



The Proposed Merger of US Airways and American Airlines: ***The Rush to Closed Airline Systems***

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Executive Summary

Should US Airways make a bid for American Airlines, currently in bankruptcy proceedings, the deal could present a conundrum for antitrust authorities. The transaction would create the largest domestic airline, reducing the number of legacy mega-carriers to three – Delta Air Lines (Delta), United Continental, and US Airways-American Airlines (US Airways-American). This consolidation would occur against an industry backdrop marked by a dwindling fringe of low-cost carriers (LCCs) and growing questions as to whether legacy look-alike Southwest Airlines-AirTran Airways (Southwest) exerts any significant competitive discipline in the industry. The merger could therefore hasten a troubling metamorphosis of the domestic airline industry from one in which hub airports were designed to accommodate multiple, competing airlines to a few large, closed systems that are virtually impermeable to competition and create a hostile environment in which LCCs and regional airlines have difficulty thriving and expanding.

This White Paper, produced jointly by the American Antitrust Institute (AAI) and Business Travel Coalition (BTC), asks: What competitive issues should be the focus of antitrust investigators in reviewing the proposed merger of US Airways and American? The paper takes the position that a U.S. Department of Justice (DOJ) investigation into the proposed merger of US Airways and American should be informed by mounting

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evidence on the effects of previous airline mergers, namely Delta-Northwest and United-Continental. The White Paper presents a brief analysis of these combinations and highlights a number of preliminary observations that deserve a more in-depth look. These range from the effects of previous mergers on creating costly post-merger integration problems, substantially reducing rivalry on important routes, producing above-average fare increases, and driving traffic to major hubs and away from smaller communities.

The White Paper continues on to evaluate key competitive issues raised by the proposed merger of US Airways and American that deserve some attention in an antitrust investigation. One is the expected outcome – similar to previous legacy mergers – that the proposed combination could eliminate competition on a number of important overlap routes, creating very high levels of concentration and potential harm to consumers. The risk that the proposed merger could adversely affect small communities through reduced levels of, or lower quality, air service is also worth a close look. Another observation is that the merger is unlikely to be one of complementary networks (as might be argued) and could instead create regional strongholds and solidify US Airways-American’s control over key airports. Any arguments that the merger is necessary to create another “equal-size” competitor to the existing Big 3 systems are also not compelling. The analysis concludes by examining the potential effect of the merger on buyer market power and disclosure of information regarding ancillary service fees.

The joint AAI/BTC White Paper offers a number of concluding observations and recommendations. Among them is that our analysis of the US Airways-American merger – coupled with potential warning signs from previous legacy mergers – indicates that there may be enough smoke surrounding the proposed combination to indicate a potential fire. The merging parties therefore bear a heavy burden in demonstrating that their merger would not be harmful to competition and consumers.

I. Introduction

In the last several years, the U.S. airline industry has experienced both long-standing and novel challenges – fuel price volatility, limits to organic growth, pressures to expand globally, and slowing demand for air travel.² Both legacy airlines and LCCs have responded to these developments with bankruptcies, reorganizations, spin-offs, and new pricing strategies. Consolidation among airlines is perhaps the most commonly applied remedy for what persists in ailing the domestic airline industry. There have been six major mergers in recent years: US Airways and America West Airlines (2005), Delta Air Lines and Northwest Airlines (2008), Republic Airlines and Midwest Airlines (2009), Republic Airlines and Frontier Airlines (2009), and United Airlines and Continental Airlines (2010). In 2011, Southwest Airlines and AirTran Airways merged in the first major transaction involving LCCs. All six deals went through, unchallenged by federal antitrust authorities.

In April 2012, US Airways announced a move to take over American Airlines, currently in bankruptcy proceedings.³ The merger would combine the fourth (American) and fifth (US Airways) largest airlines nationally, making US Airways-American the largest U.S. carrier with a combined share of over 20 percent, followed by Southwest with 18 percent, United Continental with 17 percent, and Delta with 16 percent.⁴ The Big 4 would therefore control over 70 percent of the national market. The dwindling stock of LCCs after maverick AirTran was eliminated by Southwest consists of JetBlue, Frontier, and Spirit Airlines.⁵ Not counting the merged Southwest, LCCs shares total less than 10 percent, with modest growth since 2007.⁶

A US Airways-American merger could present a conundrum for U.S. antitrust authorities. One challenge will be to fend off the argument that the merger cannot harm competition and consumers because American – currently in bankruptcy proceedings – would likely fail and exit the market anyway. Another is the claim that the merger is necessary because it would enable a newly merged American to compete with the two existing legacy behemoths, Delta and United Continental, that have been created from

² See, e.g., Severin Borenstein, *Why U.S. Airlines Need to Adapt to a Slow-Growth Future*, BLOOMBERG.COM, June 3, 2012, <http://www.bloomberg.com/news/2012-06-03/why-u-s-airlines-need-to-adapt-to-a-slow-growth-future.html>.

³ US Airways makes move to take over American, CBSNEWS.COM, April 20, 2012, http://www.cbsnews.com/8301-505144_162-57417634/us-airways-makes-move-to-take-over-american/.

⁴ U.S. Department of Transportation, Bureau of Transportation Statistics, *Domestic Market Share: May 2011 – April 2012*, available at <http://www.transtats.bts.gov/>. Shares are measured by revenue passenger-miles.

⁵ Sun Country, Virgin America, and Allegiant also provide some competitive discipline typical of LCCs.

⁶ U.S. Department of Transportation, Bureau of Transportation Statistics, *Carrier Snapshots*, available at <http://www.transtats.bts.gov/carriers.asp>. Data from 2007 and 2012 (as of March 2012) for Frontier and JetBlue (data not reported for Spirit).

previous mergers, as well as the recent Southwest-AirTran combination. Yet another troubling question is whether the proposed merger could even be disallowed if all recent transactions were allowed to go through.

With the number of legacy carriers down to two, plus the legacy look-alike Southwest, the proposed merger would change the landscape of the airline industry in some expected and novel ways. For example, it is clear that – similar to previous mergers – some markets would be dominated by the merged carrier, while others would display the major features of an oligopoly, i.e., few, interdependent sellers. In concentrated oligopoly markets, small fringe competitors such as LCCs and regional carriers are less likely to effectively discipline the pricing of the resulting four powerful systems, *or* they may walk away from the opportunity to gain market share by going along with the higher prices that often accompany diminished competition.

Equally concerning is that the proposed merger could be the capstone event that transforms the industry into a fundamentally different one from what we have known. In the wake of antitrust and aviation policies that have encouraged the formation of fortress hubs, new entry at hub airports is now exceedingly difficult. And the entry that does occur is likely to provide weak, if not ineffective competition. Moreover, secondary airports in major metropolitan areas – heralded as providing competitive discipline for legacy-dominated hubs – do not exist in sufficient numbers to rescue all consumers adversely affected by previous mergers. More important, many secondary airports are themselves becoming dominated by the largest of the former LCCs, Southwest. The result has been the metamorphosis of an industry in which hubs were designed to be open access facilities at which multiple, competing airlines provided service, to only a few mammoth, closed systems that are virtually impermeable to competition and provide a hostile environment in which LCCs and regional airlines have difficulty thriving and expanding.

This White Paper, produced jointly by the AAI and BTC, frames the major competitive issues that should garner attention in an antitrust investigation of the proposed merger of US Airways and American. This analysis is based solely on publicly available information and is informed in part by analysis of previous mergers of legacy airlines, including Delta-Northwest and United-Continental. While we do not make a recommendation as to the legality of the proposed merger, we raise important questions that deserve investigation before a decision is made.

Section II of the White Paper proceeds to examine major features of airline mergers over the last decade. Section III analyzes pre- to post-merger effects of the Delta-Northwest and United-Continental mergers using data on fares and service levels on hub-to-hub routes. Section IV analyzes the proposed US Airways-American merger, including elimination of competition on overlap routes and pricing patterns, and suggests key issues for antitrust review. Section V concludes with observations and recommendations regarding the proposed merger and competition in the U.S. airline industry.

II. Major Themes from Recent Airline Mergers

Airline mergers in the last decade raise a number of recurrent themes and issues, ranging from the implications of acquisitions of bankrupt carriers, the perceived need to expand and reconfigure networks in order to compete globally, and efficiency justifications for consolidation. These factors, among others, are important to consider in an analysis of a US Airways-American merger.

A. Bankruptcy as “Business as Usual” or Imminent Failure of American?

Airline mergers are generally reviewed by the DOJ and the U.S. Department of Transportation (DOT). The DOJ has authority to block a merger even if it is approved by the DOT. The “failing firm” defense under the Department of Justice/Federal Trade Commission (FTC) HORIZONTAL MERGER GUIDELINES (GUIDELINES) provides a safe harbor if “...a merger [is] not likely to enhance market power if imminent failure...of one of the merging firms would cause the assets of that firm to exit the relevant market.”⁷ “Imminent” failure of a firm under the GUIDELINES is defined by specific criteria, including: the inability of a failing firm to meet its financial obligations in the near future or to reorganize successfully in Chapter 11, and a demonstration of good-faith efforts to garner offers that would keep the firm’s assets in the market.⁸

Based on the GUIDELINES’ criteria, it is clear that the failure of American is not imminent, even though American is in bankruptcy. Indeed, there are few examples of major U.S. airlines not emerging successfully from bankruptcy. For example, Trans World Airlines declared bankruptcy on three separate occasions over almost a decade.⁹ The carrier’s final bankruptcy filing in 2001 ended in a merger with American. Similarly, the bankruptcy of America West resulted in a merger with US Airways in 2005, a deal that went unchallenged by the DOJ.¹⁰

Other major carriers have declared and successfully emerged from bankruptcy on numerous occasions.¹¹ This lends some support to the notion that bankruptcy has become something of a “business as usual” condition unique to the highly cyclical airline industry whereby the firm remains a viable economic entity. What features of airlines make it more probable that they will emerge from bankruptcy? Among the factors that could

⁷ U.S. DEPARTMENT OF JUSTICE AND FEDERAL TRADE COMMISSION, HORIZONTAL MERGER GUIDELINES (GUIDELINES), §11 (August 2010), *available* <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>.

⁸ *Id.*

⁹ History of Airline Bankruptcies, FOXBUSINESS.COM, November 29, 2011, <http://www.foxbusiness.com/travel/2011/11/29/history-us-airline-bankruptcies/>.

¹⁰ Keith L. Alexander, *US Airways To Merge, Move Base To Arizona*, WASHINGTONPOST.COM, May 20, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/05/19/AR2005051901972.html>.

¹¹ Historically, some smaller carriers that have declared bankruptcy have not emerged successfully.

account for successful emergence are: valuable assets in aircraft, landing and takeoff slots, and highly specialized and experienced personnel. While this White Paper does not explore American's financial future, and assumes its eventual emergence from Chapter 11, it is nonetheless a key issue in evaluating the US Airways-American transaction.

Aside from the fundamental question of whether airlines are viable candidates for the failing firm defense in merger cases, there may be incentive issues that put antitrust law at odds with bankruptcy law. For example, the obligation to look for the *least* anticompetitive buyer under the failing firm defense conflicts rather diametrically with bankruptcy law, where the court's objective is to protect creditors. Indeed, in many bankruptcy situations, the most anticompetitive buyer is likely to be the high bidder with deep pockets and substantial market power, with the greatest potential for achieving monopoly rents through the exercise of such market power. This, combined with a fore-shortened waiting period as compared with antitrust's premerger notification process, creates a forum-shopping incentive, such that some firms see bankruptcy as a means to accomplish an anticompetitive merger. It is interesting to note that recent reports indicate that US Airways wants to complete its acquisition before American exits bankruptcy, while American's CEO has strong personal financial incentives to bring his company out of bankruptcy as an independent firm.¹²

In light of the foregoing concerns, the failing firm defense for airline mergers should be viewed with some skepticism. It is important to note that the DOJ is not precluded from later challenging an anticompetitive acquisition that was approved by the bankruptcy court, although judicial efficiency would be enhanced if such a challenge could be made prior to the bankruptcy sale's completion. While a merger has been attacked in federal court outside of a simultaneous bankruptcy proceeding, we have not found an example of a bankruptcy sale later being challenged. This is not to suggest that bankruptcy courts do not recognize the potential antitrust consequences of a bid for assets or firms in bankruptcy, which seems to imply that they are aware that a sale can be unwound even after approval.¹³ Consistent with this, the antitrust agencies seem to avoid appearing in bankruptcy court to contest a sale, preferring to preserve their opportunity to proceed outside of bankruptcy.¹⁴ If DOJ decides to challenge the US Airways-American transaction, it can do so via the injunction route in federal court, notwithstanding American's bankruptcy proceeding.

¹² Andrew Ross Sorkin, *American Airlines and US Airways Dance Around a Merger*, NYTIMES.COM, July 9, 2012, <http://dealbook.nytimes.com/2012/07/09/american-and-us-airways-dance-around-a-merger/>.

¹³ See, e.g., *In re* Financial News Network, Inc., 126 B.R. 152 (S.D.N.Y. 1991).

¹⁴ Thus, in the Comdisco case, the bankruptcy court stayed the sale proceeding pending the resolution on the preliminary injunction motion in a concurrent district court challenge. See *In re* Comdisco Inc., (Bankr. D.D.C. 2001) (Sungard/Comdisco merger).

B. Too Big for Cost Savings?

Claimed efficiencies from airline mergers can be a powerful defense for an otherwise anticompetitive merger. After a six-month investigation into the Delta-Northwest transaction, for example, the DOJ concluded that the merger “is likely to produce substantial and credible efficiencies that will benefit U.S. consumers and is not likely to substantially lessen competition.”¹⁵ The agency counted as efficiencies those relating to cost savings in airport operations, information technology, supply chain economics, fleet optimization, and service improvements related to combining complementary networks.

Merger-related cost savings are a controversial subject. The economic literature has hosted an ongoing debate over issues relating to the tension between network size versus economies of scale and density, and efficiencies versus market power effects. This includes empirical economic work showing that efficiencies dwindle as networks increase in size and the effects of increased “hubbing” on congestion and costs.¹⁶ As mergers become larger, the bar is raised on carriers to demonstrate to the DOJ that claimed efficiencies are substantial enough to overcome correspondingly large anticompetitive effects.¹⁷

An increasingly important factor in the efficiencies debate is post-merger integration. It is now clear that integration of major airlines presents major hurdles. Protracted and unwieldy system integration scenarios can impose costs on the merged company that are passed on to customers in the form of inconvenience, flight delays, and even litigation involving contested issues. For example, US Airways-America West, Delta-Northwest, and United-Continental all experienced system integration problems,¹⁸ ranging from

¹⁵ U.S. Department of Justice, Statement of the Department of Justice's Antitrust Division on its Decision to Close its Investigation of the Merger of Delta Air Lines Inc. and Northwest Airlines Corporation, October 29, 2008, *available at* http://www.justice.gov/atr/public/press_releases/2008/238849.htm.

¹⁶ *See, e.g.*, David Gillen, et al., *Airlines Cost Structure and Policy Implications*, 24 J. TRANSP. ECON. AND POL'Y 9 (1990); Michael Creel and Montserrat Farrell, *Economies of Scale in the US Airline Industry After Deregulation: a Fourier Series Approximation*, 37 TRANSP. RES. PART E 321, 332 (2001); W. M. Swan, *Airline Route Developments: A Review of History*, 8 J. AIR TRANSP. MGMT. 349 (2002). *See also* Subal C. Kumbhakar, *A Reexamination of Returns to Scale, Density and Technical Progress in U.S. Airlines*, 57 S. ECON. J. 428, 439 (1990) and Leonardo J. Basso and Sergio R. Jara-Diaz, *Distinguishing Multiproduct Economies of Scale from Economies of Density on a Fixed-Size Transport Network*, 6 NETWORK & SPATIAL ECON. 149 (2006). Regarding the balance of market power and efficiencies effects, *see e.g.*, E. Han Kim and Vijay Singal, *Mergers and Market Power: Evidence from the Airline Industry*, 83 AM. ECON. REV. 549 (1993).

¹⁷ Perhaps the best example of the imperative for merging parties to show significant efficiencies in the presence of high market concentration is *Federal Trade Commission v. H.J. Heinz Co.*, 246 F.3d 708 (D.C. Cir. 2001).

¹⁸ *See, e.g.*, Smisek Apologizes For United's Technological, Operational Missteps, THEBEAT.TRAVEL, July 26, 2012, <http://www.thebeat.travel/post/2012/07/26/Smisek-Apologizes-United-Missteps.aspx>; Massive Integration Issues Continue to Affect United, PREMIERTRAVELSERVICES.COM, April 13, 2012, <http://premiertravelservices.blogspot.com/2012/04/massive-integration-issues-continue-to.html>; Jim Glab, *United: Systems integration still causing some delays, problems*, EXECUTIVETRAVELMAGAZINE.COM, April

integrating computer systems, combining frequent flier programs, meshing work forces (particularly unionized employees), to problems with “cockpit standardization.” Indeed, at the time of this writing, US Airways still has not produced a single pilot seniority list following its merger with America West in 2005.¹⁹

Based on accumulating evidence that post-merger integration problems are significant, there is a case to be made that future airline mergers could follow suit. Moreover, the costs associated with integration are probably underestimated when the merger is proposed and can skew an analysis of efficiencies benefits. One way to correct for this is for antitrust enforcers to discount the magnitude of claimed efficiencies at the time of merger review. This is an especially important consideration in light of the GUIDELINES inherent balancing of anticompetitive effects against claimed efficiencies.

Advocates of airline mergers will undoubtedly cite recent improved financial performance as evidence that mergers have proved up the cost savings. Before such claims are accepted, however, it is important to note that high profits may indicate any number of developments. One is that carriers have in fact realized claimed efficiencies. Alternatively, higher profits may be the result of higher fares achieved through the exercise of market power. A thorough post-mortem analysis of airline efficiencies that disaggregates these, and other potential merger-related reasons for higher post-merger profits, is badly needed. Such an analysis would also account for how successive airline mergers increase the probability that the merged carrier can externalize integration problems to captive customers without facing the threat of lost market share from defections to a dwindling number of rivals.

C. What Mergers are Unlikely to Raise Antitrust Enforcement Obstacles?

One of the few examples of a merger that failed to obtain antitrust clearance is United-US Airways (2000-2001). In that case, the DOJ’s major concerns centered on loss of choice, potentially higher fares, and lower quality of service. The merger would have yielded a monopoly or duopoly on nonstop service on over 30 routes and “solidify[ed] control” by the merging airlines over major connecting hubs for east coast traffic.²⁰ The DOJ rejected

27, 2012, <http://www.executivetravelmagazine.com/blogs/air-travel-news/2012/4/27/united-systems-integration-still-causing-somedelays-problems>; United exec: Airline halfway through integration with Continental, BIZJOURNALS.COM, March 13, 2012, <http://www.bizjournals.com/denver/news/2012/03/13/united-exec-airline-halfway-through.html>; United Airlines Faces Delays After Systems Merger: IT difficulties cause kiosk malfunction, traveler setbacks, INVESTORPLACE.COM, March 5, 2012, <http://www.investorplace.com/2012/03/united-airlines-faces-delays-after-systems-merger/>; Linda Rosencrance, *No Smooth Takeoff for US Airways IT Conversion: Integration of reservation systems with America West blamed for delays*, COMPUTERWORLD.COM, April 2, 2007, http://www.computerworld.com/s/article/287874/No_Smooth_Takeoff_for_US_Airways_IT_Conversion; and Jad Mouawad, *Delta-Northwest Merger’s Long and Complex Path*, NYTIMES.COM, May 18, 2011, <http://www.nytimes.com/2011/05/19/business/19air.html?pagewanted=all>.

¹⁹ Terry Maxon, *American Airlines-US Airways Merger: Questions and Answers*, DALLASNEWS.COM, April 20, 2012, <http://aviationblog.dallasnews.com/2012/04/american-airlines-us-airways-m.html>.

²⁰ U.S. Department of Justice, *Department of Justice and Several States Will Sue to Stop United Airlines*

a proposed remedy by the parties, including a divestiture of assets at Washington D.C. Reagan National airport and a promise by American to fly five of the routes that would be adversely affected by the merger.

With few challenged airline mergers to evaluate, industry analysts and observers often opine on the legality of airline mergers based on fact patterns across mergers that antitrust enforcers *did not* attempt to block. For example, both Delta-Northwest and United-Continental involved multiple overlap routes, many of which involved 2-1 and 3-2 routes. Yet in contrast to United-US Airways, both deals went through, raising the question: How many overlap routes on which competition is substantially lessened should be enough to raise antitrust enforcement eyebrows? Given the fact pattern surrounding overlap routes in unchallenged mergers, one could deduce that the DOJ will look past problematic overlap routes if there is a modicum of rivalry from LCCs and legacies and the affected airports are not slot-constrained. As noted earlier, an efficiencies defense also appears to carry significant weight.

III. Lessons from the Delta-Northwest and United-Continental Mergers

There are a limited number of economic studies of airline mergers that examine post-merger price, output, and quality measures to determine if mergers are largely pro-competitive or anticompetitive. Increasingly, antitrust enforcement emphasizes the value of direct evidence of anticompetitive effects – including natural experiments and analysis of consummated mergers – in guiding future enforcement decision-making.²¹ Both tools attempt to make the most use of actual, relevant events in evaluating prospective mergers, including evidence of adverse effects (e.g., post-merger price increases) and entry and exit, particularly in markets similar to those affected by a proposed transaction.

The proposed US Airways-American transaction presents a unique opportunity for the DOJ to analyze evidence on previous airline mergers. Indeed, it would be poor competition policy to undertake an antitrust analysis of the proposed merger without evaluating the effects of prior airline mergers. The analysis in this section frames the question of how consumers have likely fared after Delta-Northwest and United-Continental with a simple assessment of pre- to post-merger changes in fares and service measures on hub-to-hub routes.

The analysis performed here does not purport to determine what variables (including merger-related factors such as increased concentration) potentially explain pre- to post-merger changes in fares, service, or other variables. Moreover, there are data sources used in antitrust analysis of airline mergers other than the ones used here. Additional data and economic modeling and estimation is necessary for a comprehensive analysis of past mergers – a task that could be better conducted by the DOJ, with its access to proprietary

from Acquiring US Airways: Deal Would Result in Higher Air Fares for Businesses and Millions of Consumers, July 27, 2001, <http://www.justice.gov/opa/pr/2001/July/361at.htm>.

²¹ GUIDELINES, *supra* note 7, at §11.

information, including carriers' strategic planning documents.

A. Pre- to Post-Merger Changes in Fares and Service

The Delta-Northwest merger involves seven hubs – Atlanta (ATL), Cincinnati (CVG), Detroit (DTW), Minneapolis-St. Paul (MSP), Memphis (MEM), Salt Lake City (SLC), and New York John F. Kennedy (JFK). Ten routes involving these airports substantially eliminated one of the merging parties at the time the merger was proposed.²² The United-Continental merger involves eight hubs: Cleveland (CLE), Denver (DEN), Newark (EWR), Dulles (IAD), Houston (IAH), Los Angeles (LAX), Chicago (ORD), and San Francisco (SFO). Eleven routes involving these airports substantially eliminated one of the merging parties at the time the merger was proposed.

The upper half of Table 1 shows percentage changes in real fares and increases/decreases in service for the 10 hub-to-hub routes affected by the Delta-Northwest merger over the time period bounded by one year prior to the merger (2007) and the most recent data available (2011).²³ The lower half of the table shows the same statistics for the 11 hub-to-hub routes over a time period bounded by one year prior to the United-Continental merger (2009) and the most recent data available (2011). Routes indicated by an asterisk are those for which fare increases are higher than the average for all flights at the origin airport. Delta-Northwest routes involving CVG as an origin or destination are not reported because post-merger cutbacks involving the airport are substantial.

²² In a 2008 White Paper, the AAI examined concentration in airport-pair markets potentially most affected by the proposed Delta-Northwest merger, noting that changes in market concentration on many of those routes were significant and exceeded the GUIDELINES' thresholds. See American Antitrust Institute, *The Merger of Delta Airlines and Northwest Airlines: An Antitrust White Paper* (July 2008), available at http://www.antitrustinstitute.org/files/AAIWhite%20Paper_Delta_NW_071020081922.pdf.

²³ Service on hub-to-hub routes can be nonstop or connecting. Service changes are measured by both seat availability and flight frequency.

**Table 1:
Pre- to Post-Merger Percent Changes in Fares and Directional Changes in Service
on Delta-Northwest and United-Continental Hub-to-Hub Routes²⁴**

Percent Change in Fare	Decrease in Service	Increase in Service
Delta-Northwest (2007 – 2011)		
20 – 29		ATL-DTW* (4-2) DTW-ATL* (4-4)
10 – 19	DTW-JFK* (2-1)	MSP-ATL* (>4-2) ATL-MSP* (4-2)
0 – 9	-	SLC-DTW* (3-1) MEM-ATL (4-2) ATL-MEM* (4-2)
0 – (15)	-	SLC-MSP (3-2) MSP-SLC (3-2)
United-Continental (2009 – 2011)		
30 - 39	SFO-EWR* (4-1)	ORD-IAH* (4-2) IAH-ORD* (>4-3) EWR-SFO* (3-1)
20 - 29	DEN-EWR* (4-2) EWR-ORD*(3-2) EWR-DEN* (3-2)	DEN-IAH* (>4-2) IAH-DEN* (4-2)
10 - 19		IAH-SFO (2-1) SFO-IAH* (2-1)
*Indicates fare increases greater than the average for all flights at the origin airport. Average fare increases at the following Delta-Northwest hub airports between 2007 and 2011 are: ATL (-5%), DTW (14%), JFK (5%), MEM (12%), MSP (4%), and SLC (1%). Average fare increases at the following United-Continental airports between 2009 and 2011 are: CLE (20%), DEN (7%), EWR (16%), IAH (19%), ORD (10%), and SFO (14%). Negative fare changes are indicated in parentheses in the first column. The number of carriers on the route pre- and post-merger is indicated in parentheses next to each route.		

B. Analysis

The analysis of pre- to post-merger fare and service changes on 21 total hub-to-hub routes involving the Delta-Northwest and United-Continental mergers reveals several important observations.

²⁴ Service measures are based on annual data from 2007 and 2011. See U.S. Department of Transportation, Bureau of Transportation Statistics, *T-100 Domestic Segment: U.S. Carriers*, available at http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=259&DB_Short_Name=Air%20Carriers. Fare information for 2007, 2009, and 2011 obtained from U.S. Department of Transportation, Bureau of Transportation Statistics, *Origin and Destination Survey: DB1B Market*, available at http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=247&DB_Short_Name=Origin%20and%20Destination%20Survey. Average fares at the origin airport for 2007, 2009, and 2011 obtained from U.S. Department of Transportation, Bureau of Transportation Statistics, *Average Domestic Airline Itinerary Fares By Origin City*, available at <http://www.transtats.bts.gov/AverageFare/>.

1. Reduction in Competition is Substantial

Both mergers substantially eliminated competition on hub-to-hub routes. The mergers together produced three monopoly routes and four duopoly routes – accounting collectively for over 30 percent of the total 21 routes – and more than doubling the number of routes on which there was limited competition (e.g., two or fewer carriers) before the merger.

Changes in market structure pre- to post-merger, however, are not limited to the direct elimination of a competitor. Several routes experienced the exit of non-merging rivals such as LCCs and regional airlines after the mergers. Some entry occurred (e.g., legacy and LCC) on a few routes, but it was on a very limited scale. Monopolies and duopolies resulting from post-merger shake-ups on the routes affected by Delta-Northwest and United-Continental therefore account for over 50 percent of total routes. This observation lends some support to the notion that mergers that enhance the carriers' dominance at a hub also dissuade incumbent carriers from remaining in the market. If this were true, then such routes would also be unlikely to attract entry.

2. Fare Increases are Above Average

A fare level analysis alone does not tell the entire story about post-merger prices. Ancillary fees (e.g., baggage, food, etc.) have exploded over the timeframe covered by our analysis of Delta-Northwest and United-Continental and fuel surcharges have been left in place even as oil prices have fallen. A more detailed, conclusive analysis therefore would require access to information on “all-in” fares. Nonetheless, a number of general observations are important. For example, based on our analysis, there appear to be a large number of substantial pre-to post-merger fare increases on the hub-to-hub overlap routes affected by the Delta-Northwest and United-Continental mergers. Fare increases are above average at the origin airport on 70 percent of routes affected by the Delta-Northwest merger.²⁵ The same is true of over 90 percent of routes affected by the United-Continental merger. Fare increases on United-Continental routes tend to be higher than on Delta-Northwest routes.

One half of the Delta-Northwest routes show fare increases exceeding 10 percent over the pre- to post-merger period, two of which exceed 20 percent. The other five routes show lower fare increases or fare decreases. All of the United-Continental flights show fare increases. Fare increases on nine of the 11 routes evaluated are above 20 percent, four of which exceed 30 percent. Many factors can potentially explain fare increases – inflationary pressure, rising input costs (e.g., labor and fuel), and higher demand for service on a particular route – all of which deserve further scrutiny. Such an analysis would need to consider that: (1) if fuel cost increases are responsible for higher fares over the periods examined, they would be likely to more uniformly affect all fares (and thus be reflected in average fares); and (2) if anything, demand for air travel has declined, not

²⁵ Note that average fares for routes at the origin airport are for general comparison purposes only.

increased, over the periods in question.²⁶

Fare increases can also reflect the exercise of market power enhanced through the merger. For example, restricting seats and flight frequency could have the effect of raising fares. For flights for which demand is relatively inelastic (i.e., quantity demanded is relatively insensitive to price changes), however, a very small decrease in service may suffice to enable a fare increase. Higher fares may also reflect the fact that prior to the merger, the merging carriers were each other's largest rival. Under such circumstances, a price increase by one carrier could divert substantial sales to the merging partner, creating upward pricing pressure and increasing the probability of post-merger price increases.²⁷ Regardless of the underlying theory, observed fare increases could reveal the dominance of the merged carriers at hubs that serve as the origination or destination for routes and over which they can exercise market power.²⁸

3. Merged Carriers Appear to Drive Traffic to Large Hubs

Over 75 percent of hub-to-hub routes affected by the Delta-Northwest and United-Continental mergers show service increases. The majority of these routes also display fare increases. There are nine Delta-Northwest routes and seven United-Continental routes in this category. The remaining roughly 25 percent of routes show service decreases, only one of which is a Delta-Northwest route, and all of which show fare increases. Overall, only 10 percent of the affected routes involved in the Delta-Northwest merger saw service decreases, as compared to over 35 percent in United-Continental.

There are a number of possible reasons behind service decreases. The first is that service cuts (in terms of both flights and seats) reflect output restrictions designed to hike fares.²⁹ A second scenario is that cuts in flight frequency – if accompanied by significant increases in load factor – may reflect efforts to eliminate excess capacity on pre-merger routes by better matching aircraft to routes. None of the routes with service decreases, however, exhibit changes in load factor from the pre-merger to post-merger period. Finally, service cuts may reflect efforts to trim service on less profitable routes and/or

²⁶ Between 2007 and 2011, for example, total passengers emplaned at domestic airports decreased by almost 7 percent. See U.S. Department of Transportation, Bureau of Transportation Statistics, *T-100 Domestic Market: U.S. Carriers*, available at http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=258&DB_Short_Name=Air%20Carriers.

²⁷ See GUIDELINES, *supra* note 7 at §6.1 and §6.3.

²⁸ The first scenario involves the classic “withholding” strategy in industries where firms are differentiated largely by capacity. “Upward pricing pressure” involves firms that sell differentiated products. Both are included here for illustrative purposes.

²⁹ The GUIDELINES emphasize both shorter-term output restrictions and longer-term capacity reductions as possible post-merger effects. The first type of quantity-related effect occurs in the near term, whereby the firm restricts output, as measured by flight frequency and available seats. The second type of capacity effect is longer-term, whereby firms reduce or slow additions (e.g., new airplane orders) to keep capacity tight and therefore prices high. See GUIDELINES, *supra* note 7, at §2.2.1.

shift traffic to better-situated hubs for domestic and international connections.³⁰

Service increases may reflect an attempt by the merged carriers to drive traffic to major hubs to feed their international operations. Indeed, several of the 21 routes are among the largest city-pair markets in the U.S.³¹ Not surprisingly, the airports most involved in service increases are fortress hubs such as Delta-Northwest's ATL and MSP, and United-Continental's IAH. An increasingly symbiotic relationship between domestic U.S. consolidation and global antitrust immunized alliances drives this effect. U.S. mega-carriers have now committed to the global alliance model as a proxy for cross-border mergers to more efficiently reach distant markets. Likewise, the financial success of the alliances is more and more dependent upon flowing high-yield passenger traffic through U.S. gateway airports.

4. The Mergers May Have Harmed Smaller Communities

Some airline mergers result in cutbacks in service at smaller hubs or focus cities. A major outcome of the Delta-Northwest merger was the elimination of Cincinnati as a Delta hub.³² In the four years spanning 2007 to 2011, departures at Cincinnati declined, on average, by almost 40 percent.³³ Backlash to this well-publicized event, which became apparent not long after the merger was consummated, is best illustrated by the state of Ohio's efforts to prevent a similar outcome at Cleveland in the United-Continental merger.

There are numerous other examples of post-merger hub cutbacks. Between 2001 and 2009, American cut flights at TWA's former hub Lambert-St. Louis airport by 85 percent.³⁴ According to some sources, these cutbacks were accomplished by increasing the number of regional flights and shifting service to Chicago and Dallas. Similarly, between 2005 and 2009, the merged US Airways-America West reduced flights at Las Vegas by 50 percent.³⁵ Once enough data are available, it will be important to understand how Southwest is adjusting capacity after their 2011 merger.

³⁰ The United-Continental hub most involved in service cuts is EWR.

³¹ U.S. Department of Transportation, Office of Aviation Analysis, *Domestic Airline Fares Consumer Report*, Table 1, 4th Quarter 2011, available at http://ostpxweb.dot.gov/aviation/x-50%20Role_files/consumerairfarereport.htm.

³² CVG is one of seven hubs at which both Delta and Northwest (at the time of the merger), offered limited (if any) hub-to-hub service.

³³ *T-100 Domestic Segment: U.S. Carriers*, *supra* note 24.

³⁴ American Antitrust Institute, *Competition at a Crossroads: The Proposed Merger of Southwest Airlines and Air Tran 20* (December 2010), available at <http://www.antitrustinstitute.org/~antitrust/sites/default/files/SouthwestAirTran%20White%20Paper.pdf>.

³⁵ Bill McGee, *When Airlines Merge, Consumers Usually Loose*, USATODAY.COM, April 29, 2010, http://www.usatoday.com/travel/columnist/mcgee/2010-04-28-airline-mergers_N.htm.

It is worthwhile noting that while our analysis does not include smaller airports, a highly probable result of capacity adjustments at hubs is the degradation of service to smaller communities, which includes small and medium-size cities. Moreover, empirical work supports the notion that consolidation leads to consumer welfare losses involving small airports, with evidence from the Delta-Northwest merger.³⁶

IV. Analysis of a US Airways-American Merger

We evaluated the proposed merger of US Airways and American with three types of analysis. The first is an airport-pair analysis of routes where both carriers offer service and the merger would eliminate a competitor. A second potentially useful analysis is how the carriers have historically tended to price relative to each other, and to other rivals. This analysis may provide some insight into the competitive dynamics in the markets that could be affected by the proposed merger. Finally, given our observations about previous mergers, it is important to consider potential efficiencies. Each of these issues is examined in the following sections, followed by a summary of major implications.

A. Airport-Pair Analysis of Market Concentration

The effect of the proposed merger on city-pair and/or airport-pair routes where American and US Airways overlap is likely to be the focus of an antitrust evaluation. There are 22 routes that appear potentially to be the most affected by the proposed merger, i.e., where the merger would eliminate one of the merging carriers and result in a substantial loss of competition. These routes involve US Airways and American hubs or focus city airports, including: Charlotte (CLT), Miami (MIA), Los Angeles (LAX), Philadelphia (PHL), Phoenix (PHX), Dallas-Ft. Worth (DFW), Chicago O'Hare (ORD), and Washington Reagan National (DCA), and New York La Guardia (LGA).³⁷ Results of the analysis are shown in Table 2.

³⁶ See, e.g., Volodymyr Bilotkach and Paulos Ashebir Lakew, *On Sources of Market Power in the Airline Industry: Panel Data Evidence from the US Airports* (February 2012), available at https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=IIOC2012&paper_id=205. The authors show welfare losses in over 30 small airports resulting from the Delta-Northwest merger.

³⁷ Service on hub-to-hub routes can be nonstop or connecting. JFK is an American hub but there are no apparent overlaps with US Airways on routes originating there.

**Table 2:
Pre- to Post-Merger Changes in Market Concentration on Major Routes
Resulting from the Proposed US Airways – American Merger³⁸**

Post-Merger HHI	Pre- to Post-Merger Change in HHI			
	500-1,999	2,000-2,999	3,000-3,999	4,000-4,999
3,000 - 3,999	PHX-LAX LAX-PHX			
4,000 - 4,999	DCA-ORF			
5,000 - 5,999				
6,000 - 6,999		PHX-ORD ORD-PHX PHL-ORD ORD-PHL		
7,000 -7,999				
8,000 - 8,999	LGA-CLT CLT-LGA	CLT-ORD ORD-CLT		
9,000 - 9,999		CLT-MIA	MIA-CLT	PHL-MIA MIA-PHL PHL-DFW DCA-BNA DFW-PHL
10,000				CLT-DFW PHX-DFW DFW-CLT DFW-PHX

Table 2 is best interpreted in several major sections. The lower half of the table shows 11 markets where the merger would essentially eliminate all competition. For example, in four markets involving hub-to-hub routes, the transaction would result in a monopoly. In seven additional airport-pair markets, post-merger concentration is in excess of 9,000 HHI, with large changes in HHI, many of which are higher than 4,000 points.

The middle of the table shows eight hub-to-hub markets where post-merger concentration is in the range of 6,000 to 8,999, with changes in the range of 500 to 2,999 HHI points. Finally, the upper portion of the table indicates shows three markets that would experience lower levels of merger-induced changes in concentration (500-1,999 HHI) and post-merger concentration (3,000-4,999 HHI). In all 22 cases, changes in market concentration and post-merger concentration exceed the thresholds specified in the GUIDELINES and would be presumed to lead to adverse competitive effects, including increases in fares, reduction in service, and loss of choice.³⁹

³⁸ Service measures are based on data from 2012. See U.S. Department of Transportation, Bureau of Transportation Statistics, *T-100 Domestic Segment: U.S. Carriers*, available at http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=259&DB_Short_Name=Air%20Carriers.

³⁹ The Guidelines state that markets for which post-merger concentration is less than 1,500 HHI are “unconcentrated” and mergers in such markets are unlikely to have adverse competitive effects. Markets for which post-merger concentration is between 1,500 and 2,500 HHI are “moderately concentrated” and mergers that induce changes in HHI greater than 100 points potentially raise significant competitive

B. Price Comparisons of High and Low Fares on Top Routes

In AAI's 2010 White Paper *Competition at a Crossroads: The Proposed Merger of Southwest Airlines and AirTran Airways*, pricing data provided valuable insight into how the two carriers competed, relative to one another, and other rivals in the market.⁴⁰ Price comparisons revealed that AirTran was an aggressive discounter relative to Southwest, lending support to the notion that the proposed merger would eliminate a “maverick” in the market. Given that American Airlines and US Airways are legacy carriers, we might expect price analysis to indicate a very different pattern. We looked at routes on which US Airways and American are the high fare and low fare carriers on top airport-pair routes.⁴¹ It is important to note that the high/low fare data does not show the total number of rivals or their fares on top routes. Nonetheless, the data reveal potentially useful observations.

Of the total number of top routes reported, about 40 percent involve US Airways and American as high and/or low fare carriers. On 44 percent of routes involving the merging carriers, either American is *both* the high fare and low fare carrier or US Airways is *both* the high fare and low fare carrier. On these routes there is therefore no difference between the high and low fares.⁴² The pricing data also indicate that the merging carriers are infrequently in situations where they aggressively undercut each other.⁴³ For example, American is high fare on only 2 percent of routes when US Airways is low fare and US Airways is high fare on 10 percent of routes when American is low fare.

These comparisons reinforce the obvious conclusion that American and US Airways are dominant players in the industry. But further observations are possible. For example, the fact that each carrier offers both the high and low fare on a sizable proportion of routes might reflect limited competition on those routes and thus the ability of each carrier to set prices. Given this pattern of high pricing, reinforced by evidence that the airlines rarely undercut each other, we could expect that on routes where the merging carriers *do* compete, they are more likely to be each other's biggest rivals, which is what we found in

concerns. Markets for which post-merger concentration is greater than 2,500 HHI are “highly concentrated” and mergers that induce changes in HHI of 100 to 200 points potentially raise significant competitive concerns. Mergers that increase concentration by more than 200 HHI points in highly concentrated markets are presumed to be likely to enhance market power. See GUIDELINES, *supra* note 7, at §5.3.

⁴⁰ *Supra* note 34.

⁴¹ U.S. Department of Transportation, Office of Aviation Analysis, *Domestic Airline Fares Consumer Report*, Table 1a, 4th quarter 2011, available at http://ostpxweb.dot.gov/aviation/X-50%20Role_files/consumerairfarereport.htm.

⁴² American is both the high and low fare carrier on 21 percent of the routes and US Airways is both high fare and low fare on 23 percent of the routes.

⁴³ On average, U.S. Airway's low fare is a 13 percent discount off American's high fare but American's high fare is a 19 percent discount off U.S. Airway's high fare.

the overlap analysis in the previous section. This lends support to the possibility that a price increase by one carrier could divert substantial sales to the merging partner, creating upward pricing pressure and increasing the probability of post-merger price increases.⁴⁴

C. Efficiencies

Many of the promised cost savings from airline mergers come from fleet optimization, such as right-sizing aircraft to routes to eliminate excess capacity, reduce costs, and increase efficiency; and service enhancements from merging complementary networks. While US Airways and American have not yet proposed how a merger would create benefits in both the short and long run, it is still worth noting several implications based on past mergers and the fact pattern surrounding the two legacy networks.

A combined US Airways-American fleet would consist of a variety of aircraft manufactured by Boeing, McDonnell Douglas, AirBus, and Embraer.⁴⁵ Almost 50 percent of the combined fleet would exhibit overlaps in the same types of Boeing aircraft.⁴⁶ Thus, while some post-merger adjustments in aircraft-to-route configurations might be possible, they may not be significant, unless US Airways and American plan on significant capacity retirements and bringing newer aircraft with different capacity profiles into service in the near future. Moreover, if the merging carriers are not currently individually optimizing their fleets, the burden should be on them – if the carriers plan to introduce this aspect of an efficiency defense – to show why they could not optimize their fleets without the merger.

Another key issue potentially raised by an efficiencies defense is distinguishing capacity adjustments that present opportunities to actually reduce costs from those that simply increase prices or harm some classes of consumers (e.g., smaller communities). On routes where there are load factor differences between US Airways and American flights, the merged carrier might implement cost-reducing adjustments involving aircraft and service frequency. However, as the analysis of Delta-Northwest and United-Continental makes clear, post-merger capacity adjustments can have a range of positive and negative effects that may be extraordinarily difficult to disaggregate and categorize as costs or benefits at the time a merger is reviewed. Even if efficiency-enhancing capacity reductions are possible to identify and isolate, it remains the burden of the merging parties to show how their merger is necessary to achieve such capacity reductions, as opposed to each carrier accomplishing such adjustments individually.

⁴⁴ The average discount off American high fares is 19 percent, 27 percent for LCCs, and only 12 percent for Southwest. The average discount off US Airways fares is 17 percent, 22 percent for LCCs, and only 15 percent for Southwest.

⁴⁵ Our Aircraft, AA.COM, <http://www.aa.com/i18n/aboutUs/ourPlanes/ourPlanes.jsp>. US Airways *Fleet*, <http://www.usairways.com/en-US/aboutus/pressroom/fleet.html>.

⁴⁶ American Airlines Fleet Details and History and US Airways Fleet Details and History, PLANESPOTTERS.NET, <http://www.planespotters.net/Airline/American-Airlines> and <http://www.planespotters.net/Airline/US-Airways>.

D. Major Issues Raised by the Proposed Merger

The brief foregoing analysis of overlap routes, pricing, and capacity has a number of implications that should be considered by antitrust enforcers in their investigation of the proposed US Airways-American merger.

1. The Merged Network Potentially Increases Control Over Connecting and Intra-Regional Service in the U.S.

The network configuration of a merged US Airways-American has important implications for control over both connecting service and intra-regional service in the U.S. The networks of US Airways and American do not appear to be particularly complementary. There is relatively little “white space” in each network footprint that could be filled by the other carrier. Instead, combining the two networks could create regional and functional strongholds throughout the U.S. For example, the merged carrier would have a strong presence at six major airports on the eastern seaboard – JFK, LGA, PHL, DCA, CLT, and MIA.⁴⁷

US Airways-American would also have a presence at two key western airports – LAX and PHX. These airports are integral to providing connecting service to other western destinations. Finally, the carrier would have significant market share at two key midwestern airports, DFW and ORD, that are critical for providing connecting service to eastern destinations. Indeed, there is a resemblance to the United-US Airways merger of 2001, which was challenged by the DOJ on the basis of “solidifying control” over hubs.

2. A Substantial Percentage of Overlap Markets Would be Monopolized or Near-Monopolized by the Merged Carrier

Over 50 percent of the overlap routes potentially affected by the proposed merger of US Airways and American would be monopolized or nearly monopolized. In light of our earlier observations regarding fares and service in the aftermath of the Delta-Northwest and United-Continental mergers, the effect of the US Airways-American merger on overlap routes should garner some attention.

Airport-pairs reflect the narrowest relevant market definition in an airline merger. For example, a small but significant price increase on a route from CLT to DFW could be profitable because a substantial group of consumers would *not* substitute Dallas Love Field (DAL) for DFW. The reasons why consumers choose not to use alternative airports are relatively straightforward. Traveling to more remote airports may be more inconvenient and costly, some routes may involve the inconvenience of one or two stops,

⁴⁷ The combined shares based on passenger-miles at various hubs are: JFK (25 percent), LGA (30 percent), PHL (almost 60 percent), DCA (over 40 percent), CLT (over 90 percent), MIA (almost 85 percent), LAX (about 30 percent), PHX (about 50 percent), DFW (almost 90 percent), and ORD (about 45 percent). See U.S. Department of Transportation, Bureau of Transportation Statistics, *Air Carriers: T-100 Domestic Market (U.S. Carriers)*, available at http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=259&DB_Short_Name=Air%20Carriers.

and the timing of flights may be less frequent.

However, the DOJ typically considers the feasibility of consumer switching in cities with multiple airports. If switching is more likely, then markets might be defined more broadly as city-pairs, potentially containing more suppliers, and exhibiting lower concentration. Several hub airports that could be affected by the proposed merger (DFW, DCA, ORD, MIA, and LGA) are located in cities where there are alternative airports.⁴⁸ A brief review of these alternative airports indicates somewhat limited substitution options for travellers.

For example, travellers going to or from the New York City area might use JFK or EWR. JetBlue offers service from JFK that might provide some relief from potential post-merger fare increases. On routes originating or terminating in Chicago, Washington D.C., Dallas, or Miami areas, travellers could avail themselves of service that Southwest or LCCs offer at secondary airports Midway (MDW), Baltimore-Washington (BWI), Fort Lauderdale (FLL), and DAL.

Any claim that service offered by rivals at alternative airports can effectively discipline adverse post-merger effects on routes involving US Airways and American hubs, however, should be tempered by a number of important considerations. First, not all routes that could be affected by the US Airways-American merger are well-replicated by other carriers at alternative airports in terms of flight frequency and other important features.⁴⁹ Second, legacy competition cannot be relied upon to discipline post-merger increases on affected routes. Empirical work, for example, shows that the estimated effects of legacy competition are weak.⁵⁰ Indeed, much of the competition on the airport-pairs potentially affected by the proposed US Airways-American combination comes from legacy rivals. Third, as consolidation has significantly narrowed the field of competitors on airport-pair and city-pair routes, the probability of tacit coordination between remaining carriers (even on city-pairs), increases.

Fourth, JetBlue has continued to focus on the leisure market in Florida and the Caribbean and may not provide a particularly good substitute for business travelers who could be adversely affected by a merger of US Airways and American. Fifth, Southwest has a substantial presence at secondary airports such as MDW, BWI, and DAL where it could potentially wield significant market power. Indeed, there is evidence that fare discipline

⁴⁸ Depending on timing and the scale of entry, it is also possible that potential entry by carriers could change the competitive landscape in airport-pair and city-pair markets.

⁴⁹ Some routes originating or terminating at DFW cannot be replicated using DAL.

⁵⁰ Jan K. Brueckner, Darin Lee, and Ethan Singer, *Airline Competition and Domestic U.S. Airfares A Comprehensive Reappraisal* 48 (June 2010, revised May 2012), available at <http://www.socsci.uci.edu/~jkbrueck/price%20effects.pdf>. Brueckner, at al note (at 29) that "...our results imply that mergers between legacy carriers that reduce such competition may tend to generate small potential aggregate fare impacts as long as the overlap between the networks of the two carriers is limited." Presumably, if overlaps are not limited (as is likely the case in US Airways-American) then this conclusion should be tempered accordingly.

wanes as LCCs (e.g., Southwest) gain market share at key secondary airports.⁵¹ Trading one monopoly route that might be adversely affected by a US Airways-American merger for another that uses an alternative airport dominated by Southwest is unlikely to produce fare decreases in the wake of the merger.

In sum, while there are a number of alternative airports in cities with US Airways and American hubs that might be affected by the proposed merger, it is clear that they do not all provide good substitutes or justify defining markets around city pairs, as opposed to airport-pairs. When consumers have limited choices in airports (even within the same city), markets are typically smaller and more concentrated and the remaining carriers in the market can exert more control over fares.

3. The Merger Increases the Probability of Adverse Unilateral or Coordinated Effects

Fare increases following the Delta-Northwest and United-Continental mergers have important implications for another legacy merger. Indeed, the fact pattern for a US Airways-American merger is similar. Substantial competition would be eliminated on important routes; there appear to be limited options facing consumers seeking to avoid post-merger price increases in cities with multiple airports; and both US Airways and American tend to be high-priced rivals. The merger would create a dominant firm with a substantial presence on a significant proportion of important airport-pair routes.

One competitive concern is how the firm, acting unilaterally (alone) post-merger, might be able to exercise market power, with adverse effects on fares, service, convenience, and consumer choice. As noted earlier, if consumers view the two carriers as close enough substitutes such that sales from one of the merging parties would be diverted to the merger partner enough to make a price increase profitable, the merger could result in upward pricing pressure. On overlap routes where US Airways and American are the dominant carriers – as is the case on a number of routes potentially affected by the merger – diversion of sales from US Airways to American (or vice-versa) is more likely.

The merger could also increase the risk of anticompetitive coordination. There are relatively few competitors on top routes. A number of factors could facilitate explicit or tacit collusion, including high levels of price transparency, relatively homogeneous products within fare classes, and visible cost structures. It is therefore possible that the proposed merger could facilitate anticompetitive coordination on fares, ancillary fees, or capacity among the few carriers on routes affected by the merger.⁵²

⁵¹ See e.g., John Kwoka, Kevin Hearle, and Phillippe Alepin, *Segmented Competition in Airlines: The Changing Roles of Low-Cost and Legacy Carriers in Fare Determination*, working paper, presented at 10th Annual IIOC, Washington, DC (May 2012).

⁵² For more on anticompetitive coordination involving airlines, See, e.g., Several Borenstein, *Rapid Price Communication and Coordination: The Airline Publishing Case* (1994), in *THE ANTIRUST REVOLUTION* 233 (John E. Kwoka Jr. and Lawrence J. White, eds., 2004).

It is not obvious that LCCs would assuage concerns over adverse effects that could result from a US Airways-American merger. Based on our analysis of routes affected by the Delta-Northwest and United-Continental mergers, LCCs may have a limited ability to induce price discipline among the legacy carriers that serve hub-to-hub routes. We note that LCCs do not factor prominently on routes that could be adversely affected by US Airways-American and that the most important LCC (Southwest) has itself merged and behaves more like a legacy carrier. Shares on US Airways-American overlap routes are concentrated largely among legacy carriers, lending some support to the possibility that potential fare increases could be significant.

4. The Merger Could Harm Smaller Communities

As a consequence of U.S. policies that have supported increased U.S. airline industry consolidation, many mid-size communities have seen flight frequencies reduced, equipment downgraded or service lost altogether. Scores of airports are expected to lose scheduled service in the immediate years ahead as well as attendant local and regional economic benefits that flow from connectivity to the world's important business centers.⁵³ This development, playing out in real time, is tied to U.S. public policy that encourages domestic consolidation and fortress-like hub airports.

Evidence from the Delta-Northwest and United-Continental mergers indicates that merged carriers have adjusted capacities on overlap routes where they are dominant in a variety of ways. One is to drive more traffic to large hubs, with the possible side effect of starving routes involving smaller cities. Similar fact patterns across these mergers and US Airways-American raises the possibility that smaller communities could be harmed by the proposed merger. Loss of consumer choice that forces consumers to use less convenient connecting service or travel longer distances to other airports represent legally cognizable adverse effects of a merger.⁵⁴

The practical implication of the foregoing is that antitrust enforcers should regard with skepticism any denials by the merging parties of future negative effects on many of the markets served before the merger. Moreover, in light of the potential harm to smaller communities, airline mergers should not be given a “pass” on the basis of countervailing “out-of-market” benefits. In other words, any probable harm to smaller communities resulting from the US Airways-American merger he must be directly addressed.

⁵³ See, e.g., Boyd Group International, *Air Service Challenges & Opportunities For US Airports* (2012), available at <http://www.aviationplanning.com/Images/AirServiceRealitiesFromBoydGroupInternational.pdf>. See also Will Phase-Out of RJs Doom Small Airports? 81 AIRPORT POLICY NEWS (July/August 2012), available at <http://reason.org/news/show/airport-policy-and-security-news-81>.

⁵⁴ For further discussion, see, e.g., Robert H. Lande and Neil W. Averitt, *Using the 'Consumer Choice' Approach to Antitrust Law*, 74 ANTITRUST L. J. 175 (2007).

5. The Systems Competition Argument is Complex and Requires Careful Scrutiny

One rationale for merger is to grow larger to match rivals' size in the domestic and international spheres. This rationale is part of the "systems" argument for consolidation, the kernel of which is that carriers that are national in scope should be about equal in size in order to compete effectively. If a systems argument based solely on the need to have equal size competitors were to hold sway, then successive mergers would lead to the Big 3, then the Big 2 carriers, while dimming the prospects for a continued LCC presence in the industry. For the systems argument to be compelling, a more robust rationale is therefore necessary to convince antitrust enforcers not to challenge an airline merger.

For example, for systems competition to be effective, carriers must be able to quickly enter routes that provide comparable alternatives to the service provided within the networks of rival hub-and-spoke and point-to-point or hybrid systems. This is unlikely to be the case. Legacy hub-and-spoke systems feature carriers that dominate certain hubs, making entry by rivals difficult, particularly in cities or regions without alternative airports. Moreover, entry into markets where either the origin or destination is *not* a hub or a hub-equivalent (e.g., a secondary airport that provides a comparable alternative to a hub) is less likely to enhance systems-based competition.

Finally, it is clear that consumers cannot easily switch between different airline systems. A number of factors have the effect of locking consumers into one carrier, including: frequent flyer programs, brand loyalty, participation in code-sharing and international alliances, and location relative to airlines hubs. Consolidation has arguably exacerbated this consumer lock-in effect over time. The equal-size competitor argument as a justification for merger should therefore account for the fact that constraints on the consumer side limit rivalry between systems.

6. The Proposed Merger Could Enhance Monopsony Power

Consolidation in the domestic industry has produced three large airline systems from six airlines in four years' time (Delta, United Continental, and Southwest). The proposed merger of US Airways and American would eliminate yet another airline to produce four mega-carrier systems. Another merger of major carriers should begin to raise questions, as described in the GUIDELINES, about the effect of the transaction on the carriers' buying market power. The proposed US Airways-American merger raises two potential sources of concern.

One monopsony issue is that a merged US Airways-American, as the largest carrier in the U.S., could wield significantly more buyer power than each carrier does independently. As a result, the merger could – as the GUIDELINES describe – reduce the number of “attractive outlets for their [suppliers'] goods or services.”⁵⁵ Airlines are significant purchasers of goods and services from sellers in complementary markets. These suppliers

⁵⁵ GUIDELINES, *supra* note 7, at §12.

include: travel agencies, travel management companies, airports, distribution systems, parts suppliers, and caterers. Such suppliers are far less powerful and dispersed relative to the airline buyers with which they do business. As a result, they lack the bargaining power necessary to balance the buyer power potentially exercised by the merged carrier. The merger could therefore result in suppliers being squeezed by below-competitive prices paid for their goods and services.

A second source of concern surrounding monopsony power relates to the role of US Airways and American in global airline alliances. Because US Airways and American are currently in different global alliances, and one carrier would switch alliance membership, an important by-product of the merger would be a reconfiguration of the international alliances landscape. Given American's protracted and controversial efforts to obtain antitrust immunity for its participation in the oneworld alliance, it is more probable that US Airways would defect from the Star alliance to join oneworld.

Global antitrust immunized airline alliances are already powerful buying groups that exert market power over various suppliers. The merger of US Airways and American (conformed within one alliance) could produce a larger oneworld alliance vis-à-vis a more disparate set of suppliers. Similar to the argument regarding the merging carriers themselves, the monopsony concern in the global alliance context arises because the merged carrier could create a more powerful oneworld alliance group buyer. An antitrust investigation into the proposed merger of US Airways and American should frame the question of how the proposed merger could affect the incentive and ability of the larger oneworld alliance to adversely affect prices paid to the various alliance suppliers by driving them below competitive levels.

The likelihood of monopsony effects that might result from the proposed merger is difficult to predict without information from the suppliers who themselves do business with the airlines and with global airline alliances. Specifically, it will be important for the DOJ to understand how suppliers' bargaining power could be affected by a combined US Airways-American and a larger and potentially more powerful oneworld alliance.

7. The Proposed Merger Could Exacerbate an Existing Lack of Ancillary Service Fee Transparency

Price transparency is vitally important for the competitive process to function properly.⁵⁶ However, the latest round of airline industry consolidation has been accompanied by carriers aggressively unbundling their products (e.g., checked baggage, advance boarding, preferred seating, etc.) and charging fees for services previously included and paid for by consumers in the price of their tickets. While unbundling is generally pro-competitive, it is unlikely to be beneficial without transparency in prices that is typically intended to accompany it. Indeed, airlines have been increasingly able – without

⁵⁶ We note that price transparency is also essential for antitrust enforcers to accurately evaluate the competitive effects of mergers and conduct-based issues. This ranges from defining relevant markets to determining a merger's effect on quality and choice.

competitive repercussions – to ignore the demand for ancillary fee data even from their largest, most sophisticated customers.⁵⁷ Moreover, airlines have inadequately responded to the concerns of Congress and the DOT over lack of transparency and purchasability of ancillary fees.⁵⁸

The obvious struggle within the domestic airline industry over unbundling and price transparency is a conflict that presents an important “cross-over” issue between consumer protection and antitrust. For example, in eschewing true price transparency, airlines increasingly mask the all-in price of air travel, with two major adverse effects. First, lack of price transparency prevents consumers from efficient comparison-shopping of air travel offerings across multiple airlines – a hallmark of U.S. airline industry deregulation. A second consequence of the deterioration in price disclosure is that ancillary fees go largely undisciplined by market forces. Likewise, base fares are today not exposed to the full discipline of the marketplace and represent unreliable comparative benchmarks for consumers and regulators alike because some fares contain specific services that others do not. Arguably, to the extent that airlines are in a commodity business, it is to their advantage to attempt to differentiate themselves by making meaningful price comparisons difficult.

The question for an antitrust investigation of a proposed merger of US Airways and American is whether the combination could dampen the merged carriers’ incentive to disclose ancillary fee information to consumers. If so, such an adverse outcome could represent a cognizable adverse effect of the merger. Arguably, as airlines have grown larger and more powerful relative to consumers through consolidation, carriers have increasingly been able to refuse to provide consumers with so-called ancillary services and associated fees information. This supports the notion that rivalry creates incentives for sellers to fully inform consumers about the pricing, quality, and availability of their products. A loss of competition through merger therefore diminishes those incentives, particularly in cases such as US Airways-American where the combination results in extremely high levels of concentration.

It will be important for the DOJ to determine if and how a merger of US Airways and American – a transaction that would create the largest airline in the U.S. – could alter the ability and incentive for the merged carrier to disclose ancillary fee information differently than before the merger. The mechanism for this may be that with fewer players in the market, the need for sellers to reach agreement on matters such as how to deal with baggage fees is minimized because it can be handled by the airlines “tacitly.” Curbing or preventing such behavior is one of the major purposes of the antitrust laws, particularly merger control.

In light of the fact that the industry has long-opposed efforts to require fuller disclosure,

⁵⁷ U.S. DOT Needs To Evaluate Airline Industry Consolidation: Is Proposed US Airways – American Airlines Merger Cause For Concern? BUSINESS TRAVEL COALITION.COM, April 22, 2012, *available at* <http://businesstravelcoalition.com/press-room/2012/april-22---us-dot-needs-to.html>.

⁵⁸ The same is true for concerns over extended tarmac delays.

the benchmark for a forward-looking analysis of how a US Airways-American combination affects information disclosure should be the DOT's statutory authority to remedy unfair and deceptive practices in air transport.⁵⁹ For example, the merger may increase the leverage the airline might have over the DOT or expose weaknesses in policing and enforcing conduct regarding fee information disclosure under the regulatory statute. If so, then there may well be a role for antitrust to play in remedying adverse effects relating to ancillary fee disclosure in the merger proceeding.

V. Conclusions

The proposed merger of US Airways and American ideally presents the opportunity for antitrust enforcers to consider the implications of similar fact patterns and parallels with previous legacy combinations. Moreover, the proposed transaction should be viewed with an eye to the critical transformation such a transaction could impose on the domestic airline industry and its consumers. Four large airline systems and a small and dwindling fringe of LCCs and regional airlines would populate the industry. While the analysis discussed in this White Paper is by no means conclusive of the likely effects of the proposed transaction, it may serve to frame several key issues that deserve attention in an antitrust investigation and more broadly by aviation policymakers.

- ***In light of the potential for adverse affects indicated by our brief analysis of the proposed merger, the burden remains with the merging parties to show that their transaction would not substantially lessen competition and harm consumers.*** Based on an analysis of overlap routes that demonstrate high levels of merger-induced and post-merger concentration, the proposed merger of US Airways and American could potentially substantially lessen competition. Coupled with clear warning signs from previous legacy mergers regarding post-merger fares and service to smaller communities, there appears to be enough smoke surrounding the proposed merger to indicate a potential fire. The merging parties therefore bear a heavy burden in demonstrating that their merger would not be harmful to competition and consumers.
- ***Efficiencies claims should be viewed skeptically by antitrust enforcement.*** Three major factors should give the DOJ significant pause in relying on any efficiency claims for approving the proposed merger of US Airways and American. One is the diminishing likelihood of realizing typical efficiencies as networks become larger. Another is a growing body of evidence surrounding costly and unexpected integration problems in past mergers. Finally, as the analysis of Delta-Northwest and United-Continental makes clear, post-merger capacity adjustments can have a range of positive and negative effects that may be extraordinarily difficult to disaggregate and categorize as costs or benefits at the time a merger is reviewed. Collectively, these factors highlight the need to treat efficiency claims with skepticism, particularly in large mergers.
- ***LCCs cannot be relied upon to save the day for legacy mergers that present sizable***

⁵⁹ Federal preemption strips airline industry consumers of FTC protections as well as virtually all state remedies under consumer protection laws.

competitive issues. The dwindling stock of LCCs and their exposure as potential takeover targets – particularly in light of the Southwest-AirTran merger – makes them increasingly unreliable as a source of competitive discipline in the industry. Pre- to post-merger fare increases on Delta-Northwest and United-Continental routes highlight the challenges that smaller, lower-cost rivals face on hub-to-hub routes dominated by legacy carriers. Increasingly concentrated hubs resulting from previous legacy mergers raise further barriers to LCC entry that could potentially discipline adverse effects.

- ***Airline merger review should consider the adverse effects of merger-related service cutbacks to smaller communities.*** Choice and availability are important variables in the antitrust analysis of transportation networks, since consumers have limited flexibility over the points at which they enter (and exit) the network. The sacrifice of service to smaller domestic communities in the name of driving traffic to larger hubs that serves to improve the global competitiveness of domestic airlines is a lose-lose situation for many American consumers.
- ***Any argument that the proposed merger is necessary to create a larger system to effectively compete with the existing three systems is fundamentally flawed.*** For a systems arguments to be persuasive enough to justify antitrust approval, far more than the “equal size competitor” rationale would be necessary. Proponents of this rationale ideally need to demonstrate to antitrust enforcers how roughly equal size systems provide effective competition in the face of network differences, entry barriers, and consumer switching constraints.
- ***Competitive issues related to slot transfers at New York La Guardia airport and Washington D.C. Reagan National airport should be resolved in this proceeding.*** The recent swapping of slots between US Airways and Delta at LGA and DCA would enhance US Airways’ market share at DCA, a slot-controlled airport that would be affected by the proposed US Airways-American merger. Should the DOJ seek to negotiate a settlement with the merging parties, divestitures or other remedies involving the slot transfers – which materially affect the competitive landscape at DCA – might be sought as part of the merger transaction.
- ***The proposed merger raises competition issues that may require remedies that are broader than divestitures or carve-outs.*** Evidence from previous large mergers emphasizes that smaller communities, including small and mid-size cities, may have been harmed by post-merger capacity adjustments. Such communities should therefore be protected from the anticipated loss of hub services and degradation of service from a US Airways-American merger. One approach, for example, could be a multi-year moratorium on reductions in the number of seats and flights on routes involving major hub airports.
- ***Policies to promote LCCs and to ease participation by foreign airlines in domestic air travel are needed.*** As consolidation places more pressure on the dwindling stock of LCCs to discipline merger-related fare increases, it is clear that some policy is

needed to promote the role of LCCs in providing options to consumers for bypassing large legacy networks and putting some potential limits on their dominance.⁶⁰ Likewise, policies to ease participation by foreign airlines in domestic markets could increase competition.

- ***Short of moving to block the merger, the traditional remedies available to antitrust enforcers to fix a problematic airline merger may be inadequate in light of certain competitive problems raised by US Airways-American.*** In the event that the DOJ does have concerns over monopsony and ancillary fee disclosure issues in the context of the proposed merger, fixing them may test the effectiveness of traditional structural and behavioral antitrust remedies. Policymakers may therefore want to consider additional fixes – including legislative and regulatory approaches. For example, addressing the imbalance in market power between the increasingly powerful global alliances and more atomistic collection of service providers may be better addressed through amendments to the National Labor Relations Act to expressly permit travel agents to engage in collective bargaining with airlines. In order to address price transparency problems resulting from an imbalance in market power between the airlines and consumers, policymakers might consider the efficacy of a minimum set of national consumer protections, enforceable at the state level, to protect consumers while avoiding burdening airlines with a patchwork of consumer laws. The DOT might consider promulgating a new rule that would require airlines to provide ancillary fee data in a transparent and salable format in any channel they choose to sell their base fares such that consumers may efficiently compare full-price offerings from multiple airlines on an apples-to-apples basis.

⁶⁰ Empirical economic analysis indicates that historically, LCCs have exercised significant competitive discipline – a role that presumably is worthwhile preserving for the benefit of competition and consumers. See, e.g., Brueckner, et al, *supra* note 50 and Kwoka, et al, *supra* note 51.