20. Data from Marketing Information Data Tapes (MIDT), 2017 full year.

21. Data from Official Airline Guide (OAG) and Diio.

22. On Wednesday, March 5, 2008 (pre-JV), Delta’s flight from ATL–AMS departed at 17:35 while KLM’s departed at 17:20. On Wednesday, March 7, 2018, the JV’s four ATL–AMS flights departed at 15:55, 17:36, 20:28, and 22:25. Data from OAG.


24. Data from OAG.

25. This calculation compares average daily seats in 2017 and 2012, using OAG data for July of each year.

26. Moss, supra note 1, at 15.

27. For example, Delta has invested more than $7 billion in airport infrastructure projects since 2006, and will be involved in an additional $12 billion worth of projects in the coming years, including improvements at several of its key hubs such as Atlanta, Los Angeles, New York, Salt Lake City, and Seattle. Liz Savadelis, Delta, Los Angeles World Airports Prepare for Construction of $1.86 Billion Delta Sky Way at LAX, Delta News Hub (May 31, 2018), https://news.delta.com/delta-los-angeles-world-airports-prepare-construction-186-billion-delta-sky-way-lax.

28. Data from DOT Airline Origin and Destination Survey (DB1B).

29. Data from DOT DB1B.

30. Annual and Fourth-Quarter 2018 Air Fare Data, BUREAU TRANSP. STAT. (Apr. 16, 2019), https://www.bts.gov/topics/airlines-and-airports/annual-and-fourth-quarter-2018-air-fare-data. The decline in fares holds true even when luggage and change fees are included. Average domestic fares including these fees declined by over 20 percent from 2000 to 2017. Note: Bag and change fees based on carriers’ domestic bag and change fee totals from DOT Form 41 divided by total O&D passengers from DOT DB1B data.


32. Moss, supra note 1, at 1.

33. Id. at 14.

34. Data from OAG.


36. Moss, supra note 1, at 1.

37. Id. at 13.

38. See, e.g., Delta Air Lines, Inc. et al., DOT Order No. 2016-12-13, at 32 (Dec. 14, 2016) (Docket No. DOT-OST-2015-0070) (directing Delta and Aeromexico to submit annual progress reports to the DOT’s Office of Aviation Analysis, beginning one year from the effective date of ATI and continuing each year thereafter).


40. Id.

41. Id.

42. Id.

43. Id.