

Airline Competition, Regulatory Policy, and Constructive Policy Improvements

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Introduction

Southwest Airlines' cancellation of some 17,000 flights during the 2022 holiday season provoked outrage among Southwest's customers and caused an outpour of empathy from the nation's dissatisfied fliers. Although Southwest's flights were cancelled because of a combination of poor weather conditions for flying and its antiquated technology for allocating its labor force to provide scheduled flights, the 1978 Airline Deregulation Act and the excesses of capitalism have been targeted by industry observers and commentators as the underlying cause of travelers' poor treatment. See, for example, the guest essays in the *New York Times* by [Elizabeth Spiers](#) and [William McGee](#). Consequently, policymakers have renewed their interest in policies that could potentially improve air carrier operations and increase fliers' satisfaction from commercial air travel.

My testimony discusses policymakers' concerns about the adequacy of US airline competition and whether some form of industry re-regulation or new airline regulations could increase airline efficiency, improve its treatment of passengers, and reduce fares. A concise journalistic overview of the contents of the testimony is contained in this [article](#). In what follows here, I draw on economics research to argue that airline industry competition is strong and that carrier efficiency and travelers' satisfaction with air travel would not be improved by re-regulation or new regulations. However, I also argue that policymakers could take actions to strengthen airline competition and to significantly benefit air travelers by granting cabotage rights to foreign airlines and by privatizing airports and air traffic control.

Airline Competition

The state of airline competition is important because it affects travelers' fares, the availability and convenience of service, and many amenities including but not limited to carry-on luggage space, meal service, seat comfort and spacing, and the like. It is straightforward to show that airline competition has disciplined air fares given that inflation-adjusted airfares were 60 percent lower in 2020 than in 1980, according to *Airlines for America*. In addition, fare levels are low enough to allow most Americans to fly—by 2020, 87 percent of the US population had taken a commercial airline trip.

Despite this evidence, critics of the state of airline competition raise concerns that there is little choice of carriers because the number of carriers in the airline industry has significantly decreased in the past few decades following a spate of major airline mergers. However, airline competition occurs at the route level not at the national level and the most heavily traveled routes, such as New York (JFK)—Los Angeles (LAX), Los Angeles (LAX)—San Francisco (SFO), New York (LGA)—Chicago (ORD), Los Angeles (LAX)—Chicago (ORD), and Atlanta (ATL)—Orlando (MCO), account for a large share of all US air travelers and those routes are served by several carriers. Competition also exists on routes connected to smaller airports. For example, after Delta made significant cuts in service at Cincinnati/Northern Kentucky International Airport, Allegiant, Frontier, and Southwest added new service. Similar changes are occurring at other former hubs, including Pittsburgh, Cleveland, Memphis, and St. Louis.

In chapter 7 of our forthcoming Brookings [book](#), *Revitalizing a Nation: Competition and Innovation in the US Transportation System* (hereafter *Revitalizing a Nation*), we conduct a useful exercise that reveals the state of US airline competition by estimating the hypothetical effect on airline fares if Ryanair, a low-cost Irish carrier modelled after Southwest, or EasyJet, a low-cost British carrier, entered all US routes that were not currently served by a low-cost carrier. We find that the effect of either carrier on US fares is more modest than might be expected because some 80% of domestic passengers in the United States are already flying on routes that are served by at least one low-cost or ultra-low-cost carrier.

It is more difficult to quantify the effect of airline competition on many aspects of service quality because they are difficult to measure. However, carriers have long engaged in fare and non-fare competition; thus, the robust level of fare competition suggests that carriers also are competing on service quality, but not necessarily at the level that consistently satisfies air travelers.

However, where airline competition may be lacking, I argue that government policy is generally to blame, and I will explain how government policy can be reformed to increase and expand airline competition that could potentially benefits carriers and travelers.

Regulatory Policy

Re-regulating the airline industry or introducing new regulations would not lead to greater competition. To understand this, it is useful to discuss how the empirical case for airline deregulation was developed and how deregulation was justified after it was implemented. Because nationwide airline deregulation and regulation never occurred at the same time, economists developed what is known as a *counterfactual analysis* where the actual effects of regulation were compared with the hypothetical effects of deregulation or vice versa.

As Steven Morrison and I discuss in our [book](#), *The Economic Effects of Airline Deregulation*, economists estimated the potential effects on airline fares from deregulation by comparing intrastate fares for flights in California and Texas, which were not regulated, with interstate fares for flights of comparable distance, which were subject to Civil Aeronautics Board (CAB) regulation. They found that the deregulated intrastate fares were considerably lower than the regulated interstate fares. Congress found this evidence compelling, and it helped to strengthen the case for deregulating the airline industry.

To assess the actual effects of airline deregulation, Morrison and I compared fares and flight frequencies on a large sample of routes in 1977, when the airline industry was still regulated, with fares and flight frequencies on the same sample of routes in 1983, when the industry had been deregulated for five years. After adjusting for differences between the macroeconomies of those two years and fuel prices, we found that lower fares and greater flight frequencies had netted travelers some \$6 billion in annual benefits (in 1977 dollars) from deregulation, while airline earnings increased by \$2.5 billion a year.

That evidence is based on the early years of deregulation. As a follow up study, Morrison and I included a calculation in another [book](#), *The Evolution of the Airline Industry*, which compared what regulated fares would have been during the period of deregulation into the 1990s using the

Standard Industry Fare Level, which was developed by the CAB to determine regulated fares and was still calculated by the US Department of Transportation for other purposes, with actual deregulated fares. For this calculation, we found that, on average, deregulation led to fares 22 percent lower than they would have been had regulation continued, with an annual saving to flyers of roughly \$12.4 billion dollars (in 1993 dollars).

Finally, chapter 7 of *Revitalizing a Nation* quantifies the substantial contribution that Southwest Airlines has made to the benefits from airline deregulation from its entry on US routes. We find that Southwest has reduced fares, on average, 30 percent and that air travelers have gained \$67.6 billion (2000 dollars) from its entry during the sample period, 1994–2014.

Today, it is very difficult to construct a plausible counterfactual that would provide empirical evidence that re-regulation or some new regulation of fares would benefit air travelers. For example, suppose regulators put a cap on air fares. The airline industry has periods when they are highly profitable, but they also have periods when they lose a lot of money. Airlines cannot stay in business in down times—and several have been liquidated—if they must sacrifice revenue that is generated when demand is high. So, if forced to sacrifice revenue due to fare regulation, they will try to make up for lost revenue elsewhere and create other problems in the process. To wit, paying employees less would mean more employee turnover and a less experienced workforce; raising the price of checked luggage would turn cabins into hand-to-hand combat zones for overhead space; jamming more passengers into cabins would require narrower seats with (even) less legroom and longer boarding times; and so on.

How have other aspects of air travel fared under deregulation besides fares and flight frequency and could new regulations improve any of those aspects? Importantly, the benefits from airline deregulation have been accompanied by improvements in airline safety to the point where no major US commercial airline has been involved in an accident resulting in a fatality in the United States since 2009.

Airline congestion and travel delays have become worse since deregulation, but this adverse trend is not attributable to deregulation per se. Instead, it is a consequence of policymakers failing to align other public policies with the effects of airline deregulation. Specifically, deregulation increased air travel, especially during peak periods, but airports have continued to set weight-based landing fees, which charge aircraft that weigh the least, such as private planes, less than heavier planes to use scarce runway capacity. This policy is perverse because smaller aircraft increase travel delays more than larger aircraft increase those delays because smaller aircraft require greater separation between aircraft to prevent wake turbulence. The efficient policy is to charge all aircraft congestion-based takeoff and landing fees, which vary with the volume of hourly air traffic. Thus, aircraft operations would be spread more evenly throughout the day and would result in less congestion and delays during peak travel periods.

Average load factors also have increased from roughly 55 percent during regulation to more than 80 percent today, which has created more competition for luggage space and tension in the cabin. This trend is attributable to the significantly lower fares caused by deregulation, but it is difficult to reverse this trend without re-regulation to raise fares. As I discuss, the trend could be reversed by policies that increase competition and available seats.

Finally, deregulation has enabled airlines to unbundle various amenities with separate charges, such as checked luggage, seats with more legroom, and so on. Unbundling prices for specific amenities enables travelers who prefer the lowest fares to purchase them without paying for amenities they do not value and enables other travelers to pay higher fares and receive amenities they do value. It would be difficult for policymakers to introduce a regulation that mandates a specific amenity at no cost without the regulation harming travelers in other ways.

In sum, whether policymakers seek to implement a new regulation to reduce fares, increase seat widths, prohibit charges for checked luggage or seat selection, require that all passengers be served hot meals, and so on, none of those regulations are likely to be supported by counterfactual empirical evidence that they would benefit air travelers on net.

Constructive Policy Improvements

The preceding conclusion is unlikely to appease travelers and government officials who are still outraged by Southwest's cancelled flights that ruined thousands of vacations and by travelers being stranded in airports with nowhere to sleep and little food to eat. Is it possible to do something to potentially address air travel nightmares even if they do not occur regularly?

Unfortunately, it is difficult to craft an effective policy to prevent an unanticipated disastrous air travel event beyond certain forms of terrorism. Freak storms, human illnesses, mechanical failures, air traffic control disruptions, and events that have yet to occur will always pose a threat to air travel and potentially ruin flights for passengers, flight attendants, and pilots. However, those events affect a very small share of the hundreds of millions of people who fly in the US every year.

At the same time, it is possible to adopt policies that would enable the US air transportation system to become more robust and respond more effectively to unanticipated events and would generally improve air travel. Those policies include granting cabotage rights to foreign air carriers, privatizing US airports, and privatizing US air traffic control.

Cabotage. The simplest way to understand the motivation for granting rights to foreign air carriers to serve US domestic routes is to consider a US automobile industry that prohibited foreign automakers, including but not limited to Toyota, Honda, Nissan, Porsche, Mercedes, BMW, and Volvo, from manufacturing and selling their vehicles in the United States. Clearly, such a policy would greatly harm US consumers.

Currently, that policy effectively governs air travel on US domestic routes because Air Canada, British Airways, Lufthansa, Singapore Airlines, Air France, ANA, Emirates, and several other foreign airlines cannot serve domestic passengers on a route that consists of an origin and destination airport in the United States. The historical justification for the policy is that the US military might need immediate access to all aircraft during times of war. Politically, domestic airline labor would mount significant opposition to additional competitive threats that could reduce its earnings. However, given the nation's increasing reliance on unmanned military aircraft and the weakened political position of airline labor in the wake of deregulation, those arguments have lost much of their force.

Travelers on US international routes have already benefited from policies that promote competition. Beginning in 1992 with the Netherlands, the US has negotiated open skies agreements with some countries that deregulate fares and carrier entry on the routes connecting the US and those countries. In my [paper](#) with Jia Yan, we estimate that travelers on routes subject to open skies agreements have gained at least \$4 billion annually and that they would gain an additional \$4 billion annually if the US negotiated open skies agreements with other countries that have a significant amount of US international passenger traffic.

As noted, chapter 7 of our forthcoming book *Revitalizing a Nation* expands the analysis of the effects on fares of competition between US and foreign airlines to the case of a foreign low-cost airline serving US domestic routes that were not already served by a low-cost US carrier. We found modest benefits, but we qualify that finding as a very conservative estimate of the potential benefits of allowing cabotage because it does not account for the change in the entire global airline network, including competition from other carriers on domestic and international routes in all countries. Indeed, changes in the global network would probably be the largest source of travelers' gains from cabotage because carriers would seek to provide seamless air travel throughout the world as, for example, travelers would be able to use a single carrier from, say, Des Moines to Vienna, and reduce connections and waiting time if connections were necessary.

Allowing cabotage would make it much less likely that low-density domestic routes were underserved because passengers on those routes could provide feed for international routes that originate in the US. Foreign carriers also would intensify competition on higher-density routes, reducing fares and improving service quality. Finally, foreign carriers could provide additional seating capacity, which could soften the traumatic effects if a domestic carrier experienced a meltdown.

Privatizing Airports. Privatizing airports can be motivated by considering an ill-conceived policy requiring all automobile dealers to be owned and operated by the government. In addition, the policy would result in some large metropolitan areas, such as Atlanta, Minneapolis, and Denver, being served by only one dealer and new dealers rarely entering the national dealer network.

That policy essentially governs the US commercial airport system, which consists almost exclusively of public airports; Atlanta, Minneapolis, and Denver are served by only airport; and only one new major commercial airport, Denver International Airport, has been built in the United States since 1973. US commercial airports were private enterprises until the Great Depression, when they experienced serious financial problems because of plummeting passenger demand. Government could have given airports financial assistance so they could remain in the private sector. Instead, they were put under the control of state and local governments, which had the sole authority to issue bonds to pay for airport facilities and operations.

Because new airports rarely compete with existing airports and because existing airports have little financial incentive to attract additional airlines and travelers, competition between multiple airports in a metropolitan area is limited. Chapter 8 of *Revitalizing a Nation* finds that travelers flying out of metropolitan origins with at least *three* airports pay lower fares, *ceteris paribus*, than travelers flying out of metropolitan origins with only one airport; but that fares from metropolitan origins with exactly *two* airports are higher compared with fares out of single-airport metropolitan

origins. In other words, our results suggest that the presence of two airports is not sufficient to induce competitive pressures to reduce fares (and their presence may be counterproductive).

Our preferred explanation for this finding is that three or more airports competing in a metropolitan origin facilitate more entry by low-cost and ultra-low-cost carriers and facilitate competition on adjacent routes. In other words, the channel by which three or more airports reduces fares is by generating additional *airline* competition. In contrast, when two airports serve a metropolitan origin, they tend to differentiate their service by developing distinct business models consisting of network airlines primarily catering to international and domestic markets and point-to-point airlines primarily catering to domestic markets. The distinct business models do not reduce fares because they do not encourage additional airline competition in the same markets.

Thus, although greater airport competition could reduce fares by increasing airline competition, such competition has not significantly developed because public airports generally do not have the economic incentive to compete with each other. Even worse, airports impede airline competition by erecting entry barriers, such as exclusive use gates, and policymakers institute slot controls at highly congested airports. Privatizing airports could therefore benefit travelers because those airports would have an economic incentive to compete by eliminating entry barriers and expanding facilities to attract more airline service, which in turn would increase airline competition that reduces fares. New private airports that enter the system, especially in metropolitan areas served by only one or two airports, also would have strong economic incentives to compete vigorously to attract more airlines and to provide adequate facilities for them.

A competitive private airport system also could improve air travel because private airports would have an incentive to implement congestion pricing, which would make more efficient use of runway capacity, and to adopt technological innovations, such as heated runways, which would melt snow upon contact, reduce air travel delays and cancellations, and improve safety. Chapter 8 of *Revitalizing a Nation* quantifies the potential benefits to travelers, airlines, and Boston Logan Airport if it installed heated runways.

Private airports also would have an incentive to work more closely with airlines to improve airline service and facilities to benefit travelers. For example, it would be in an airport's financial interest to incentivize and to help, if possible, airlines reduce the time they spend on their tarmac before departing, which frustrates passengers. Private airports also would have an incentive to explore the possibility of providing low-cost sleeping accommodations should airlines cancel flights, which would help reduce travelers' anxieties and possibly reduce the cost of compensation that airlines provide.

In sum, privatizing airports could enhance travelers' flying experiences by producing the expected benefits of competition; that is, more efficient operations and new innovations that reduce costs and prices and improve service, and by producing benefits from greater cooperation between airports and airlines, such as improved operations and facilities that are more responsive to passengers' preferences.

Privatizing Air Traffic Control.

The US Federal Aviation Administration has long been criticized for its failure to develop and operationalize a technologically modern air traffic control (ATC) system, which could expand airspace capacity, reduce traffic delays, and enhance safety. Nav Canada, Canada's ATC system, is seen as a model for the United States to privatize, or at least corporatize, its system to improve ATC efficiency, technology, and effectiveness. Canada's system improves on the US radar-based system to keep better track of aircraft in flight by using a constellation of satellites, which updates the position, altitude, and velocity of aircraft much faster than radar and provides considerable redundancy to ensure safety.

A privatized ATC system that adopts a satellite-based technology and expands air space capacity could benefit US air travelers by facilitating more aircraft operations and competition, enabling pilots to select faster routings, and making it even more likely that US air travel will continue to be extremely safe.

Final Comments

The fundamental challenge facing any transportation firm is to align capacity, which must be purchased and scheduled in advance, with consumer demand. The challenge to airlines is exacerbated by shocks to the macroeconomy, spikes in fuel prices, terrorist attacks, and other unanticipated events, which make it more difficult for airlines to align available seat capacity with potential demand. In fact, the US airline industry as a whole has never made money during a recession.

However, Southwest Airlines has made money during a recession and is responsible for a large share of the benefits to travelers from lower deregulated fares. Clearly, Southwest has been doing something right. Yet, its mass cancellation of flights during the 2022 holiday season has created waves of doubt about deregulation and spurred calls for some type of government action.

I have argued that certain government actions, granting cabotage rights to foreign airlines and privatizing airports and air traffic control, which promote airline competition, are called for to enable the air transportation system to be more responsive and robust to unanticipated shocks. The justification for this approach is that market participants facing competitive pressures would be strongly incentivized to correct their mistakes and to improve the efficiency of their operations or they will face financial failure. In contrast, government performance is generally static because policymakers rarely have the incentive to reform their policies to enhance economic efficiency. Evidence that shows the lack of efficient government policy reforms is available [here](#).

The US government should not undo airline deregulation or open skies agreements because those policies benefited the flying public and were not mistakes. Instead, policymakers should expand those policies by taking the lead in global airline deregulation and by privatizing air transportation infrastructure.

To be sure, those policies would represent a dramatic change and could pose possible risks to the public. Accordingly, it is appropriate for policymakers to first consider policy experiments. For

example, the US could negotiate a fully deregulated North American airline network with Canada and Mexico, where the three countries' airlines would be free to serve any airline route in North America. The European Union has a similar policy for participating countries' airlines. US policymakers could then assess the effects of additional competition on travelers' and carriers' welfare and reform the policy as appropriate. Similarly, policymakers could privatize airports in metropolitan areas that are served by three or more airports, assess the effects of the policy, and reform it as appropriate.

In the final analysis, governments and companies do not make mistakes; people make mistakes. People are less likely to make mistakes and more likely to correct the mistakes that they do make in an environment where they are held accountable for their mistakes. Increasing competition in the air transportation system is the best way to hold the system's participants accountable for their mistakes and to improve air travelers' satisfaction from flying.