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Airline Deregulation: Is It Time to Finish the Job?

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In May, Congress and the Administration established the National Commission to Ensure a Strong Competitive Airline Industry, a 15-member blue-ribbon panel charged with investigating why U.S. carriers have posted massive losses in recent years and what might be done to restore them to profitability. This article examines the current state of the industry, explains how it got there, and takes a critical look at the Commission's findings.

From the earliest days of air travel in the United States, the federal government has regulated many aspects of the industry. By the early 1970s, even though the number of passengers had grown exponentially and the airlines had vastly expanded their networks, it was becoming clear that economic regulation was constraining competition and stifling innovation. Passage of the Airline Deregulation Act in 1978 removed the government from the day-to-day operations of the air carriers, and though the transition was challenging for all concerned, most passengers have benefited greatly from more frequent service and lower fares.

Recently, the industry has experienced turbulent times, posting $10 billion in losses between 1990 and 1992 (see figure 1). In response, President Clinton and Congress established the National Commission to Ensure a Strong Competitive Airline Industry last May and charged it with determining what steps, if any, should be taken to get the airlines back on solid ground.[1] This *Economic Commentary* takes a look at the Commission's major findings, contained in a 37-page report released on August 24.[2] Two of its recommendations — attempting to increase U.S. airlines' access to international markets through multilateral agreements and placing the air traffic control system on a more businesslike footing — should enhance the industry's efficiency. Less clear is the impact of getting the Department of Transportation more involved in the financial decision-making of the airlines, the group's third proposal.

■ Regulatory Origins

The government has been a major player in the development of the commercial aviation industry since its inception. A prime example is the passage of the Air Mail Act of 1925, which provided profitable terms for carriers engaged in transporting mail. Without the mail contract for a route, an airline had little chance of success. Since the Post Office decided which routes it wanted served and awarded only one contract for each, the government exerted a great deal of influence over how the industry evolved.

A lack of faith in free markets and a perceived need to coordinate policy (by the mid-1930s, the airlines were subject to regulation by the Commerce Department, the Post Office, and the Interstate Commerce Commission) led to passage of the Civil Aeronautics Act (CAA) of 1938. Another motivation was lawmakers' concern that "overcompetition" would prove harmful to carriers' balance sheets and ultimately would compromise passenger safety. There was also a belief that the presence of multiple carriers on a given route constituted a duplication of resources and that in the absence of government intervention, service would not be provided to many small communities. The CAA gave the Civil Aeronautics Agency (later renamed the Civil Aeronautics Board, or CAB) the power to control entry into and exit from the industry, to regulate fares, and to provide subsidies

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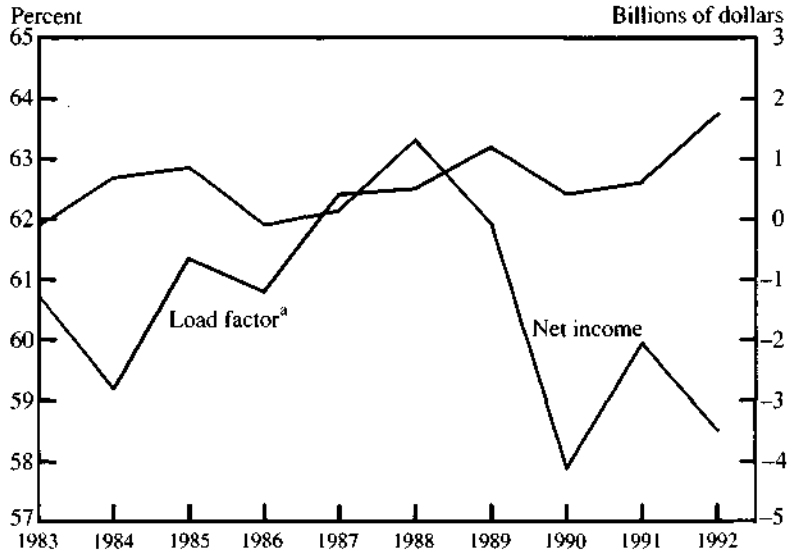
where necessary to ensure service. Unfortunately, the CAB's primary mission was unclear right from the start.[3]

■ Regulatory Experience

Except for the postwar entry of local-service airlines, which were generally not permitted to compete with the major carriers, federal regulation prevented new carriers from getting off the ground. It also significantly altered the financial incentives faced by the industry. Under CAB's reign, fares could be changed only when petitions from carriers were accepted or when the Board itself introduced systemwide adjustments to ensure a "fair" rate of return. Petitions from individual carriers for lower ticket prices were often challenged by other airlines, so competition occurred primarily through choice of plane type, seating arrangements, and departure frequency. Unfortunately, purchasing new planes and adding flights both raised costs and reduced the percentage of seats sold.

During the 40 years of CAB regulation, the industry evolved from small propeller-driven planes that could fly only in daylight to modern jets capable of carrying hundreds of passengers. Total operating revenue skyrocketed from $42.8 million in 1938 to $7.18 billion in 1970. In the early years, rapid technological progress helped to keep ticket prices down and at times even allowed them to fall. By the late 1960s, however, most of the productivity gains resulting from the move to jet engines had been achieved. Thus, despite the industry's growth and the general good health of most carriers, empty seats and inefficiently high levels of many services led to a rethinking of CAB fare structures.

FIGURE 1 LOAD FACTOR AND NET INCOME



a. Percentage of available seat miles flown by paying passengers.
SOURCE: U.S. Department of Transportation, Office of Aviation Analysis.

■ Origins of Deregulation

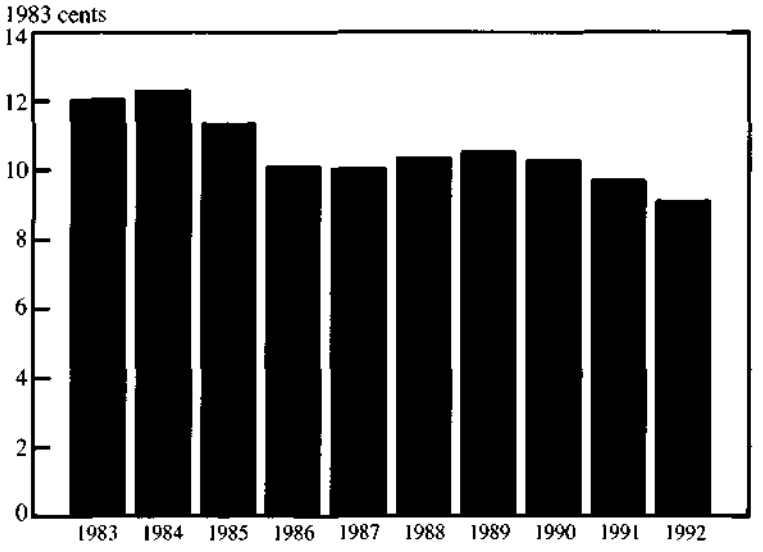
An early step in the deregulation process was the Domestic Passenger Fare Investigation (DPFI) of 1970. In recommending that ticket prices be based more closely on costs rather than primarily on distance, DPFI in effect reduced the implicit cross-subsidy to passengers taking shorter flights.[4] (Short flights have higher costs per mile because they require the same expensive ground, takeoff, and landing operations as longer flights, but have fewer miles over which to spread them.) By the mid-1970s, a substantial amount of additional evidence pointed to the inefficiencies of CAB regulation. One particularly notable clue was the experience of intrastate carriers in California and Texas, which operated exclusively within the confines of their respective states and thus were exempt from federal regulation. Their performance — much lower costs and fares than the regulated carriers could provide — gave some hint of what might be expected under deregulation.

In 1975, the Senate Judiciary Committee commenced hearings on the CAB as part of a broader investigation into the impact of government regulation. As momentum grew in Congress to deregulate the industry, the CAB began to loosen its restrictions on pricing and route authority. In 1978, the Airline Deregulation Act phased out all constraints on pricing, entry, and exit. But it also left relatively unchanged the government's role in the air traffic control system, in the regulation of airline safety, and in the effort to gain access to international routes.

■ Adjusting to Deregulation

Studies done prior to deregulation estimated that airlines' average cost was minimized at relatively low levels of output, suggesting that there was room in the market for many carriers. Easier entry and fare competition were expected to lower average ticket prices and increase passenger traffic, as witnessed in the markets served by intrastate carriers. In fact, this is exactly what happened.

FIGURE 2 AVERAGE FARE PER MILE



SOURCE: U.S. Department of Transportation, Office of Aviation Analysis.

But some of the results of deregulation were widely unanticipated. For example, most of the new entrants, along with many older airlines, went bankrupt or were acquired by other carriers. Another unforeseen development was the emergence of hub-and-spoke networks, which replace infrequent nonstop flights with frequent flights to an airline's home base. Although this means that passengers not traveling to the hub must change planes to reach their final destination, they are also likely to pay lower fares and to have more flights and airlines from which to choose. The advantage of hub-and-spoke networks to the airlines is that average cost falls as the number of passengers on a given route increases, since larger planes can be economically employed and terminal operation costs can be spread over more passengers.

One contentious issue is whether the expansion of hub-and-spoke networks has come at the expense of direct flights. In fact, the number of direct flights has *increased*, and remarkably few routes have been dropped since deregulation. While a small number of airports are dominated by a single carrier, concentration at the route level has fallen substantially since 1978. This means that even though the number of airlines has been declining, the degree of competition at the route level — the level that matters most for fare-setting — has actually intensified.

Another unanticipated development of deregulation is fare wars. To understand why this has occurred, some features peculiar to the industry must be understood. First, although planes are a highly mobile form of capital, they represent a fixed cost to the industry in the short run. Second, air travel is a service and as such cannot be stored. If a person wishes to fly next month, there may be no fare low enough to induce him to change his plans. Given the relatively low marginal cost of operating planes, fares may need to drop sharply in order to sell tickets when demand is down.

A final surprising result of deregulation is the burgeoning number of fare categories. An airline the size of United might make as many as 150,000 fare changes a day. One catalyst behind these changes is that the two broadest passenger groups — business travelers and tourists — have different characteristics. Unlike business travelers, tourists can book their flights in advance and lock in lower fares. They also tend to be more flexible when making travel arrangements. Business passengers, on the other hand, generally require a seat at short notice. By holding seats open, however, airlines risk being left with unsold space. Business travelers also place greater value on direct flights.[5] Even without passengers demanding different types of services, however, competitive markets can have high levels of price dispersion when volatile demand and capacity constraints exist.

Overall, airline deregulation has provided passengers with more and better services. The average fare per mile has fallen since 1983 (see figure 2), though certain consumers are now faced with higher ticket prices. A recent study by economists William Evans and Ioannis Kessides shows that the median price per mile dropped significantly between 1978 and 1988, while an increase was seen at the highest fare levels.[6] Even though fares have risen in real terms for some travelers, this does not necessarily imply that they are worse off, given the greater choice of departure times.

Airlines and airline workers appear to have fared less well under deregulation. Stock returns of the major carriers have underperformed the Standard & Poor's 500 by about a third since 1978, and though employment has generally risen and wages and benefits remain well above those of many other industries, compensation has not kept pace with inflation.

Although this sluggish wage growth may not be due entirely to deregulation, as workers in many other industries experienced a similar fate in the 1980s, there is reason to suspect that it is a contributing factor. Under regulation,

the airlines had little incentive to bargain aggressively with the unions. If workers went on strike, a carrier would continue to incur its fixed costs, but could lose most of its revenue. If a settlement was reached, the CAB would ultimately raise fares to allow the carrier to pay the higher wages. In a deregulated environment, the airlines have every incentive to hold down labor costs because there is no government agency to ensure that the added expenses are incurred by other carriers and passed on to passengers.

■ Proposed Reforms

The National Airline Commission issued a wide range of proposals that can be condensed into three broad recommendations: 1) The Federal Aviation Administration (FAA) should be "reinvented" to provide more effective air traffic control, 2) the United States should take the lead in negotiating multinational (rather than bilateral) agreements to ensure the freest possible access to international markets, and 3) a financial review committee should be formed to monitor the fiscal health of the airlines.

Restructuring the FAA as an independent corporate entity within the Department of Transportation would allow it to manage and fund the air traffic control system free from the limitations of the federal budget process. Currently, the FAA must rely on an unpredictable budgetary process and a cumbersome procurement system. Existing excise taxes could easily be transformed (in a budget-neutral fashion) into user fees, which could then be levered to provide the funds necessary to move to a modern air traffic control setup based on the Global Positioning System.[7]

With the FAA concentrating on modernizing air traffic control, the Department of Transportation could concentrate solely on regulating air safety. The Commission also recommended that the Department be more sensitive to the regulatory burdens it places on the airlines. Although some cost–benefit analysis is currently employed, costs to the industry are frequently underestimated while benefits to passengers are often overstated.

A second area targeted for reform by the Commission involves access to international markets. Most of the industry's growth potential lies outside North America. Consequently, obtaining rights to serve these markets is a major goal of U.S. airlines, and one that is essential for their continued growth. For passengers and shippers alike, a more complete network of international service will gain further importance as U.S. businesses increasingly market their goods and services abroad.

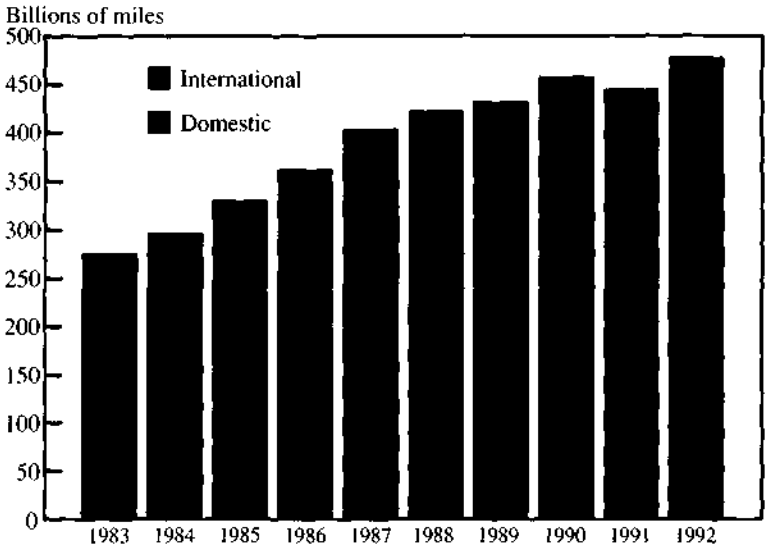
The Commission's most controversial recommendation concerns the financial review committee. As some see it, the biggest problem with this proposal is that the committee's objective is not made explicit. In fact, in their addenda to the final report, Commissioners John E. Robson and Daniel M. Kasper offered *quite* different views of what the committee would try to do. Whether its goal is the health of the industry as a whole, the fiscal soundness of the carrier being examined, the long-run interests of passengers, or the preservation of industry employment is of tremendous significance. If the objective is to improve the health of individual carriers, there is no reason to presume that such a committee would be any more effective than the airlines themselves. Any other goal puts the government in the position of actively altering the terms of exchange (output, profits, wages, employment, and fares). In fact, the proposed committee has the potential to be *more* intrusive than was the CAB. The CAB simply concentrated on deciding where carriers could fly and what they could charge. The new committee could do all that (given the blessing of the Secretary of Transportation) and could also determine debt–equity ratios or choose equipment and suppliers.

Another source of concern centers on the proposed review committee's likely effectiveness. The financial services industry probably faces the strictest financial fitness reviews of any industry, yet this did not prevent large-scale insolvencies and overcapacity in the 1980s. Also, the exposure of taxpayer dollars (in the form of deposit insurance in the banking industry) is not present in the airline industry, so the case for public involvement is harder to make. While passengers would surely be inconvenienced if a major airline went under, other carriers would move in to service the affected routes.

There is also a danger that the committee could take its mandate to ensure a healthy airline industry to the extreme — as bank regulators were accused of doing after the savings and loan fiasco — and overly constrain airline management. By limiting management's flexibility, carriers' financial difficulties could be exacerbated during periods of weak demand.

It is possible that a financial review committee might have prevented the leveraged buyouts of Northwest and TWA, both of which turned out badly. However, for every poorly structured leveraged buyout the committee might stop, there could be a Southwest that would not be given a chance to succeed. In short, the committee could stifle innovation. If increased financial review

FIGURE 3 REVENUE PASSENGER MILES[a]



a. Number of miles flown by paying passengers.
SOURCE: U.S. Department of Transportation, Office of Aviation Analysis.

of carriers is required, it should be supplied by the airlines' stockholders and creditors, not by the government.

■ Current Conditions

The airline industry has weathered a turbulent few years, caused in part by expansion plans based on traffic growth forecasts that never materialized. Many of the industry's problems are temporary in nature, however. About $3 billion of the $10 billion loss over the 1990–92 period appears to be the result of weak economic conditions. (Recall that given the industry's low marginal costs, fares may drop sharply in the face of weak demand.) Another $4 billion was a direct consequence of the oil price hike during the Gulf War, when jet fuel prices doubled in a span of two weeks. Also, a one-time accounting charge, required to reflect more accurately employees' future retirement costs, led to another $2 billion loss. Finally, about $1 billion in red ink stems from a 1990 deficit reduction measure that raised the federal excise tax on airline tickets from 8 to 10 percent. The most recent financial statements of the major carriers suggest that they are slowly returning to profitability.

The main problem facing the airline industry today is that too many planes are chasing too few passengers. Although the percentage of seats occupied dropped only slightly in 1990–91 and recovered sharply in 1992, the improvement was accomplished through a drastic reduction in air fares. The number of passengers on domestic scheduled flights has remained relatively flat in recent years. Most of the traffic growth since 1987 has been on international routes, and even that measure has been sluggish since 1990 (see figure 3). The airline industry is a mature industry whose last major innovation was the introduction of jets 35 years ago. Demand is therefore likely to pick up more slowly than in the past. Furthermore, sharply lower communication costs may result in cutbacks in business travel.

Another long-term problem concerns taxation. In addition to paying normal business taxes, airlines must collect an excise tax on tickets as well as passenger facility charges. The rationale is that the government should be reimbursed for its investment in the industry's public infrastructure. But the excise tax generates more money than is spent, and passenger facility charges sometimes fund projects of dubious value to travelers. Excise taxes represent an efficient means of generating tax revenue only if they are imposed on price-insensitive goods or on items whose use society would like to discourage. Neither rationale appears to apply to the airline industry.

Still, it is possible for a major airline to earn a profit. Southwest, the lone large carrier that eschews hub-and-spoke networks, was the only one to operate in the black in 1992. Southwest offers service on short-haul, high-density routes at low prices. The sources of its cost advantage are that it flies only one type of plane (Boeing 737), provides no meal service, and, because it does not maintain a hub-and-spoke network, can get its planes back into the air in less than half an hour. This allows Southwest to fly its planes an average of 12 hours a day versus the industry average of only nine hours.[8] Furthermore, its employees are well paid by industry standards.

■ Conclusion

Whether the future of the airline industry belongs to the low-cost, non-hub carriers such as Southwest, to the large hub carriers, or to some competitive balance between the two remains to be seen. In the course of a few months, the National Airline Commission waded through a great deal of material and came up with two solid proposals for improving efficiency in the industry. Freer access to international markets would lead to lower fares and better service on those routes, while restructuring the FAA as a more independent government enterprise would allow it

to get on with the business of modernizing the air traffic control system. Unfortunately, the suggestion that the Department of Transportation assume a bigger role in the day-to-day financial workings of the nation's major carriers is not likely to improve the allocation of resources within the industry.

■ Footnotes

1. Sandra Pianalto, first vice president of the Cleveland Federal Reserve Bank, was a member of the Commission. This article is based on the research that went into supporting her efforts.

2. See "Change, Challenge, and Competition: A Report to the President and Congress," The National Commission to Ensure a Strong Competitive Airline Industry, Washington, D.C.: U.S. Government Printing Office, August 1993.

3. For an extensive discussion of the constraints imposed by the relevant legislation, see George Douglas and James Miller III, *Economic Regulation of Domestic Air Transport*, Washington, D.C.: The Brookings Institution, 1974, especially pp. 197–205. The authors find there is considerable evidence to support the hypothesis that the CAB attempted to maximize industry size.

4. Unfortunately, DPFI also scaled back the scope of discount fares, which limited airlines' ability to sell seats that would otherwise remain empty. For a discussion of how advance-purchase discount fares can enhance welfare, see Ian Gale and Thomas Holmes, "Advance-Purchase Discounts and Monopoly Allocation of Capacity," *American Economic Review*, vol. 83, no. 1 (March 1993), pp. 135–46; and "The Efficiency of Advance-Purchase Discounts in the Presence of Aggregate Demand Uncertainty," *International Journal of Industrial Organization*, vol. 10 (September 1992), pp. 413–37.

5. See Steven Morrison and Clifford Winston, *The Economic Effects of Airline Deregulation*, Washington, D.C.: The Brookings Institution, 1986, p. 18.

6. See William Evans and Ioannis Kessides, "Structure, Conduct, and Performance in the Deregulated Airline Industry," *Southern Economic Journal*, vol. 59, no. 3 (January 1993), pp. 450–67.

7. The Global Positioning System uses signals from at least three of an array of satellites in low Earth orbit to triangulate an aircraft's position to within a matter of feet.

8. In the long run, hub-and-spoke systems may coexist with linear route structures, since they have different advantages. In fact, Continental's introduction of "Peanut Fares" on selected routes appears to be an attempt to operate the two types of route networks within a single airline.

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