The State of the Airline, Airport & Aviation Industries*

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I. Introduction

Airlines were among the first of the major infrastructure industries to be deregulated, with the promulgation of the Airline Deregulation Act of 1978. In that legislation, Congress took the unprecedented step of sun-

setting a major regulatory agency — the Civil Aeronautics Board, which had been established four decades earlier.

Beginning in the Carter Administration, and perfected to an art form in the Reagan Administration, federal oversight of industries as diverse as airlines, busses, railroads, trucking, telephones, cable t.v., radio and t.v. broadcasting, banking, savings and loans, and oil and gas was significantly trashed. The virus of deregulation was politically contagious.

The means applied to transform and radically shrink government proceeded along two planes, sometimes independently. Congress passed major legislation mandating various forms of deregulation between about 1976 and 1985, while successive Presidents appointed free market ideologues to the regulatory agencies with the mission essentially to exceed their legislative mandates and ignore their oaths of office.

The laissez-faire economists who convinced Congress to promulgate the Airline Deregulation Act of 1978 promised that deregulation would result neither in increased concentration nor destructive competition. This was true, they insisted, because the industry was structurally competitive, possessed few economies of scale, and was impeded by few barriers to entry. But compare those predictions and assurances with the unfortunate results of deregulation:

- Under deregulation, the airline industry lost all of the money it made since the Wright Brothers' inaugural flight at Kitty Hawk in 1903, and $1.5 billion more.
- After more than 150 bankruptcies and 50 mergers, we now fly the oldest and most repainted fleet of aircraft in the developed world.
- In 1991, fully 30% of the nation's fleet capacity was in bankruptcy or close to it.
- Of the 176 airlines to which deregulation gave birth, only one remains (America West) and sadly, it too, is in bankruptcy.
- United, American, Delta and Northwest now control about two-thirds of the market, up from 53% just four years ago. And those figures do not include the 4% handled by Pan Am before its death, to be divided between United and Delta. This is an unprecedented rate of concentration.
- All the U.S. airlines together are now worth less on Wall Street than Japan Airlines, individually, is worth on the Nikkei.
- Despite predictions to the contrary, deregulation has produced the highest level of national and regional concentration in history.
- Although more people are flying than ever before, the percentage increase in domestic airline passenger enplanements was lower during the first decade of deregulation than in every decade which preceded it.
- While most passengers now fly on a discounted ticket, the full fare

has risen sharply under deregulation, more than double the rate of inflation. The discounts are now encumbered with onerous prepurchase, nonrefundability and Saturday-night-stay-over restrictions. They are therefore an inferior product to the passenger flexibility offered under regulation.

- Despite allegations to the contrary, average real fuel-adjusted ticket prices are higher than they would have been had the pre-deregulation trend continued. Pricing has not only increased above pre-deregulation trend levels, it has grown monstrously discriminatory.
- For example, it recently cost less to take a taxi than fly from St. Louis to Kansas City, for the 90 cent a mile cab fare was lower than the $1.00 a mile plane fare. It cost less to take a bus from Atlanta to Birmingham, and there catch a flight to Atlanta and connect on to New Orleans, than it cost to fly from Atlanta to New Orleans nonstop.
- Industry costs increased sharply under deregulation, while the long-term trend in productivity improvements fell flat.
- Hubbing-and-spoking, the dominant megatrend on the deregulation landscape, has caused air travel in some markets to regress back to the DC-3 era, robbing aviation of its inherent advantage and man's most precious commodity — time.
- Business travelers lose billions of dollars in productivity as a result of circuitous and time-consumptive hub-and-spoke operations.
- Under deregulation, service has declined, while consumer fraud has increased.
- Although fatality statistics do not reflect it (thank God), the margin of safety has also declined.
- Labor-management relations have deteriorated.
- Americans now rate airlines as the industry with which they have least confidence.

Neither economic nor equity goals have been advanced by deregulation. The assumptions upon which it was based — that there were few scale economies in aviation; that destructive competition in this industry was unlikely; that "contestability" of markets (the purported ease of potential entry) would discipline pricing — the three legs of the theoretical stool — have proven false. Remarkably, despite the disintegration of the intellectual foundation of deregulation, its proponents swear the thing works.

Deregulation is a rather peculiar phenomenon. Its most fervent proponents continue to embrace it, not merely as an abstract economic theory, but with political, almost theological, devotion. No matter what evidence is adduced of widespread failure (and there is plenty), they tenaciously insist such evidence can be reinterpreted as success. Some

go so far as to assert that its failures can be attributed to a belief that we didn't deregulate enough.

The free market, laissez-faire movement has earned a special place in history. Not since the Bolshevik Revolution has the discipline of economics embraced an ideology with such passion.

With the collapse of Marxism in eastern Europe, no advocate of responsible public policy today advocates that government should apply command economy-type restrictions over price and supply. But some, including this author, do believe the appropriate level of government oversight for this critical infrastructure industry lies somewhere between the regulatory regime established for airlines in 1938, and the contemporary environment of laissez-faire market Darwinism.

II. THE HISTORY AND METAMORPHOSIS OF AIRLINE REGULATION AND DEREGULATION

A. INTRODUCTION

Aviation is among the most profound of man's technological accomplishments. Like no other invention, it collapses the time/space continuum. Aviation shrinks the planet, intermingling the world's cultures and economies. It is an integral part of the infrastructure essential to commerce, communications and national defense.[1] Aviation is mobility for the human race, facilitating travel and tourism, and the world's largest single industry.

In October 1902, a couple of bicycle repairmen, Wilbur and Orville Wright, began to design the world's first motor driven airplane. Men had flown in balloons for decades, but the Wright brothers had something quite different in mind. On December 17, 1903, at Kitty Hawk, N.C., they successfully launched their oddly shaped vehicle into the air, and the world has never been the same since.

B. THE EARLY AIRLINES, FEDERAL SUBSIDIES AND AIR MAIL REGULATION

From its inception, the airline industry has been perceived as having tremendous potential as a catalyst for economic growth, and an essential means for facilitating communications and national defense. Early on, the U.S. government recognized its potential to serve the needs of a growing nation. As a consequence, our federal government has been active in promoting and encouraging its growth and development from the outset.

The government's responsibility to carry the mail as an essential means of communications was recognized by the framers of the U.S. Constitution, and embraced by that document. The compelling need for

1. PAUL DEMPSEY, LAW & FOREIGN POLICY IN INTERNATIONAL AVIATION 1 (1987).

expeditious mail service led the Post Office Department to develop the Pony Express, and to employ advanced technology as it emerged, beginning with the railroads.

The United States air transport industry owes its initial development to subsidies for carriage of the mail. As we shall see, the route structures of the largest airlines — United, American, TWA and Eastern — were largely the product of air mail contracts awarded by the Post Office Department in the 1920s and 1930s. Passengers rode on top, while mail was carried in the belly of aircraft.

Air mail service was inaugurated by the Army in 1918, on a route from New York to Philadelphia to Washington, D.C.[2] By 1920, transcontinental route from Hazelhurst Field, N.Y., to San Francisco, Calif., had been established.[3] By 1924, the Post Office Department had constructed nearly 2,000 miles of lighted airways, allowing pilots to make regular transcontinental night flights.[4] The first pilots were daredevils; sadly, 31 of the first 40 pilots in airmail service died in crashes.[5]

By the mid-1920s, Congress decided to privatize the carriage of mail. The Kelly Act (Contract Air Mail Act of 1925)[6] authorized the Postmaster General to award contracts for the carriage of mail to private carriers.[7] This marked the beginning of a viable private airline industry in the United States.[8]

The first five contracts were awarded to National Air Transport, Varney Lines, and Pacific Air Transport (all of which subsequently joined the United Air Lines system), Colonial Air Lines (later to become an important part of American Airlines), and Western Air Express (which would be merged into the TWA system).[9] The first air mail contracts established the route structure which would dominate air service for decades to come.

The Air Commerce Act of 1926[10] vested jurisdiction over safety and maintenance of airways, airports and air navigation facilities in the Secretary of Commerce.[11]

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2. ANDREAS F. LOWENFELD, AVIATION LAW I-2 (1972).
3. WALTER J. BOYNE, THE SMITHSONIAN BOOK OF FLIGHT 126 (1987).
4. LOWENFELD, *supra* note 2, at I-2.
5. TRANSPORTATION RESEARCH BOARD, WINDS OF CHANGE: DOMESTIC AIR TRANSPORT SINCE DEREGULATION 21 (1991).
6. 43 Stat. 805 (1925).
7. *See generally* R. BURKHARDT, THE CIVIL AERONAUTICS BOARD 4 (1974); S. RICHMOND, REGULATION AND COMPETITION IN AIR TRANSPORTATION 4 (1961); H. KNOWLTON, AIR TRANSPORTATION IN THE UNITED STATES 4 (1941); C. PUFFER, AIR TRANSPORTATION 2-3 (1941); L. KEYES, FEDERAL CONTROL OF ENTRY INTO AIR TRANSPORTATION 65-66 (1951); PAUL S. DEMPSEY & WILLIAM E. THOMS, LAW & ECONOMIC REGULATION IN TRANSPORTATION 26 (1986).
8. BOYNE, *supra* note 3, at 126.
9. LOWENFELD, *supra* note 2, at I-2.
10. Pub. L. No. 254, 44 Stat. 568 (1926).
11. DEMPSEY & THOMS, *supra* note 7, at 26-27.

In fact, federal regulation of aviation safety owes its genesis to the Air Commerce Act of 1926,[12] which established a special investigation division in the U.S. Department of Commerce and gave the Secretary of Commerce power to investigate and publicize air navigation accidents. With promulgation of the Civil Aeronautics Act of 1938,[13] Congress established the Civil Aeronautics Authority (subsequently renamed the Civil Aeronautics Board), and created therein an Air Safety Board with jurisdiction to investigate accidents, determine probable cause, issue reports, and recommend additional safety measures.[14] These powers were augmented by the Federal Aviation Act of 1958.

With the creation of the U.S. Department of Transportation in 1966, Congress established therein an independent National Transportation Safety Board [NTSB], giving it power to conduct investigations and hold hearings to determine "the cause or probable cause of transportation accidents and reporting the facts, conditions, and circumstances relating to such accidents."[15] The NTSB became truly independent and effectively autonomous from DOT with the Independent Safety Board Act of 1974.[16]

After Col. Lindbergh crossed the Atlantic in the Spirit of St. Louis in 1927, the industry enjoyed explosive growth. Even the stock of Seaboard Air Line, a southeastern railroad, experienced an unprecedented increase because of speculators' belief that it was somehow connected to aviation.[17]

The McNary-Waters Act of 1930[18] established a formula for air mail payments based on the amount of mail transported.[19] But Postmaster General Brown wanted to create a few large competing transcontinental airlines.[20] Rather than determining the issuance of routes on the basis of competitive bidding, they were actually determined at secret meetings in May and June of 1929 — later called "spoils conferences" — of airline executives with Postmaster General Brown.[21] He also encouraged mergers and consolidations of smaller airlines into larger, consolidated companies.

As a consequence, Northwest Airways served the northern tier states, though it lacked a transcontinental route. United Air Lines (organ-

12. Pub. L. No. 254, 44 Stat. 568 (1926).
13. Pub. L. No. 706, 52 Stat. 973 (1938).
14. Clemen & Long, *Representing Potential Litigants As Parties to NTSB Public Hearings: Some Problems In Search of Solutions*, 56 J. AIR L. & COM. 969, 973 (1991).
15. 49 U.S.C. app. §§ 1371-1389 (1988).
16. 49 U.S.C. app. §§ 1901-1907 (1988).
17. LOWENFELD, *supra* note 2, at I-3.
18. 46 Stat. 258 (1930).
19. DEMPSEY & THOMS, *supra* note 7, at 27.
20. LOWENFELD, *supra* note 2, at I-3, I-4.
21. *Id.* at I-4, I-5.

ized in December 1928) obtained control of National Air Transport, Boeing Air Transport, Varney Air Lines, and Pacific Air Transport, giving it a route system extending from New York to Chicago to San Francisco, and north and south along the Pacific coast.[22] Transcontinental and Western served the central United States, from New York to California via St. Louis and Kansas City. Eastern (then affiliated with Transcontinental) served the principal north-south routes, although United also had a route from Chicago to Texas.[23]

Congressional discontent with the administration of the McNary-Waters Act led to an investigation of these practices by a special Congressional committee chaired by Senator Hugo Black.[24] The revelations of this investigation convinced President Franklin Roosevelt to terminate all existing air mail contracts on the grounds that there had been collusion between the airlines and the Post Office Department in route and rate establishment.[25] He directed the Army Air Corps to transport the mail. A series of tragic crashes, killing about a dozen Army pilots, proved that the Army was inadequately trained in air navigation, inclement weather and night flying, and that the private carriers were technologically proficient.[26]

Congress responded by passing the Airmail Act of 1934 (Black-McKellar Act),[27] which authorized the new Postmaster General to award mail contracts on the basis of competitive bidding (usually on an exclusive basis for a particular route).[28] The system was to be comprised of four transcontinental routes, and an eastern and western coastal route. The legislation prohibited financial interests by airlines in other aviation companies, holding companies, and interlocking directorates.[29] After the initial contract term, postal rates were set by the Interstate Commerce Commission [ICC].[30] Also beginning in 1934, federal funds became a primary source of airport funding.[31]

C. Genesis of the U.S. Civil Aeronautics Board

The 1934 Act also established a Federal Aviation Commission [FAC]

22. *Id.* at I-3, I-4.

23. *Id.* at I-4.

24. F. Thayer, Jr., Air Transport Policy and National Security 10 (1965). Roosevelt would subsequently appoint the Alabama Senator to fill the first vacancy arising on the U.S. Supreme Court during his presidency. Black served on Supreme Court from 1937 until 1971.

25. Dempsey & Thoms, *supra* note 7, at 27.

26. Boyne, *supra* note 3, at 128; Lowenfeld, *supra* note 2, at I-5.

27. 48 Stat. 933 (1934).

28. Lowenfeld, *supra* note 2, at I-5, I-11.

29. *Id.* at I-5.

30. *Id.* at I-11.

31. Robert M. Hardaway, Airport Regulation, Law and Public Policy 16 (1991).

to study the entire field of aviation and report to Congress.[32] The FAC submitted 102 recommendations on January 30, 1935. It contended that the orderly development of air transportation required two fundamental ingredients. First, in the interest of safety, certain minimum standards of equipment, operating methods and personnel qualifications should be maintained. Second, "there should be a check in development of any irresponsible, unfair, or excessive competition such as has sometimes hampered the progress of other forms of transport."[33]

When the Great Depression broke, airlines were in their infancy. Congress was confronted with a national economic disaster, one which had hit the infrastructure industries particularly hard. Congress held hearings on the state of the airline industry, concluding that the economic condition of the airlines was unstable and that a continuation of its anemic condition could imperil its potential to satisfy national needs for growth and development. The legislative history of the Civil Aeronautics Act of 1938 is replete with concerns over excessive and destructive competition and the adverse effect that the economic crisis was having upon the industry and its ability to attract capital and maintain safe and adequate operations.[34] Demand for air services had softened significantly during the Great Depression, and carriers were spiraling downward into a sea of red ink. Without governmental protection, bankruptcies proliferated. Colonel Edgar S. Gorrell, president of the Air Transport Association, observed:

> Since air transport was launched into meteoric growth, approximately $120,000,000 of private capital has been devoted to it, but, of that sum, there remains today scarcely 50 percent. Since the beginning of air transport, a hundred scheduled lines have traversed the airways in a struggle to build this newest avenue of the sky. But today scarcely more than a score of those companies remain. The industry has been reduced to the very rock bottom of its financial resources. . . .
>
> There are only two ways whereby the necessary capital can be provided to this industry. One is the way toward which the governments of foreign lands increasingly tend — the way of mounting governmental subsidies, whereby public funds are poured without stint into air transport. The other way is the traditional American way, a way which invites the confidence of the investing public by providing a basic economic charter that promises the hope of stability and security, and orderly and intelligent growth under watchful governmental supervision.[35]

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32. W. JONES, REGULATED INDUSTRIES 732 (1972).

33. SENATE COMM. ON INTERSTATE COMMERCE, FEDERAL AVIATION COMMISSION, S. DOC. No. 15, 75th Cong., 1st Sess. (1935), *quoted in* Paul S. Dempsey, *The Rise and Fall of the Civil Aeronautics Board — Opening Wide the Floodgates of Entry*, 11 TRANSP. L.J. 91, 102 (1979).

34. Paul S. Dempsey, *The Rise and Fall of the Civil Aeronautics Board — Opening Wide the Floodgates of Entry*, 11 TRANSP. L.J. 91, 97 (1979).

35. *Civil Aviation and Air Transport: Hearings on S. 3659 Before the Subcomm. on Interstate*

Not only had private entrepreneurs invested considerable capital in the airline industry, but the federal and local governments had as well. That investment needed protection.[36] In order to avoid the deleterious impact of competition described with pejorative adjectives such as "intensive," "extreme," "destructive," "cutthroat", "wasteful," "excessive," "unbridled," and "unrestrained," and to avoid the economic "chaos" which had so plagued the rail and motor carrier industries, Congress established a regulatory structure similar to that which had been devised for an orderly development of those industries which had also been perceived to be "public utility" types of enterprises — the railroads and motor carriers.[37]

Transportation was also viewed as different from other industries, with necessity characteristics making it in the nature of a "public utility", essential to the national economy and the national defense, therefore warranting protection of the "public interest" by government.[38] ICC Chairman Joseph Eastman noted, "important forms of public transportation must be regulated by the government. That has been accepted as a sound principle in this country and . . . in practically every country in the world. . . . Transportation is of such vital importance to the public welfare and the business is so affected with a public interest that some measure of government regulation is . . . necessary."[39]

The FAC recommended an independent agency be vested with jurisdiction to regulate airline entry, rates, service, consolidations and government subsidies. President Roosevelt preferred vesting these powers in the existing transportation regulatory agency, the ICC, which had been established in 1887 to regulate the railroads, and whose jurisdiction had been expanded in 1935 to regulate the motor carriers and busses.[40] But the industry feared that the ICC would protect the interests of the railroads, which were the dominant passenger carriers of the day, and sought creation of their own aviation regulatory agency.

Three years after motor carriers were brought under the regulatory umbrella, Congress added airlines to the regulatory scheme, promulgating the Civil Aeronautics Act of 1938. In so doing, Congress created a new regulatory body to regulate this industry, the Civil Aeronautics Board

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Commerce, 75th Cong., 3d Sess. 30-31 (1938) (statement of Colonel Edgar S. Gorrell), *quoted in* Dempsey, *supra* note 34, at 97 n.14.

36. Dempsey, *supra* note 34, at 102.

37. *Id.* at 95-97.

38. *Id.* at 96 n.11.

39. *Regulation of Transportation of Passengers and Property by Aircraft, Hearings on S. 2 and S. 17 Before a Subcomm. of the Senate Comm. on Interstate Commerce*, 75th Cong., 1st Sess. 67 (1937) (statement of Joseph Eastman), *quoted in* Dempsey, *supra* note 34, at 100.

40. JONES, *supra* note 32, at 732; PAUL S. DEMPSEY, THE SOCIAL AND ECONOMIC CONSEQUENCES OF DEREGULATION 9-14 (1989).

[CAB], folding into it the existing Bureau of Air Commerce and the Bureau of Air Mail.[41] Like so many agencies created to engage in economic regulation, the CAB was modeled after its older sibling, the ICC.

The agency was a relatively small institution by Washington standards, comprised of five members (no more than a simple majority of whom could be members of a single political party) appointed by the President with the advice and consent of the Senate, for staggered terms of office. It was given jurisdiction over three major aspects of airline operations: (1) entry (where a carrier could fly), (2) rates (what it could charge), and (3) antitrust and business practices. Additional powers conferred over such things as subsidies, consumer protection and, initially, the establishment and maintenance of airports and airway navigational aids.[42] But there were many significant aspects of airline operations over which it had no jurisdiction, including scheduling frequency, type of aircraft, or level of service.

The governing legislation encouraged the CAB to take several goals into account:

> (a) The encouragement and development of an air-transportation system properly adapted to the present and future needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense;
> (b) The regulation of air transportation in such manner as to . . . assure the highest degree of safety in, and foster sound economic conditions in, such transportation . . . ;
> (c) The promotion of adequate, economical, and efficient service by air carriers at reasonable charges, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices; [and]
> (d) Competition to the extent necessary to assure the sound development of [the] air-transportation system . . . .[43]

D. Regulation by the U.S. Civil Aeronautics Board

The CAB began by "grandfathering" in the existing airlines, or stated differently, issuing certificates of public convenience and necessity authorizing operations commensurate with the incumbents' existing operations (most of which were coterminous with their outstanding air mail contracts). In its first full year of operation, the CAB issued certificates of public convenience and necessity to 16 carriers:[44]

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41. The agency was initially named the Civil Aeronautics Authority. HARDAWAY, *supra* note 31, at 13.

42. HARDAWAY, *supra* note 31, at 13.

43. Federal Aviation Act of 1958, Pub. L. No. 85-726, § 102, 72 Stat. 737 (1958).

44. James W. Callison, *Airline Deregulation — A Hoax?*, 41 J. AIR L. & COM. 747, 758 (1975). Many, of course, had disappeared or merged with surviving airlines because of an inability to sustain profitability. *Id.*

American
Braniff
Chicago & Southern (subsequently merged with Delta)
Colonial (subsequently merged with Eastern)
Continental
Delta
Eastern
Inland (subsequently merged with Eastern)
Mid-Continent (subsequently merged with Braniff)
National
Northeast
Northwest
Penn Central (name changed to Capital; merged with United)
Transcontinental and Western (name changed to Trans World Airlines)
United
Western

The federal regulatory regime, coupled with subsidies, brought stability to this important industry which had been so plagued by economic losses. But soon America entered World War II, and much of her civilian fleet was dedicated to military service.

After the War, the CAB began to authorize "local service airlines" to provide feeder service to the "trunks" (grandfathered long-haul carriers) at regional gateways. Eventually, these local service carriers would grow to become regional airlines, with CAB authorization of their entry into denser and more lengthy routes beginning in the 1960s, competing with the trunk airlines.[45] By 1972, there were nine such carriers: Allegheny, Air West, Hughes, Frontier, North Central, Ozark, Piedmont, Texas International and Southern.[46]

Several thousand air taxis (originally termed "small irregular carriers") were also exempted by the CAB.[47] Commuter airlines (which flew aircraft seating no more than 19 passengers, later 60 passengers) were exempted.[48] This expanded service geographically and added a new group of airlines to the system. Between 1939 and 1975, the Civil Aeronautics Board certificated some 86 new airlines to compete with the 16 original carriers, and exempted thousands more from the certification re-

45. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 26.
46. *Id.* at 27; LOWENFELD, *supra* note 2, at I-17.
47. By 1971, more than 3,500 air taxis served the United States. LOWENFELD, *supra* note 2, at I-17.
48. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 27.

quirements.[49] In addition, several intrastate airlines existed exempt from CAB requirements, including Southwest, Pacific Southwest, Air California and Air Florida.

In the 1950s, new generations of turboprop, then jet, aircraft spurred efficiency, productivity and speed, thereby reducing prices to consumers, while enhancing the margin of safety. Military research and development was a catalyst for technological development, for the World Wars had exhibited their proficiency at delivering bombs and soldiers. Each generation of aircraft was superior to its predecessor in its abilities and its economics. In the 1960s, airlines became even faster and more economical.

The Civil Aeronautics Act was recodified and restructured by the Federal Aviation Act of 1958,[50] which spun off the navigation and safety responsibilities of the CAB into the newly created Federal Aviation Administration [FAA], originally a subsidiary of the U.S. Department of Commerce, and with the creation of the U.S. Department of Transportation [DOT] in 1966, a subsidiary of it.[51] The accident investigation and recommendation responsibilities of the CAB was transferred to the FAA initially, and was redelegated to the National Transportation Safety Board, made independent in 1974.[52] The CAB retained its jurisdiction over economic regulation of the nation's airlines, and was split off from the Commerce Department.[53]

Under economic regulation, America enjoyed the world's finest system of air transport, one envied by every other nation. The time and space continuum, and indeed, the planet, was shrinking. Service and safety were improving. When adjusted for inflation, prices were falling. By the early 1970s, the industry was in a state of crisis. Excessive investment in wide-bodied aircraft (B-747s, DC-10s and L-1011s) had created excessive fleet capacity. That was coupled with an economic recession that suppressed passenger demand, as well as a fuel crisis stimulated by the Arab Oil Embargo of 1973. These events converged to create severe financial turbulence for the industry. The CAB believed that only a stiff dose of regulatory medicine would save the industry from disintegration.

In the early 1970s, the CAB took a number of steps to shore up the economic health of the airlines and avert catastrophe. First, the CAB implicitly entered a "route moratorium", during which not a single new route application was granted.[54] Second, the CAB allowed a number of major

49. Callison, *supra* note 44, at 758. These 86 include U.S. firms given scheduled or supplemental authority to enter domestic, territorial and international markets. *Id.* at n.36.

50. Pub. L. No. 85-625, 72 Stat. 568 (1958).

51. *See* LOWENFELD, *supra* note 2, at I-15.

52. HARDAWAY, *supra* note 31, at 19, 21.

53. *Id.* at 18.

54. Dempsey, *supra* note 34, at 115.

carriers to enter into capacity limitation agreements whereby the number of aircraft flown in major markets was reduced.[55] Third, the major international carriers, Pan Am and TWA, were allowed to swap routes, with TWA exiting the transpacific market, and Pan Am ceding southern Europe.[56] Finally, the CAB imposed rigid pricing regulation.

Thus, the pendulum was pulled sharply toward greater governmental involvement in the airline market. This would be perceived as an anti-consumer movement and opposed by the antitrusters. Sir Isaac Newton noted that for every action, there is an equal and opposite reaction. The pendulum of public policy, having been pulled so sharply toward the regulatory end of the spectrum, would soon come roaring back in the other direction.

E. The Politics of Deregulation

Let us step aside for a moment and point out that regulatory reform and deregulation are not the same thing, although the political movement for the former probably served as a catalyst for the latter. But regulatory reform, as originally conceived, consisted of a modest political agenda for improvement of the regulatory process. There were valid criticisms of government which demanded relief.

It was argued that government had become bloated, fat and lazy. Agencies were headed by political cronies rather than professional managers. Lethargy snuffed out innovation. The time and resources expended in complying with the regulatory labyrinth were excessive, as were the costs to taxpayers.[57] The agencies had allegedly been "captured" by the industries they regulated.[58] The regulatory reform movement, on the whole, seemed to appreciate the important public benefits that government was performing, but advanced a belief that the governmental function could be performed better, more expeditiously and economically. The regulatory reform movement focused largely on means. It called for greater regulatory flexibility to allow the industry to respond to market forces.

In contrast, the deregulation movement focused largely on ends. Deregulators wanted the very heart of the regulatory function amputated from the body politic, and free-market economists provided the intellectual cannon fodder, insisting that airlines were not public utilities, as they

55. *Id.* at 117-18.

56. *See* Paul S. Dempsey, *The International Rate and Route Revolution in North Atlantic Passenger Transportation*, 17 COLUM. J. TRANSNAT'L L. 393 (1978).

57. Paul S. Dempsey, *Market Failure and Regulatory Failure As Catalysts for Political Change: The Choice Between Imperfect Regulation and Imperfect Competition*, 46 WASH. & LEE L. REV. 1, 26 (1989).

58. *Id.* at 27.

had been commonly perceived.[59]

The generation of Americans who grew up during the Great Depression and World War II, saw government as an essential companion — a mechanism for achieving greater social good, protecting the country from threats without and within. For most Americans, the Depression shattered confidence in the theory of laissez faire. But the generation which grew up in the 1960s and 1970s grew up cynical, perceiving government to be a malignant sore. Those on the left abhorred Watergate and the war in Vietnam. Those on the right were offended by the Great Society and high taxes. Both converged on a common path that viewed government with some hostility. That provided the foundation for a bipartisan political movement supporting radically less government.[60]

In the 1960s and 1970s, a number of economists also published literature critical of economic regulation. They criticized the CAB as being captured by the industry it regulated. Said George Stigler, "every industry or occupation that has enough political power to utilize the state will seek to control entry."[61] They argued that regulation had made air transport more expensive than it need be, and that the level of service, although exemplary, was excessive.[62] Principal among their criticisms was that pricing and entry restrictions gave consumers excessive service and insufficient pricing competition, inflated airline costs, and thereby made the industry's profits unsatisfactory.[63] Deregulation would give consumers the range of price and service options they preferred, casting dollar votes of approval to firms which satiated their wants, as Adam Smith's invisible hand did its work. The market would define not only the dividing lines between price and service, but also how many and which

59. *See* RICHARD C. CAVES, AIR TRANSPORT AND ITS REGULATORS: AN INDUSTRY STUDY (1962); GEORGE W. DOUGLAS & JAMES C. MILLER III, ECONOMIC REGULATION OF DOMESTIC AIR TRANSPORT: THEORY AND POLICY (1974).

The Ford Foundation plopped $1.8 million on the Brookings Institution between 1967 and 1975 to study economic regulation, and virtually all of the free-market literature which emanated from it found cause for deregulation. After the Ford money dried up, the emerging right-wing Washington think tanks picked up the gauntlet, including the American Enterprise Institute. MARTHA DERTHICK & PAUL J. QUIRK, THE POLITICS OF DEREGULATION 36-37 (1985).

60. DEMPSEY, *supra* note 40, at xv.

61. Stigler, *The Theory of Economic Regulation* 2 BELL J. ECON. & MGMT. SCI. 6 (1971). *See* HARDAWAY, supra note 31, at 22.

62. *See* Robert M. Hardaway, *Transportation Deregulation (1976-1984): Turning the Tide*, 14 TRANSP. L.J. 101, 136 (1984); Dempsey, *supra* note 34, at 119.

63. As the CAB's John Robson observed, "Only three times in the past 26 years, and never in the past decade, has the industry earned the . . . allowable return on investment." TRAFFIC WORLD (July 18, 1977), at 14. *See* Hardaway, *supra* note 62, at 137; HARDAWAY, *supra* note 31, at 24; JOHN W. SNOW, THE PROBLEM OF AIRLINE REGULATION AND THE FORD ADMINISTRATION PROPOSAL FOR REFORM, REGULATION OF PASSENGER FARES AND COMPETITION AMONG AIRLINES 3 (P. MacAvoy & John W. Snow eds., 1977); STEVEN G. BREYER, REGULATION AND ITS REFORM 200 (1982).

airlines would serve individual city-pair markets.[64]

But the industry was hardly devoid of competition. By the early 1970s, nearly 80% of the nation's scheduled passenger traffic was already competitively served, and in many markets, multiple carriers had been certificated.[65] Although the big four airlines (i.e., United, American, TWA and Eastern) controlled 82% of the market in 1938, their share declined to 68% by 1950, 66% in 1960, and 62% in 1970.[66] By 1978, the market share of the top four had fallen to 59%.[67] Although pricing competition was somewhat constrained, airlines were free to compete in terms of schedules, equipment, capacity and facilities in response to consumer choices.

On Capitol Hill, the opening salvo was fired by Teddy Kennedy in hearings he conducted as Chairman of the Senate Judiciary Subcommittee on Administrative Practice and Procedure.[68] These hearings served as the political genesis of Congressional reform, jumping the gun on bills pending before the Senate Commerce Committee, the committee which actually had appropriate subject matter jurisdiction.[69] Kennedy began the hearings by saying, "Regulators all too often encourage or approve unreasonably high prices, inadequate service, and anticompetitive behavior. The cost of this regulation is always passed on to the consumer. And that cost is astronomical."[70]

After extensive hearings in 1974 and 1975, the Kennedy staff released a comprehensive report on the Subcommittee's behalf. The Kennedy Report concluded that deregulation would allow pricing flexibility which would stimulate new innovative service offerings, increase industry health, allow passengers the range of price and service options dictated by consumer demand, enhance carrier productivity and efficiency, and

64. *See* Dempsey, *supra* note 34, at 122.

65. James W. Callison, *Airline Deregulation — Only Partially a Hoax: The Current Status of the Airline Deregulation Movement*, 45 J. AIR L. & COM. 961, 967 (1980).

66. *See* LOWENFELD, *supra* note 2, at I-21.

67. It would fall to 56% by 1983. Hardaway, *supra* note 62, at 143 [citation omitted].

68. Kennedy had been persuaded by subcommittee counsel Stephen Breyer that airline regulation was ripe for attack on behalf of consumers. DERTHICK & QUIRK, *supra* note 59, at 40. Breyer had previously been a Harvard Law Professor, and Brookings had published his book calling for natural gas deregulation. STEVEN G. BREYER & PAUL W. MACAVOY, ENERGY REGULATION BY THE FEDERAL POWER COMMISSION (1974). Breyer would go on to become a federal judge; but for the moment, airline deregulation was his crusade, and the Civil Aeronautics Board was his enemy. Jurisdictionally, it was an odd thing for a Judiciary subcommittee to take up airlines or their regulation, for there was an aviation subcommittee already established under the Senate Commerce Committee chaired by Howard Cannon. Nevertheless, Kennedy charged ahead.

69. Callison, *supra* note 65, at 963 n.4. Senator Howard Cannon, Chairman of the Senate Commerce Committee, introduced a number of bills considered in committee beginning in 1976. *Id.*

70. DERTHICK & QUIRK, *supra* note 59, at 41.

result in a superior allocation of society's resources.[71] Regulated prices were estimated to be some 40% to 100% higher than they should be.[72] Deregulation, it was asserted, should drive prices down to costs.[73]

Many carriers and observers argued that the net result of deregulation would be deleterious to the industry in the short term, and in the long run injure the public it serves. The Kennedy Subcommittee's disagreed:

> The major arguments against allowing freer entry and greater price competition rests upon the fear of : 1) predatory pricing; 2) destructive competition; 3) monopolization; 4) reduced service to small communisms [sic]; 5) destruction of the existing air service network; 6) reduced safety standards; and 7) greater financing difficulties. The subcommittee examined each of these claims.
>
> In the subcommittee's view there is no substantial historical, empirical, or logical reason for believing that increased reliance upon competition would lead to predatory pricing, destructive competition, or risk of monopolization.[74]

With Richard Nixon's resignation in 1974, Gerald Ford became President. After pardoning Nixon, Ford's immediate domestic problem was inflation. He believed that government was a major contributor to inflation.[75] Ford embraced deregulation in his Presidential campaign:

> By the spring of 1975, Ford was speaking of regulatory reform as if it were an end in itself, not just one element in an anti-inflation program, and he was rationalizing it on grounds that mixed popular culture, individual psychology and economics . . . .
>
> [W]hereas Senator Kennedy had hewed consistently to a proconsumer theme, Ford's criticisms of regulation were variously addressed to consumer interests, business interests, the traditional American attachment to free enterprise, and popular hostility to big government. Mass distrust of government was growing, and so was resentment of the costs of supporting it and bearing its intrusion on private activity. A policy stance that promised to reduce government activity therefore had some potential for mass appeal (and some potential utility for a president who would soon be asking the national electorate to return him to office).[76]

F. THE AIRLINE DEREGULATION ACT OF 1978

With the inauguration of Jimmy Carter as President in 1976, the

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71. Dempsey, *supra* note 34, at 114-18.

72. CIVIL AERONAUTICS BOARD PRACTICES AND PROCEDURES, REPORT OF THE SUBCOMM. ON ADMINISTRATIVE PRACTICE AND PROCEDURE OF THE SENATE JUDICIARY COMM., 94th Cong., 1st Sess. 189 (1975) [hereinafter CAB PRAC. & PROC.]. Another study asserted that prices were between 45% and 84% higher than they would be without regulation. Keeler, *Airline Regulation and Market Performance*, 3 BELL J. ECON. & MGMT. 399, 421 (1972).

73. Hardaway, *supra* note 62, at 145.

74. CAB PRAC. & PROC., *supra* note 72, at 4.

75. DERTHICK & QUIRK, *supra* note 59, at 45.

76. *Id.* at 46-47.

movement had a firm disciple in the White House. Convinced by his staff that he could exploit the deregulation movement and make a "quick hit" politically, Carter embraced the deregulation movement even more strongly than his predecessor.[77]

Carter became a true believer in the deregulation of airlines, trucking and railroads. It was he who championed, then signed into law, the Air Cargo Deregulation Act of 1977, the Airline Deregulation Act of 1978, the Staggers Rail Act of 1980, and the Motor Carrier Act of 1980. It was he who appointed individuals strongly wedded to deregulation to the regulatory agencies — Alfred Kahn, Elizabeth Bailey, and Marvin Cohen to the CAB, and Darius Gaskins, Marcus Alexis and Tad Trantum to the ICC — known affectionately in each agency as the Three Marketeers.[78]

In 1977, Jimmy Carter tapped economist Alfred Kahn to serve as Chairman of the CAB. As Chairman of the New York Public Utilities Commission, Kahn had advocated deregulation before the Kennedy Subcommittee.[79]

Kahn criticized traditional CAB regulation as having "(a) caused air fares to be considerably higher than they otherwise would be; (b) resulted in a serious misallocation of resources; (c) encouraged carrier inefficiency; (d) denied consumers the range of price/service options they would prefer, and; (e) created a chronic tendency toward excess capacity in the industry."[80]

Being an economist, he was free of the fidelity to law held by his predecessor at the CAB, John Robson. Robson was Gerald Ford's CAB Chairman, and a lawyer. Being a lawyer, Robson felt constricted by his oath of office to roam only within the perimeters of the governing legislation, the Federal Aviation Act of 1958. The legislation would allow modest liberalizations, but no more. As CAB Chairman, Kahn would proceed a great deal farther down the path of laissez faire than could Robson.[81]

As CAB Chairman, Kahn implemented a number of revolutionary der-

77. Callison, *supra* note 65, at 963 n.4.

78. *See* Paul S. Dempsey, *The Interstate Commerce Commission: Disintegration of An American Legal Institution*, 34 AM. U. L. REV. 1 (1984).

79. Kahn had previously, and would subsequently, serve as a free-market economics professor at Cornell. He would subsequently serve as a member of the board of New York Air, a subsidiary of Frank Lorenzo's Texas Air.

80. *Quoted in* DEMPSEY, supra note 1, at 24.

81. *See* Dempsey, *supra* note 34, at 118-19. Kahn loved to hold court. He used the opportunities of the Sunshine Act to hold most CAB meetings public, and the media loved his performance. Kahn made sessions at the CAB more than the public meetings that by law they now must be; he consciously made them public performances, a form of theater, at which the audience — the general press, the trade press, the industry, the CAB staff — watched him pursue with his pedagogue's passion for reasoned inquiry the question of why airline regulation was as it was and why it could not be done differently. DERTHICK & QUIRK, *supra* note 59, at 87.

egulatory initiatives which liberalized entry and pricing.[82] Soon carriers were authorized to enter new markets, and offer consumers significant discounts over previous levels. The immediate results appeared overwhelmingly successful, with carriers in the late 1970s stimulating new demand by offering low fares, filling capacity, and enjoying robust profits.

This was the first taste of regulatory reform for the airline industry, and it appeared to be an immediate success. The rigid regulatory structure of the preceding decade had so shackled carriers that they were unable to tap the elasticities of demand to fill seats that otherwise would fly empty. As a consequence, capacity was not being filled, and airline profitability was weak.

Regulatory reform would change all that. By lowering prices, airlines were able to lure discretionary (vacation) travelers to fill seats which had theretofore flown empty. Consumers enjoyed a bonanza of lower fares. Airlines were able to fill empty capacity, and with an upturn in the economy, enjoyed higher profits.[83] Regulatory reform appeared to be a win-win proposition. Politicians from both parties and from a wide spectrum of ideologies jumped on the deregulation bandwagon. If some regulatory reform was good, it was thought, then more will be better.

Kahn was quick witted, articulate, and could charm an overcoat off a freezing man. Working with the White House, Kahn put his charismatic personality solidly behind the legislative effort for reform. Kahn found allies in Federal Express and United Airlines, the latter the largest airline in the free world.

Federal Express had been held back for years by the CAB's desire to protect the passenger carriers, which enjoyed incremental profits on cargo carried in the belly. Operating largely under exemptions for small aircraft, Federal had been prohibited from flying the larger aircraft which would reduce unit costs. United, the largest airline before and during the four decades of regulation, but whose market share had fallen under regulation (from 22.9% in 1938 to 22.0% in 1976),[84] felt that the CAB nurtured the health and well-being of the smaller airlines to its detriment. The CAB had effectively stopped granting new routes to the largest trunk air-

82. *See, e.g., Oakland Service Case*, CAB Order 78-4-121 (1978), CAB Order 78-9-96 (1978); *Improved Authority to Wichita Case*, CAB Order 78-3-78 (1978).

83. "These CAB actions happened to coincide with an upturn in the economy and the consequent return of prosperous times to the airline industry — a rapid traffic growth and increasing profits. This quasi-deregulation by the CAB was given credit by many for this airline prosperity. There is good reason to question the causal connection between these CAB policies and the favorable economic results which the industry experienced at that time, but the conditions helped Senator Cannon move a strong deregulation bill through the Senate in early 1978." Callison, *supra* note 65, at 964 n.4.

84. Dempsey, *supra* note 34, at 115.

lines by the 1970s.[85] United perceived itself big enough to grow and prosper in a deregulated regime.

Congress responded by promulgating the Air Cargo Deregulation Act of 1977[86] (known in Washington as the Federal Express Act, both for the speed by which it flew through Capitol Hill and the identity of its principal sponsor) and, in the closing hours of the 95th Congress, the Airline Deregulation of 1978.[87]

The Air Cargo Deregulation Act included a rather clever provision allowing established air cargo companies a one year moratorium (from November 1977 to November 1978) during which they were free to enter any domestic markets of their choice; new entrants would be free to enter only after that period. Thus, established carriers like Federal Express expanded during that year to dominate the industry. Although "fitness" remains a requirement of entry, tariff filing requirements were eliminated in 1979.[88]

The Airline Deregulation Act of 1978 called for a gradual transition from regulation to competition, eliminating most entry controls (except "fitness") on December 31, 1981, and domestic rate regulation on December 31, 1982.[89] The Act also included an unprecedented provision mandating the extermination (a/k/a "sunset") of the U.S. Civil Aeronautics Board on December 31, 1984, — the first major federal agency to be obliterated in the nation's history.[90]

The legislation received overwhelming bipartisan support, which was surprising in that the bills were advanced from the top down; they had no widespread grass-roots support among the people.[91] Indeed, public opinion polls revealed that in 1978 Americans ranked airlines among the very top of all industries in terms of customer satisfaction and confidence.[92] One industry executive who supported immediate deregulation conceded that four decades of regulation ". . . did produce the world's foremost air transportation system, with more service in more markets by more carriers with more competition with greater variety of lower rates

85. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 50.

86. Pub. L. 95-163; 91 Stat. 1285 (Nov. 9, 1977).

87. Pub. L. 95-504; 92 Stat. 1705 (Oct. 24, 1978).

88. *See generally* R. SAMPSON, M. FARRIS & D. SHROCK, DOMESTIC TRANSPORTATION 294 (1990).

89. DEMPSEY & THOMS, *supra* note 7, at 29.

90. This was the work of Rep. Elliot Levitas of Georgia, described as "the staunchest advocate of real deregulation on either side of Congress." Callison, *supra* note 65, at 964 n.4.

91. "The absence of a significant public role throughout this period is a most interesting facet of the airline deregulation movement. The impetus for change came almost entirely from the academics and politicians; the public never did call for deregulation of the airline industry." Callison, *supra* note 65, at 964 n.4.

92. *Id.*

and fares than existed anywhere else on earth."[93]

The predictions as to what deregulation would bring were quite optimistic, in spite of strong misgivings by most industry executives. CAB Chairman Alfred Kahn characterized the opposition as follows: "The most general fear about [deregulation] is that when the CAB withdraws its protective hand from the doorknob, the door will open to destructive competition — to wasteful entry and cut-throat pricing — that will depress profits, render the industry unable to raise capital, and so cause a deterioration in the service it provides — on the whole, it must be admitted good service."[94] Kahn saw the fear as unrealistic.

What about the prediction by many industry experts that deregulation would depress industry profits, discourage investment and the introduction of more technologically sophisticated aircraft, and lead to a deterioration of service, causing the industry ultimately to gel into a national oligopoly, or in many markets, a monopoly?[95] Deregulation's proponents saw destructive competition as limited to circumstances where "capital is long-lived and immobile, and through miscalculation competitors irretrievable commit too much to a particular market . . ."[96] a situation not thought to exist in the airline industry because of the mobility of its resources.[97] Concentration was also thought unlikely because: (1) barriers to entry were perceived low; (2) economies of scale were relatively insignificant; and (3) markets would be contestable — the three legs of the theoretical stool.[98]

According to Alfred Kahn, "almost all of this industry's markets can support only a single carrier or a few: their natural structure, therefore, is monopolistic or oligopolistic. This kind of structure could still be conducive to highly effective competition if only the government would get out of the way; the ease of potential entry into those individual markets, and the constant threat of its materializing, could well suffice to prevent monopolistic exploitation."[99] Kahn and his free market brothers saw few economies of scale or economic barriers to entry in the airline industry.[100] The

93. *Id.* at 968.
94. Alfred E. Kahn, Talk to the New York Society of Security Analysts 14 (Feb. 2, 1978).
95. Dempsey, *supra* note 34, at 130-33.
96. *Oakland Service Case*, CAB Order 78-3-78 (1978), at 26.
97. Dempsey, *supra* note 34, at 130-31.
98. Others disagreed, arguing that given the capital requirements of air transportation and the interrelationship of traffic flows which place a premium on the ability of a carrier to marshall traffic support from as many sources as possible, incumbent airlines could deter new entry by demonstrating they would respond sharply and swiftly to the inauguration of new service. Because potential entry could be deterred by potential response, the elimination of competition through the employment of predatory tactics would be economically rational. Dempsey, *supra* note 34, at 132.
99. Kahn, *supra* note 94, at 24.
100. CAVES, *supra* note 59; D. GILLEN ET AL., AIRLINE COSTS AND PERFORMANCE: IMPLICA-

CAB staff noted, "There are no structural traits inherent in domestic air transportation which indicate superior performance by large-size firms; nor are there traits which would significantly inhibit the entry of new firms into the industry."[101] Deputy DOT Secretary John Snow agreed: "The evidence suggests very strongly that the optimal size of firms will be sufficiently small so that there will be room for a considerable number of competitive firms in the industry."[102] Hence entry, or the threat of potential entry, would keep monopolists from extracting monopoly profits.[103] This was the theory of contestable markets, upon which deregulation was largely premised.[104] Essentially, should a monopolist or oligopolist begin to earn supercompetitive profits, new entrants should be attracted like sharks to the smell of blood.

The absence of barriers to entry would also subdue incentives for larger airlines to engage in predatory pricing to drive their weaker or smaller rivals out. It was believed irrational for a carrier to engage in predatory pricing.[105]

Kahn was optimistic that the benefits of deregulation would be universally shared: "I am confident that . . . consumers will benefit; that the communities throughout the nation — large and small — which depend upon air transportation for their economic well being will benefit, and that the people most closely connected with the airlines — their employees, their stockholders, their creditors — will benefit as well."[106]

In the late 1970s, the immediate results of deregulation seemed quite positive, and created a general euphoria in Washington and in the media that Congress had chosen the right path. In the short term, air fares plummeted (a bonanza for consumers) while carrier profits soared as low

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TIONS FOR PUBLIC AND INDUSTRY POLICIES (1985). *See also* TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 25. Predictions that the industry would become more highly concentrated under deregulation ". . . rest on two false assumptions: 1) barriers to entry are relatively high, and 2) there are significant economies of scale and decreasing costs. Economic barriers to entry are relatively low in the airline industry. The most important barriers have been legal barriers enforced by the CAB. Economic barriers pale by comparison. . . . Economies of scale are relatively low in the airline industry; in fact, there are significant diseconomies of scale." Hardaway, *supra* note 62, at 141, 142 [citation omitted].

101. STAFF OF THE CIVIL AERONAUTICS BOARD, REGULATORY REFORM 125 n.1 (1975).

102. John W. Snow, *Aviation Regulation: a Time for Change*, 41 J. AIR L. & COM. 640 (1975).

103. *Id.* at 648. *See* Kahn, *supra* note 94, at 26.

104. *See* Elizabeth E. Bailey & J. Panzar, *The Contestability of Airline Markets During the Transition to Deregulation*, LAW & CONTEMP. PROBS. 125, 129 (1981); Elizabeth E. Bailey & William I. Baumol, *Deregulation and the Theory of Contestable Markets*, 1 YALE J. ON REG. 111 (1984); WILLIAM I BAUMOL ET AL., CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE (1982).

105. BREYER, REGULATION AND ITS REFORM, supra note 63, at 30; Hardaway, *supra* note 62, at 142 [citation omitted].

106. Statement of Alfred E. Kahn Before the Aviation Subcommittee of the House Public works and Transportation Committee on H.R. 11145, 8 (Mar. 6, 1978)

fares led discretionary travelers to fill seats which otherwise might have flown empty. But in the fourth quarter of 1978, long before the recession of the 1980s, carrier profits began to plummet into a sea of red ink; the airline industry suffered the worst losses in the history of domestic aviation.

G. IMPLEMENTATION OF DEREGULATION

As noted above, the Airline Deregulation Act of 1978 was intended to provide a gradual transition to deregulated domestic entry and rates, with entry regulation ending on January 1, 1982, and entry regulation ending January 1, 1983. But the CAB quickly dropped any notion of "gradual" deregulation under Chairman Marvin Cohen.[107] Implementation of the new policy was immediate and comprehensive.[108]

The Airline Deregulation Act also called for the "sunset" of the CAB in 1985, when its remaining responsibilities were transferred to the U.S. Department of Transportation.[109] Those primarily involved the regulation of international routes and rates, small community subsidies, and mergers. The latter was transferred to the U.S. Department of Justice in 1989, following serious public criticism of DOT's approval of each of the 21 merger proposals that had been submitted to it during its brief reign over the matter.[110]

H. CONSEQUENCES OF DEREGULATION

It is difficult to ascribe the contemporary condition of the industry to deregulation, for so many other factors influence its product and condition — e.g., inflation or recession and their impact on passenger and cargo demand, airport infrastructure, and fuel costs. Nonetheless, widespread costs and benefits have been alleged.

Perhaps the most consistent theme expressed by deregulation's proponents is that deregulation has caused a significant decline in fares. For example, Steven Morrison and Clifford Winston of the Brookings Institution maintain that price savings have resulted in consumer savings amounting to some $6 billion a year.[111] About $4 billion of that is attrib-

107. Kahn had left the CAB to become President Carter's "Inflation Czar", where he presided over the highest levels of inflation in peacetime history.

108. Dempsey, *supra* note 34, at 117-18.

109. Authority over antitrust was scheduled to vest in the Justice Department in 1985 under the terms of the Airline Deregulation Act of 1978. However, the CAB Sunset Act of 1984 gave it to the DOT. That lasted until 1989, when Congress took it from DOT and gave it to DOJ. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 30.

110. Paul S. Dempsey, *Antitrust Law and Policy in Transportation: Monopoly $ the Name of the Game*, 21 GA. L. REV. 505, 510-47, 588-99 (1987).

111. S. MORRISON & C. WINSTON, THE ECONOMIC EFFECTS OF AIRLINE DEREGULATION (1986).

uted to business traveler time savings because of more frequencies.

This has been a matter of some controversy. Some maintain that the hub-and-spoke phenomenon has caused the air transport system to become decidedly slower because both of circuitous routings, congestion, and delays at hub airports necessitated by passenger transfers. Moreover, much of the pro-deregulation literature fails to mention the pre-deregulation trend of declining fares which preceded 1978.[112] In fact, except for a period of sharp fare declines from 1976 to 1979, fuel and inflation adjusted fares fell at a 30% faster rate in the decade preceding deregulation than in the decade subsequent to it.[113] Both sides tend to agree that pre-deregulation price declines were driven by productivity improvements resulting from technological breakthroughs of aircraft. Each generation of aircraft is more efficient in terms of fuel consumption and passenger cost. Deregulation proponents insist that most of the major technological breakthroughs occurred prior to deregulation, and attribute ticket price declines to deregulation itself.

Recent literature shows a decline in the rate of airline productivity growth after 1978.[114] Deregulation critics point out that the pre-deregulation trend of flying increasing numbers passengers nonstop in wide-bodied aircraft (Boeing 747s, McDonnell-Douglas DC-10s, and Lockheed L-1011s) was aborted with the development of hubs-and-spokes, which require smaller planes with higher seat mile costs.[115] Hubbing also burns more fuel and consumes more labor and time.

Whatever the truth on whether deregulation has benefitted consumers, its impact on the industry itself has been profound. By 1992, the airline industry had suffered more than 150 bankruptcies, 50 mergers, and lost all the profit it had made since the Wright Brothers flight at Kitty Hawk, plus $1.5 billion more. Alfred Kahn, on balance still a defender of deregulation, admits, "There is no denying that the profit record of the industry since 1978 has been dismal, that deregulation bears substantial responsibility, and that the proponents of deregulation did not anticipate such financial distress—either so intense or so long-continued."[116]

Since deregulation, national and regional concentration have reached unprecedented levels, although most city-pair markets were

112. *See* Brenner, *Rejoinder to Comments By Alfred Kahn*, 16 TRANSP. L.J. 253, 254 (1988).

113. PAUL S. DEMPSEY, FLYING BLIND: THE FAILURE OF AIRLINE DEREGULATION 29-30 (1990).

114. Brenner, *Airline Deregulation — A Case Study in Public Policy Failure*, 16 TRANSP. L.J. 179, 220 (1988). R. Gordon, *Productivity in the Transportation Sector* (unpublished monograph 1991).

115. *See* Brenner, *id.* at 217-18 (1988); Paul S. Dempsey, *The Disintegration of the United States Airline Industry*, 20 TRANSP. L.J. 9, 23 (1991).

116. Alfred E. Kahn, *Airline Deregulation — A Mixed Bag, But A Clear Success Nevertheless*, 16 TRANSP. L.J. 229, 248 (1988) [citations omitted].

served by more carriers than before. One source describes five major issues of concern of airline deregulation:

- The competitiveness of the industry (its effects on the fares and level of service provided to consumers today and the prospects of reduced competition from further industry concentration).
- The long-term financial stability of the industry.
- Possible discrimination against consumers of different types or in different parts of the country.
- The safety provided to the public by airlines and the FAA, and
- The ability of the federal government to respond to airport and airway capacity constraints.[117]

Because performance of the industry under deregulation has deviated significantly from the economic model of near perfect competition predicted, some of deregulation's early proponents have reevaluated their hypotheses. Michael Levine, among the most staunch early proponents of deregulation, and whose early literature on the subject found no economies of scale of significance in commercial aviation,[118] has more recently developed a theoretical justification for and found the existence of substantial economies of scale and scope in the industry.[119]

The early economics literature also emphasized the potential contestability of airline markets. Subsequent evaluation of commercial aviation finds little evidence of contestability.[120] As Charles Rule, Assistant Attorney General for Antitrust observed, "[M]ost airline markets do not appear to be contestable, if they ever were. . . . [D]ifficulties of entry, particularly on city-pairs involving hub cities, mean that hit-and-run entry is a theory that does not comport with current reality."[121]

III. THE CONTEMPORARY AIRLINE INDUSTRY — FROM A TO Z

A. *AIRCRAFT*

Aircraft is the single most important manufacturing export produced in the United States. The Congressional Research Service has estimated that for every dollar in aircraft exports, the U.S. economy increases by $2.30; for every billion dollars in aircraft exports, U.S. employment grows

117. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 43.

118. Note, *Is Regulation Necessary? California Air Transportation and National Regulatory Policy*, 74 YALE L.J. 1416 (1965).

119. Michael Levine, *Airline Competition in Deregulated Markets: Theory, Firm Strategy, and Public Policy*, 4 YALE J. ON REG. 393 (1987). TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 25.

120. E. BAILEY & D. KAPLAN, DEREGULATING THE AIRLINES (1985); Bailey & Williams, *Sources of Economic Rent in the Deregulated Airline Industry*, 31 J.L. & ECON. 173 (1988); Levine, *id.* at 405-25. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 25.

121. Charles Rule, Antitrust and Airline Mergers: A New Era 15, 18, Address before the International Aviation Club, Washington, D.C., (Mar. 7, 1989).

by 35,000 jobs.[122] In 1990, U.S. manufacturers exported $16.7 billion in aircraft, while the United States imported only $737 million worth of planes.[123]

Boeing is the largest commercial aircraft manufacturer, accounting for 47% of the market in 1990, followed by Airbus with 35%, and McDonnell Douglas with 17%.[124] Lockheed exited the commercial aircraft industry in 1981, after losing $2.5 billion making L-1011 TriStars.[125]

As 1991 drew to a close, the aircraft manufacturers had the following orders outstanding.

AIRCRAFT ORDERED, DELIVERED, BACKLOGGED[126]
(cumulative, as of December 31, 1991)

CARRIER/AIRCRAFT TYPE	ORDERS	DELIVERIES	BACKLOG
AIRBUS INDUSTRIE			
A300	457	364	93
A310	251	200	51
A320	661	251	410
A330	143	0	143
A340	115	0	115
Total	1,767	815	952
BOEING			
707	1,010	1,008	2
737	2,929	2,184	745
747	1,160	892	268
757	766	413	353
767	597	404	193
777	76	0	76
Total	6,538	4,901	1,637
BRITISH AEROSPACE			
BAe 146 RJ70/80	229	191	38
CANADAIR			
Regional Jet	38	0	38
Fokker 100	248	103	145
MCDONNELL DOUGLAS			
MD-80	1,137	964	173
MD-90	61	0	61
MD-11	172	34	138
Total	1,370	998	372
GRAND TOTAL	10,190	7,008	3,182

122. *Congressional Study Concludes Airbus Injuring Boeing, Douglas*, AVIATION DAILY, Feb. 20, 1992, at 303, 304.

123. Mark Wartzman & Carey Wartzman, *A McDonnell Deal in Asia Would Jolt the Airliner Industry*, WALL ST. J., Nov. 15, 1991, at 1.

124. *Airbus Captures 35 Percent of Big Transport Market in 1990*, AVIATION DAILY, Jan. 10, 1991, at 61.

125. *Will Boeing's Tail Turn White?*, ECONOMIST, Apr. 13, 1991, at 61.

126. *Jet Orders, Cancellations, Net Orders and Delivery Summary*, AVIATION DAILY, Feb. 6, 1992, at 227.

Airbus is owned and subsidized by several European governments. Airbus' growth has been robust. Its market share climbed from 16% in 1988 to 22% in 1989.[127] U.S. aircraft manufacturers have complained about the $10 billion to $20 billion in subsidies given Airbus by several European governments.[128] The United States claims that subsidies to Airbus total more than $13.5 billion, or $19.4 billion if interest costs are added.[129] Alleged dumping of aircraft has led Commerce Department officials to suggest that the U.S. might escalate its dispute under the General Agreement on Trade and Tariffs, impose duties on other European products, or take other anti-dumping measures.[130]

McDonnell Douglas enjoyed an average of 23% of the commercial aircraft market over the past half century. But by 1991, McDonnell Douglas' market share had fallen to 17%.[131] In 1991, financially troubled McDonnell Douglas Corp. announced its intention to sell 40% of its commercial manufacturing operations to Taiwan Aerospace Corp. for about $2 billion.[132] McDonnell needed the infusion to assist its development of the MD-12, a 400 seat wide-bodied tri-jet which would compete with Boeing's 747. Currently, it produces only the narrow-body MD-80 and wide-body MD-11 (later versions of the DC-9 and DC-10, respectively).[133]

Some sources predict that worldwide traffic will double by the year 2005, requiring some 600 new aircraft a year.[134] If so, the global commercial airline industry will need nearly 9,000 new aircraft through the year 2005, at a cost of some $617 billion.[135]

Boeing predicts that the world's airlines will take delivery of nearly 6,000 new jets, worth about $380 billion, by the year 2000, and buy another $500 billion of new aircraft in the decade after that.[136] Passenger traffic is estimated to grow 5% a year for the next two decades (it grew 7% a year in the two decades preceding 1990.[137] Others see worldwide traffic slowing to between 3%-5%, half its previous rate.[138]

Much concern has been levied at the age of the U.S. fleet, the oldest

127. *Airbus Captures 35 Percent of Big Transport Market in 1990*, *supra* note 124, at 61.
128. Wartzman, Carey & Mark, *supra* note 123, at A9.
129. *U.S., EC Escalate Battle Over Airbus Exchange Rate Subsidy*, AVIATION DAILY, Feb. 15, 1991, at 311.
130. Cole, *Airbus's Lease Terms on Delta Jet Order May Inflame U.S.-Europe Trade Tension*, WALL ST. J., Mar. 12, 1992, at A3.
131. Wartzman, Carey & Mark, *supra* note 123, at 1.
132. *Id.*; *Will They Ever Fly Again*, ECONOMIST, Mar. 7, 1992, at 67.
133. Wartzman, Carey & Mark, *supra* note 123, at A9.
134. *Will Boeing's Tails Turn White?*, *supra* note 125, at 61.
135. *Intelligence*, AVIATION DAILY, Feb. 25, 1991, at 369.
136. *Will They Ever Fly Again*, *supra* note 132, at 67.
137. *Id.*
138. James, *Airline Economics in the Year 2000*, IATA REV., Apr. 1991, at 20, 21.

in the developed world. The economic design life of a typical aircraft is 20 years or 60,000 cycles.[139] Thirty-one percent of the U.S. fleet exceeds the economic design goals originally set by the manufacturers.[140] By 1989, 32% of the U.S. fleet was more than 20 years old, the GAO predicts 64% will be by the year 2000.[141] Aircraft corrosion and structural fatigue have been a factor in at lease 36 aviation accidents since 1983.[142]

AVERAGE FLEET AGES IN YEARS[143]

AIRLINE	NUMBER OF AIRCRAFT 1990	AVERAGE AGE 1989	1991
American	510	9.4	9.6
Continental	331	11.0	13.5
Delta	421	8.7	8.6
Eastern	177	13.8	15.3
Northwest	326	14.1	15.6
Pan Am	162	12.8	15.9
TWA	213	14.3	16.6
United	443	13.6	12.1
USAir	453	9.0	9.3

By the time of Pan Am collapsed in December 1991, the average age of its fleet had grown to 18 years.[144] In contrast, the average age of Singapore Airlines' fleet is only four years and nine months.[145] Japan Air Lines' fleet is 8.6 years old, still younger than any U.S. airlines.[146]

In 1990, concern over aircraft noise led Congress to promulgate legislation banning most of the 2,300 Stage Two aircraft in the U.S. fleet from U.S. airports by the end of 1999. Waivers can be granted until the end of the year 2003 if the airline has 85% of its fleet satisfying Stage Three

139. Brannen, *The Problem of Aging Aircraft: Is Mandatory Retirement the Answer?*, 57 J. AIR L. & COM. 425, 433 (1991).

140. *GAO, Testimony of Kenneth Mead Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation: Meeting the Aging Aircraft Challenge* (Oct. 10, 1989); *The Financial Condition of the Airline Industry and the Adequacy of Competition: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 102nd Cong., 2d Sess. 550-72 (1991) (statement of Kenneth Mead).

141. Brannen, *supra* note 139, at 432 n.42.

142. *Id.* at 425-26.

143. WALL ST. J., Mar. 31, 1989, at B1; AVIATION DAILY, Aug. 1, 1991, at 209. The number of aircraft was taken from an Appendix to a Memorandum for the Honorable James L. Oberstar from Samuel K. Skinner (Oct. 25, 1990).

144. *Bulk of Pan Am Fleet Owned by Other Companies*, AVIATION DAILY, Dec. 6, 1991, at 412.

145. *Singapore Airlines 747-400 Orders Near $10 Billion Mark*, AVIATION DAILY, Mar. 18, 1991, at 501.

146. *Global Dogfight: World's Major Airlines Scramble to Get Ready for a World-Wide Competitive Battle*, WALL ST. J., Jan. 14, 1992, at A9.

requirements by July 1, 1999.[147] This raises significant concerns among U.S. carriers whose fleets are aging. The following chart reveals the proportion of each major airline's fleet in Stage Two.

PERCENTAGE OF FLEETS IN STAGE TWO AIRCRAFT (1991)[148]

American	34%
Continental	50%
Delta	54%
Eastern	70%
Northwest	65%
Pan Am	60%
TWA	55%
United	49%
USAir	55%

In regulations promulgated in 1991, the FAA gave the airlines the option of complying either by adding Stage Three aircraft to their fleets, or reducing the number of Stage Two planes. The FAA timetable calls for the phaseout of 25% of Stage Two aircraft by the end of 1994, a 50% reduction by the end of 1996, and a 75% reduction by the end of 1998. Their fleets must be 100% Stage Three by Dec. 31, 1999, except for a few limited waivers. However, the FAA failed to preempt local airports which impose phaseout schedules more stringent than the federal schedule.[149]

The phasing out of Stage Two aircraft mandated by the year 2000 is estimated to cost as little as $880 million (about 25 cents per passenger, according to the Federal Aviation Administration [FAA]) $2.1 billion (according to the U.S. General Accounting Office [GAO]), or as much as $100 billion (according to the Air Transport Association [ATA]).[150] The lower estimates are based on compliance solely by hushkitting, and the larger estimate assumes replacing all Stage Two with new Stage Three aircraft.[151]

In the late 1980s, major carriers placed massive orders for new aircraft. In 1986, Northwest ordered 50 Airbus A320s for $3.2 billion; in

147. *Congress Mandates Phaseout of Stage 2 Aircraft By End of Century*, AVIATION DAILY, Oct. 30, 1990, at 201.

148. *Stage 2 Fleets*, AVIATION DAILY, Sept. 25, 1991, at 568.

149. *Airlines Can Grow to Stage 3 Compliance; Preemption Left to the Courts*, AVIATION DAILY, Sept. 25, 1991, at 567-68.

150. *GAO Says Costs of Stage 2 Phaseout Much Lower than Industry Forecasts*, AVIATION DAILY, July 18, 1991, at 105; *Airlines Can Grow to Stage 3 Compliance; Preemption Left to the Courts*, supra note 149, at 567-68.

151. *Airlines Can Grow to Stage 3 Compliance; Preemption Left to the Courts*, supra note 149, at 567-68.

1989, it ordered 90 aircraft worth $5.2 billion.[152] In 1988, Delta ordered 215 jets, expanding that to 260 the following year.[153] By 1992, Delta had 549 jets in its fleet, and another 454 on order or option.[154] In 1989, United placed a record $15.7 billion order for 370 Boeing 737s and 757s; American ordered 561 planes, totaling $14.5 billion.[155]

But the industry reversed itself in the early 1990s. Nearly 140 jet orders were canceled in 1991, the largest number of cancellations since 1982. Total new orders for 1991 were only 467, the worst year since 368 orders were placed in 1984.[156] Only $32 billion in new planes were ordered, compared to $90 billion in 1989.[157] By 1992, more than 1,000 aircraft, about 10% of the world's commercial fleet, was parked in deserts or on the edge of airports.[158]

American Airlines cut its five-year capital spending program by $8 billion, from $21 billion to $13 billion.[159] In early 1992, United announced the cancellation of orders for 122 Boeing aircraft, mostly 737s and 757s, used in its domestic system, cutting its spending on aircraft by 22% between 1992 and 1995, and cutting capital spending by $6.7 billion, down from nearly $19 billion; United still intends to take delivery on 156 planes from 1992-1995, including many wide-bodied aircraft to serve its international routes.[160] Some analysts anticipate that the cut in capacity may enhance carrier profitability.[161]

Excessive capacity is seen is among the most significant problems facing the airline industry.[162] Post deregulation load factors climbed to 60% from the 54% it averaged in the 1971-78 period.[163] However the break-even level increased from 53% in the pre-deregulation period to 62% after it.[164] But by 1991-92, load factors had fallen to the pre-dereg-

152. Nomani, *NWA to Unveil Major Order With Boeing*, WALL ST. J., Oct. 11, 1989, at A4.

153. Waldman & Wartzman, *Delta Air Sets Orders, Options for $10 Billion*, WALL ST. J., Nov. 15, 1989, at A3.

154. Cole, *Airbus's Lease Terms on Delta Jet Order May Inflame U.S.-Europe Trade Tension*, WALL ST. J., Mar. 12, 1992, at A3.

155. O'Brian & Valente, *Crandall's American Is Unlikely Recipient of $8 Billion Trump Bid*, WALL ST. J., Oct, 6, 1989, at 1.

156. *Aircraft 1991 Order Cancellations Highest In a Decade*, AVIATION DAILY, Jan. 24, 1992, at 149.

157. *Will They Ever Fly Again?*, supra note 132, at 67.

158. *Id.*

159. Pulley & Harris, Jr., *UAL to Trim Capital Outlays by $3.6 Billion*, WALL ST. J., Feb. 11, 1992, at A3, A8.

160. *Id.* at A3, A8; *UAL Slashes Jet Deliveries by 122, Spending by $6.7 Billion*, AVIATION DAILY, Feb. 11, 1992, at 247.

161. Pulley & Harris, Jr., *supra* note 159, at A3, A8.

162. Brenner, *supra* note 114, at 204 (quoting Michael Levine).

163. *Id.* at 206.

164. *Id.*

ulation levels of 54-56%.[165]

Aviation litigation has severely strained the economic resources of general aircraft manufacturers. The general aviation industry sold only 1,021 aircraft in 1991, the lowest number in modern history.[166]

B. AIRLINES

Part 121 of the Code of Federal Regulations[167] defines carriers earning more than $1 billion as "majors." Those earning more than $100 million but less than $1 billion are "nationals." And carriers earning less than $100 million are "regionals."

U.S. MAJOR AND NATIONAL AIRLINES (1992)

As of February 1992, the majors were:
- American
- America West*
- Continental*
- Delta
- Northwest
- Southwest
- Trans World*
- United
- USAir

The nationals were:
- Alaska
- Aloha
- American Trans Air
- Hawaiian
- Horizon
- Markair
- Midwest Express
- Tower
- Trump Shuttle
- Westair

* in bankruptcy

Commuter airlines, operating fewer than 60 seats, are governed by Part 135 of the Code of Federal Regulations.[168] In 1978, 210 commuter airlines offered passenger service; by 1991, there were but 176, and the largest 50 carried 92% of all commuter passengers.[169]

Of the 148 new carriers reporting financial data to the U.S. Depart-

165. Bridget O'Brian, *Airlines Seek to Earn More From an Irritated Clientele*, WALL ST. J., Mar. 16, 1992, at B1.
166. *General Aviation Sales Reach Historic Low*, AVIATION DAILY, Jan. 17, 1992, at 100.
167. 14 C.F.R. § 121 (1992).
168. 14 C.F.R. § 135 (1992).
169. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 31.

ment of Transportation [DOT] since deregulation, as of 1991, only 44 remained.[170]

1. *America West*

Of the 176 airlines spawned by deregulation, America West is the only one which managed both to make it into the big leagues of the majors and to survive into the 1990s. America West has significant market share at its two hubs — Phoenix and Las Vegas — but in neither does it control more than 50% of the market. After a period of rapid and optimistic expansion, it struggles in Chapter 11 bankruptcy. As of this writing, its prospects for survival are less than overwhelming.

2. *American Airlines*

American Airlines is the largest airline in the Western world, and one of the strongest. Under its tenacious and shrewd CEO, Robert Crandall, American has been an industry innovator. In 1984, American was the first airline to institute a two-tier wage structure, allowing it to expand at lower cost; today, more than half its employees are on the "B" scale.[171] In 1981, it inaugurated frequent flyer programs.[172] It pioneered computer reservations systems [CRS], and today owns one of the two largest, Sabre.

In addition to expanding its Dallas/Ft. Worth operations into a major hub (it moved its corporate headquarters there from New York in 1979), it established hubs at San Jose, Nashville, Raleigh/Durham and San Juan. American is the second largest airline at Chicago O'Hare, the world's busiest airport, with 34.5% of the market, behind United's 49.7%. It controls 61.5% of Dallas/Ft. Worth (compared to 34.5% flown by Delta), 82,4% of Raleigh-Durham, 65.1% of Nashville, 63.4% of San Juan, and 58.5% of San Jose.

American invested more than $1 billion in overseas expansion since 1989, beginning with the purchase of Eastern's Latin American routes (which Eastern had earlier bought from bankrupt Braniff). Nonetheless, American Airlines still has a relatively weak presence in the Pacific Rim.[173] American also purchased several of TWA's routes to London Heathrow airport, and a Seattle-Tokyo route from Continental. American had planned to invest $20 billion in capital spending by 1995, mostly for new, fuel-efficient aircraft, and expanded domestic facilities.[174] But as

170. *Id.*
171. Brett Pulley & Bridget O'Brian, *Flight Plans: How the Airlines Stack Up*, WALL ST. J., June 17, 1991, at B1.
172. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 54.
173. *Snapshot of the World's Major International Airlines*, WALL ST. J., Jan. 14, 1992, at A8.
174. Pulley & O'Brian, *supra* note 171, at B1.

profits plummeted, American rolled back capital spending plans by $8 billion through the mid-1990s.[175]

American Airlines has the largest fleet in the U.S. industry, with 602 aircraft, of which more than 73% is Stage Three, and an average age of 9.6 years, the second youngest of any major U.S. airline. American anticipates it will have a fleet of 682 planes by 1995.[176] American is well positioned eventually to dominate the U.S. domestic passenger market.

3. *CONTINENTAL AIRLINES*

Continental is a blend of corporate cultures and airlines. It has been described as "the product of myriad mergers, [with] a raucous recent history that sometimes bordered on the schizophrenic under former chairman Frank Lorenzo. It's a crazy quilt of airlines forged from hostile takeovers, frequent bankruptcies, employee standoffs, midnight firings, and one shocking suicide."[177]

In the early 1980s, Frank Lorenzo's Texas International acquired larger Continental in a leveraged buy-out; the two were consolidated. In December 1990, Continental Airlines entered Chapter 11 bankruptcy for the second time (some call it Chapter 22 bankruptcy). It had first entered bankruptcy in 1983 (at which time it tore up its union contracts), and emerged from it in 1986, in time for Lorenzo to go on a buying binge, picking up People Express (including Frontier Airlines, Britt and PBA), Eastern Airlines, and Rocky Mountain Airways.

Much of Continental's debt was put on in its acquisition of People Express, Frontier and Eastern, which raised its long-term debt obligations to more than 78% of its assets, almost twice the percentage of the four largest airlines.[178] In addition to Continental's debt, between $285 million and $403 million may come its way out of the Eastern Airlines' bankruptcy as a result of the transfer of assets out of Eastern into the Texas Air empire by Frank Lorenzo at less than fair market value, as well as $752 million in Eastern's unfunded pension liability.[179]

In 1990, Continental Airline Holdings lost $2.34 billion on revenues of $6.23 billion; in 1991, it lost $341 million on revenue of $5.4 billion.[180] Lorenzo was ousted, although the company continues to suffer from an

175. *Snapshot of the World's Major International Airlines*, *supra* note 173, at A8.
176. AMR, THIRD QUARTER REPORT 4 (1991).
177. Lollar, *It's Not Easy Being Fourth . . . Or Fifth*, FREQUENT FLYER, Nov. 1991, at 8.
178. *Continental*, AVIATION DAILY, Dec. 19, 1990, at 525.
179. *See* Mahoney, *Airline Merger Brewing*, DENV. POST, Dec. 13, 1991, at 1A, 14A; *Eastern Assets*, AVIATION DAILY, Jan. 22, 1991, at 134; *Continental Withholds $17 Million Pension Payment*, AVIATION DAILY, Oct. 10, 1991, at 67.
180. Mahoney, *Continental Ekes Out Fourth-Quarter Profit*, DENV. POST, Feb. 8, 1992, at 1C, 2C.

annual turnover of Presidents, a dominant management strategy for Continental throughout the 1980s.

Continental is dominant in Houston (80.2%) and Newark (53.2%). It is the largest airline in Cleveland (36.7%), and the second largest in Denver (35.5%, behind United with 47.7%).

In 1992, Continental proposed a plan of reorganization to trade debt for equity, wiping out the stockholders, thereby reducing the company's long-term liability from $5.1 billion to $1.7 billion, and rolling back its interest expenses by $270 million a year.[181] SAS, which owned nearly 19% of Continental, has written down its investment to zero.

4. DELTA AIRLINES

Delta is generally regarded as providing among the highest level of service in the industry and having the most loyal and best paid employees. It is also known as among the most conservative of airlines, although it seems to be shedding that image as it has recently gone on a buying spree. Before it acquired Salt Lake City hubbed Western Airlines for $860 million in 1986, Delta had not acquired an airline since it purchased Northeast in 1972.[182]

Delta is well positioned domestically with its hubs of Atlanta (89.2%), Cincinnati (88.1%) and Salt Lake City (82.6%), and well positioned internationally with its purchase of Pan Am's major transatlantic and European services, hubbed in Frankfurt, and its Boston-Washington-New York shuttle.[183] Delta is best positioned to capitalize on the economic growth of Eastern Europe, although with European Community liberalization, EC carriers will likely enter the type of destructive competition which characterized the domestic U.S. market in the 1980s. Delta is also building a Taipei hub and expanding in Asia.[184] With Eastern gone, Delta will dominate the southeast, and will fight smaller USAir for dominance of the northeast.

In order to build global alliances and avoid a takeover attempt, in the late 1980s Delta traded blocks of 5% of its stock with both Singapore Airlines and Swissair, known in the industry as two of the highest service airlines in the world. At 8.6 years on average, Delta's is the youngest fleet of any major U.S. airline.

One potential problem for Delta lies in litigation flowing from the demise of Pan Am. Pan Am folded on December 4, 1991, a day after Delta

181. Mahoney, *No Layoffs in Continental Plan, Stockholders Would Lose Equity*, DENV. POST, Feb. 7, 1992, at 1C; O'Brian, *Continental Air Reorganization Plan Erases Stock, Makes Creditors Owners*, WALL ST. J., Feb. 7, 1992, at A5.

182. *Delta to Buy Western Air for $860 Million*, WALL ST. J., Sept. 10, 1986, at 3.

183. *See* Lollar, *Delta's Wild Blue Yonder*, FREQUENT FLYER, Oct. 1991, at 8.

184. *Snapshot of the World's Major International Airlines*, *supra* note 173, at A8.

announced it would cut the flow of money it had allegedly promised. One suit, seeking $1.1 billion was filed by Pan Am employees thrown out of work.[185]

5. *NORTHWEST AIRLINES*

Northwest entered deregulation with perhaps the strongest balance sheet in the industry. Unfortunately, this would make it a prime candidate for a leveraged buy-out.

In 1986, Northwest acquired Republic Airlines for $884 million, itself a product of the mergers of North Central, Southern and Hughes Airwest. That gave Northwest significant domestic feed for its international routes (it is among the strongest transPacific carriers) and control of the hubs of Minneapolis/St. Paul (81.3%), Detroit (73.1%) and Memphis (82.1%). Of the three, Detroit is potentially the most important, with its huge O&D base of 4.7 million people.

In a transaction which increased Northwest's debt-to-equity ratio from 0.42/1 to 5.85/1, in August 1989, Wings Holdings, Inc., acquired control of Northwest with 81.5% debt and 18.5% equity. Wings' debt was $3.1 billion, almost two-thirds of which was put up by Japanese banks. Equity was $705 million, of which Alfred Checchi, Gary Wilson and Frederic Malek put up only $40 million (for which they received about half the voting and nonvoting common stock), KLM (a Netherlands airline) put up $400 million (or 57% of the equity, for which KLM received 70% of Wings' nonvoting preferred stock, 31% of its nonvoting common stock, and 4.9% of its voting common stock, as well as a warrant allowing it to convert up to $50 million of its preferred stock into common stock, some of which could be voting), and Elders IXL (an Australian company) put up $80 million (or 11% of the equity, for which it received 10% of Wings' nonvoting preferred stock, 16% of its nonvoting common stock, and 15.4% of its voting stock).[186]

Northwest spent more than $3 billion on the LBO. That is more than the purchase price of Pan Am's transpacific division (bought by United for $715 million), Western Airlines (bought by Delta for $860 million), Ozark Airlines (bought by TWA for $250 million), Eastern Airlines and People Express (bought by Texas Air for $676 million and $112 million, respectively), and Air Cal (bought by American for $225 million), *combined*. For these purchases, these airlines acquired significant operating assets and market share. For its purchase, Northwest acquired the talents of Alfred Checchi.

185. *Delta Sued Again Over Pan Am Deal*, DENV. POST, Mar. 13, 1992, at 2C.

186. *In re. the Acquisition of Northwest Airlines by Wings Holdings, Inc.*, DOT Order No. 91-1-41, at 2 (1991).

Price Waterhouse recently concluded that Northwest was at a "critical juncture" and was facing "significant hurdles."[187] Most stem from the $3.65 billion leveraged buy-out of the company by Alfred Checchi and partners (Wings Holdings, Inc.) in 1989, which saddled an almost debt-free company with enormous debt.[188] Both mergers and route sales have been explored to shore up its financial condition and strategic position.[189] Northwest has made a $7 billion commitment for new aircraft through 1995, which it desperately needs, for its fleet is 15.6 years old on average, and 65% is Stage Two.

Northwest earned record profits of $135 million in 1989; it earned $67 million in 1989. But it lost $302 million in 1990, and $317 million in 1991.[190] According to one source, the heavy debt burden put on by the Checchi LBO, coupled with these tremendous losses, have caused Northwest's debt-to-equity ratio to soar to an unbelievable 30 to 1 ($4.2 billion in debt versus $141 million in equity).[191] Others estimate that Northwest carries $1.4 billion in debt.[192]

Annual interest expenses at Northwest are $7,835 per employee, compared to $2,534, $1,612 and $928 at United, American and Delta, respectively.[193] Under Checchi, expenses have grown, and international routes, traditionally the solid profit base, have turned unprofitable.[194] However, Northwest's deteriorating cash position was much bolstered by an infusion of several hundred million dollars by the state of Minnesota to lure the construction of maintenance bases in the state.

The difficulty Northwest faces is debt, debt and debt, followed by United's growing competitive threat in the Pacific, and United-American-Delta's expansion in the Atlantic.

6. *SOUTHWEST AIRLINES*

Under maverick Herb Kelleher, Southwest has been profitable by following a course alien to the other airlines. Instead of establishing a hub-and-spoke system, Southwest flies a linear route system across 14 states focused on frequent, short flights with no-frills service exclusively in Boeing 737s between smaller cities not generally served by the megacarriers.[195] "We have sort of lived off the scraps of the table of the mega-

187. *Snapshot of the World's Major International Airlines*, *supra* note 173, at A8.
188. Nomani, *NWA Weighs Sale of Routes, Merger Option*, WALL ST. J., Feb. 11, 1991, at A3.
189. *Id.* at A3.
190. Laing, *Losing Altitude: Heavy Debt Load, a Legacy of Its LBO, Weighs Down NWA*, BARRONS, Feb. 17, 1992, at 8.
191. *Id.*
192. Lollar, *supra* note 177, at 8, 12.
193. Laing, *supra* note 190, at 8.
194. *Id.*
195. Pulley & O'Brian, *supra* note 171, at B1.

carriers," said Kelleher. "But I know lots of fat little puppies that have lived off table scraps."[196]

Southwest began in 1971 as a Texas intrastate airline flying 737s between Houston, Dallas and San Antonio. The Wright Amendment restricts service at close-in Houston Hobby and Dallas Love airports to airlines flying from states contiguous to Texas. This has enabled Southwest to maintain a virtual monopoly at both airports, virtually free from competition at either. Southwest controls 70% of Houston Hobby and 100% of Dallas Love airports. Southwest was the only major airline to earn a profit in 1991.[197]

7. *Trans World Airlines*

TWA entered deregulation as the nation's fourth largest airline, although it had earlier suffered from the eccentricities of its owner Howard Hughes. In the late 1970s, TWA diversified into several nonseasonal industries to balance its profit flow — Hilton International, Century 21, Canteen Corporation and Spartan Foods. This diversion was to cost it market share. Ultimately, it spun off these properties.

In the mid-1980s, TWA became the target of Frank Lorenzo, then Carl Icahn. Labor was willing to surrender significant concessions to Icahn to avoid the dreaded union-buster Lorenzo. Shortly thereafter, TWA executed a pre-existing plan to acquire Ozark, giving it a strangle hold on St. Louis Lambert International Airport, where it controls 76.4% of the market.

After its acquisition, Icahn took the company private and began cannibalizing many of its properties to finance raids on other companies. In 1992, Icahn announced a "pre-packaged" Chapter 11 filing, beyond which some analysts predict only another 18 to 36 months of life for this anemic airline.[198] One analyst gave TWA only a 50-50 chance of reorganizing successfully.[199]

In 1990, TWA carried more than $2.5 billion in debt.[200] By 1991, it was reported that TWA's debt had been reduced to $1.4 billion.[201] Interest payments recently exceeded 8% at both TWA and Eastern — the

196. *American Trying to Cope With Low-Cost Success Southwest*, AVIATION DAILY, Feb. 18, 1992, at 287.

197. *Id.*

198. *Snapshot of the World's Major International Airlines*, *supra* note 173, at A8.

199. *TWA Surprises Industry with Early Chapter 11 Bankruptcy Filing*, AVIATION DAILY, Feb. 3, 1992, at 199.

200. *Carl Icahn Considering Sale of TWA in Two-Step Process*, AVIATION DAILY, May 7, 1990, at 247. Other sources report that TWA owed $3.2 billion in long-term debt, lease obligations and unfunded pension liability. Randall Smith, *Pan Am Stock Soars as Icahn Makes New Bid*, WALL ST. J., Dec. 18, 1990, at A4.

201. Mahoney, *supra* note 179, at 1A, 14A.

highest in the industry.[202] TWA flies the oldest fleet of aircraft of any major airline in the U.S. system (an average of 16.6 years) and consistently ranks among the worst airlines in terms of consumer complaints and on-time performance.

8. UNITED AIRLINES

United was the only major airline to support deregulation. As the nation's largest carrier, with 17% of the passenger market, it thought itself better able to grow without the benevolent presence of the Civil Aeronautics Board. But under Richard Ferris, it blundered almost immediately, by pulling out of short haul markets (selling off scores of 737s, for example), and concentrating on long-haul traffic. United soon learned that the smaller airlines were not content to feed it, inaugurating their own long-haul routes. United soon reversed course, began buying smaller aircraft, and establishing hub-and-spoke systems.

United also got off course by buying related travel companies — it added Hertz Rent-a-Car and Hilton International Hotels to its existing Westin Hotel Chain under a holding company awkwardly named Allegis. Whatever the potential value of creating a one-stop travel conglomerate, United failed to integrate the system; the corporate raiders began to circle, and United reversed course again, spinning off the non-airline properties, and dropping the Allegis label.

In the meantime, United's market share had slipped significantly. It was not able to achieve its pre-deregulation market presence until 1991, by which time American had surpassed it as the nation's largest airline.

But United did a couple of things quite right. It established hub systems in San Francisco, Denver, Chicago and Washington (Dulles), covering both coasts and the interior with hubs spread about quarter way across the continent. It is the largest airline at Chicago O'Hare (49.7%), Denver (47.7%), San Francisco (39.4%), and Washington Dulles (39.4%). In 1991, United announced its purchase of Air Wisconsin, which will increase its number of slots at Chicago O'Hare, the world's largest airport, by 16%, giving it clear dominance over American. American has filed an antitrust suit to block the transfer. Midway has disappeared from the Chicago market, which should allow both carriers to raise prices.

United also seized many the primary international routes of a disintegrating Pan Am. United purchased Pan Am's transpacific operations for $715 million, its London Heathrow and fifth-freedom beyond rights for

202. *U.S. Major and National Carriers Interest, Experience, First Quarter 1990*, AVIATION DAILY, July 30, 1990, at 192; *U.S. Major and National Carriers Interest, Experience, Third Quarter 1990,* Aviation Daily (Feb. 19, 1991), at 326; AVIATION DAILY, Nov. 7, 1991, at 248.

$400 million, and its Latin American operations for $135 million.[203] Most analysts predict international traffic will grow at a faster pace than the domestic market throughout the 1990s. United's fleet is growing at the rate of about one new aircraft a week, although it has recently canceled a large block of smaller aircraft.[204] It left standing orders for Boeing 747 and 777 planes, which will be fed into United's growing international system. United's Apollo is one of the two strongest computer reservations systems.

United lost $94.5 million in 1990, and a record $331.9 million in 1991.[205] CEO Stephen Wolf was paid a record $18.3 million in compensation in 1990, despite his company's poor performance.[206] As a consequence of United's unprecedented losses, it cut capital spending by $6.7 billion, or 35%, between 1993 and 1995.[207] Mr. Wolf's compensation was also paired in 1991, to a paltry $575,000.[208]

9. US Air

In 1987, USAir purchased Pacific Southwest Airlines for $400 million, and Piedmont for $1.56 billion. In 1989, USAir merged operations with Piedmont, although it has had considerable difficulty digesting that acquisition, with both service and profitability turning south.[209] USAir had two miserable years financially in 1990-91, losing several hundred million dollars each year. US Air suffered a record net loss of $454 million in 1990, and $305 million in 1991.[210] In order to cut costs, US Air pulled out of the competitive California markets it entered with the PSA purchase, laid off 7,000 employees, and asked the rest for 20% wage concessions.[211]

US Air has relatively weak presence internationally, having bought TWA's authority to London from Philadelphia and Boston for $50 million.[212] It may also need to trim a few of its hubs east of the Missis-

203. *Snapshot of the World's Major International Airlines*, *supra* note 173, at A8.

204. Pulley & O'Brian, *supra* note 171, at B1.

205. *United Lays Off 534, Warns of More Cuts*, DENV. POST, Feb. 22, 1992, at 1C.

206. *SEC Wants to See Clear Explanation of Executive Compensation*, AVIATION DAILY, Feb. 18, 1992, at 287.

207. *United Lays Off 534, Warns of More Cuts*, *supra* note 205, at 1C.

208. Brett Pulley, *For UAL's Wolf, Compensation Fell Sharply in 1991*, WALL ST. J., Mar. 30, 1992, at B6.

209. *USAir Scaling Back Expansion Plans for 12-24 Months*, AVIATION DAILY, Aug. 15, 1990, at 286.

210. Brett Pulley, *USAir May Have Trouble Getting Unions to Agree to Other Workers' Concessions*, WALL ST. J., Oct. 7, 1991, at A4; Brett Pulley, *USAir's Vice Chairman Malin Ousted, Apparently Blamed for Carrier's Woes*, WALL ST. J., Feb. 5, 1992, at A12.

211. Pulley, *USAir May Have Trouble Getting Unions to Agree to Other Workers' Concessions*, *supra* note 210, at A4.

212. *Snapshot of the World's Major International Airlines*, *supra* note 173, at A8.

sippi.[213] It now dominates Pittsburgh (89.6%), Charlotte (95.2%) and Baltimore (68.1%), and with the demise of Eastern and Midway has significant market share in Philadelphia ((52.9%). It has dismantled the once-profitable Dayton hub it inherited from Piedmont, where in 1990 it had 77.8% of the market. USAir solidified its east coast operations with the purchase of Continental's new LaGuardia terminal and landing slots for $61 million, and the signing of an agreement to operate (and an option to buy) the Trump shuttle, which flies between New York's LaGuardia, Boston Logan, and Washington National Airports.[214] The shuttle is saddled with some $380 million in debt, an enormous burden for such a small airline.[215] Unfortunately, USAir must compete with mighty Delta in the shuttle market. USAir holds 168 jet slots and 28 commuter slots at LaGuardia, and 150 jet slots and 148 commuter slots at Washington National Airport.[216] USAir has a relatively young fleet for a U.S. carrier, at 9.3 years on average.

C. AIRPORTS

In 1991, some 23 new airports were under construction somewhere in the world, with Denver International Airport scheduled to have the most runways — six — and to be the largest (at 53 square miles, covering a land mass twice the size of Manhattan Island).[217] No major airport had been built in the United States since Dallas/Ft. Worth International Airport opened in 1974 and Atlanta Hartsfield International Airport was reconfigured on its existing property in 1980. The most expensive U.S. airport on the drawing board is Chicago's Calumet, projected to open in the year 2005 at a cost of $10.8 billion.[218]

Subsequent to deregulation, airlines began consolidating their operations around "fortress" hubs. Hubs account for 70% of the flights offered by domestic airlines.[219] In selecting a city to serve as a hub, an airline looks for one with some of the following characteristics: (1) an interior point geographically situated for flow, preferably east to west, since that is the routing of most business travelers (the most lucrative share of the market); (2) a large population base to enhance origin and destination

213. Pulley, *USAir May Have Trouble Getting Unions to Agree to Other Workers' Concessions*, *supra* note 210, at A4.

214. Takemoto, *Go East*, FREQUENT FLYER, Mar. 1992, at 8.

215. *See USAir Plan to Run Trump Shuttle Gets Approval from U.S.*, WALL ST. J., Mar. 30, 1992, at A4.

216. *Continental Selling LaGuardia Assets to USAir*, AVIATION DAILY, Nov. 19, 1991, at 298.

217. *Intelligence*, AVIATION DAILY, May 21, 1991, at 345.

218. *Illinois and Chicago Cut Deal to Build Lake Calumet Airport*, AVIATION DAILY, Feb. 21, 1992, at 311.

219. *American-Sponsored Study Blasts Criticism of Hubs*, AVIATION DAILY, July 31, 1990, at 197.

[O&D] traffic, preferably white collar (again, because business travelers pay more for air transportation); and (3) preferably, no nearby hubs or competing airports dominated by another airline.

According to the 1990 census, the largest metropolitan area population of U.S. cities was as follows:

LARGEST U.S. METROPOLITAN AREAS[220] (1990)

Metropolitan Area	Population (millions)
1. New York	18.1
2. Los Angeles	14.5
3. Chicago	8.1
4. San Francisco	6.3
5. Philadelphia	5.9
6. Detroit	4.7
7. Boston	4.2
8. Washington	3.9
9. Dallas	3.9
10. Houston	3.7
11. Miami	3.2
12. Atlanta	2.8
13. Cleveland	2.8
14. Seattle	2.6
15. San Diego	2.5
16. Minneapolis	2.5
17. St. Louis	2.4
18. Baltimore	2.4
19. Pittsburgh	2.2
20. Phoenix	2.1
21. Tampa	2.0
22. Denver	1.8
23. Cincinnati	1.7
24. Milwaukee	1.6
25. Kansas City	1.6
34. Charlotte	1.2
38. Salt Lake City	1.1
40. Nashville	1.0
41. Memphis	1.0
44. Dayton	1.0
54. Raleigh-Durham	0.7

The following chart lists the largest airports in the United States:

220. U.S. STATISTICS 797 (1991).

TEN LARGEST U.S. AIRPORTS (1990)[221]

AIRPORT	TOTAL PASSENGERS	SCHEDULED OPERATIONS
Chicago O'Hare	58,775,486	775,687
Dallas/Ft. Worth	48,915,464	713,958
Atlanta	47,629,438	569,438
Los Angeles	45,530,880	612,428
San Francisco	30,355,338	397,524
New York Kennedy	29,428,400	282,126
Denver	27,383,602	305,660
Miami	25,838,398	281,180
New York LaGuardia	22,789,260	333,512
Newark	22,207,200	356,957

Chicago dominates U.S. air transportation because of geographic proximity and huge metropolitan population (8 million people, compared to Detroit's 4.7 million, St. Louis' 2.4 million, or Minneapolis' 2.5 million). Dallas dominates the south central region, and Atlanta the southeast, for the same reasons — population base and geographic proximity. Atlanta, for example, has but one airport serving a metropolitan population of 2.8 million compared to the surrounding southern hubs of Charlotte, Nashville, Raleigh, and Memphis of less than half the people. As we shall see, the three largest U.S. airports are dominated by the three largest U.S. airlines — American, Delta and United.

Compare these data with the number of passengers and operations at the largest foreign airports:

TEN LARGEST FOREIGN AIRPORTS (1990)[222]

AIRPORT	TOTAL PASSENGERS	COMMERCIAL OPERATIONS
London Heathrow	42,647,235	388,289
Frankfurt	29,631,427	324,387
Paris Orly	24,205,570	191,421
Paris Charles de Gaulle	22,094,122	233,000
London Gatwick	21,047,089	203,211
Stockholm	14,822,450	257,606
Copenhagen	12,080,978	190,767
Dusseldorf	11,576,506	139,147
Munich	11,218,119	163,282
Vancouver	9,912,429	279,788

221. *U.S. Large Airport Traffic, 12 Months 1990*, AVIATION DAILY, Aug. 15, 1990, at 307. Enplaned passenger figures have been doubled to approximate total passengers, the standard used in the following chart for foreign airports. However, the reader should beware that a doubling of enplaned passengers may not be precisely the total number of passengers flown through the airport.

222. *Worldwide Airport Traffic, 12 Months 1990*, AVIATION DAILY, Aug. 15, 1991, at 308.

AIRLINE MARKET SHARES AT U.S. CONCENTRATED AIRPORTS[223]
(20 airports where a single airline has more than 45% share)

AIRPORT	YEAR 1977	1984	1987	1990	1991
ATLANTA					
Delta		52.6		57.1	89.2%
Eastern		40.2		35.7	0
BALTIMORE					
USAir	24.5	13.7	60.0	68.1	
CHARLOTTE					
USAir		nil		93.5	95.2%
CHICAGO O'HARE					
United		46.0		48.9	49.7%
American		25.5		34.1	34.5%
CINCINNATI					
Delta	35.0	55.9	67.6	84.5	88.1%
DALLAS/FT. WORTH					
American		62.0		62.8	61.5%
Delta		22.5		30.1	31.5%
DENVER					
United		39.9		48.8	47.7%
Continental		23.4		34.0	35.5%
DETROIT					
Northwest		11.9	64.9	69.4	73.1%
HOUSTON					
Continental	20.4	47.1	71.5	77.3	80.2%
MEMPHIS					
Northwest		nil	86.7	82.1	
MINNEAPOLIS/ST. PAUL					
Northwest	45.9	47.8	81.6	80.0	81.3%
NASHVILLE					
American	28.2	22.0	60.2	65.1	
NEWARK					
Continental		nil		48.2	53.2%
PHILADELPHIA					
USAir		23.8		46.1	52.9%
PHOENIX					
America West		18.4		45.8	47.1%
Southwest		14.0		21.3	23.2%
PITTSBURGH					
USAir	43.7	77.2	82.8	87.5	89.6%
RALEIGH/DURHAM					
American		nil		78.6	82.4%
ST. LOUIS					
TWA	39.1	57.9	82.3	78.7	76.4%
SALT LAKE CITY					
Delta		nil	74.5	83.7	82.6%
WASHINGTON DULLES					
United		23.9		65.1	67.8%

223. 1977 and 1987 data are taken from *The Big Trouble With Air Travel (why fares are headed up and service down)*, CONSUMER REP., June 1988, at 362-67; 1984 data are taken from *U.S. Air Carrier Domestic Market Share at Leading U.S. Airports, The Year 1984*, AVIATION DAILY, Apr. 17, 1985; 1990 data are taken from *U.S. Air Carrier Domestic Market Share at Leading U.S. Airports, The Year 1990*, AVIATION DAILY, Aug. 16, 1991, at 318, and unofficial DOT reports.

Again, the three largest U.S. airlines — American, Delta and United, have the largest U.S. flag presence at the two largest foreign airports.

The dominant megatrend on the U.S. deregulation landscape is the growth of hubs and spokes. Some call them "fortress hubs", where a single airline controls the lion's share of gates, takeoffs and landings, and passengers. Note that not a single major airport in the United States was dominated by one airline before deregulation; not one had more than 45% of any major airport. The preceding chart describes the growth in concentration at 20 U.S. airports which have become hubs.

Hubbing requires smaller aircraft flying shorter stage lengths and consuming more labor and fuel than a linear route system. Since smaller aircraft, like the hub favorite DC-9s, 727s, and 737s, have higher unit costs per passenger than the larger wide-bodied planes which were the growing trend pre-deregulation, why do airlines prefer them?

The U.S. General Accounting Office [GAO] has found that air fares during 1988-89 at concentrated airports were 27% higher than at unconcentrated facilities.[224] Similarly, the DOT found that fares at concentrated hub airports were 18.7% higher than in more competitive markets of similar distance and size.[225]

The GAO has also found a correlation between higher fares on the one hand, and code-sharing agreements (2% higher), highly congested airports (2% higher), majority-in-interest clauses (3% higher), and slot limitations (4% higher), on the other.[226] Of the 3,129 gates at the nation's 66 largest airports, 88% are leased to airlines, and 85% of the leases are for exclusive use; 90% of leased gates are held by the eight largest airlines.[227] According to the GAO, a 65% increase in a carrier's market share on a route translates into 6% higher fares.[228]

As of 1988, the eight largest airlines owned 96% of the takeoff and landing slots at the four slot-constrained airports (i.e., Chicago O'Hare, Washington National, and New York's LaGuardia and Kennedy). In 1985, before the DOT freed airlines to buy and sell slots in the market, these

224. GAO, AIRLINE COMPETITION; HIGHER FARES AND REDUCED COMPETITION AT CONCENTRATED AIRPORTS (1990). GAO, AIR FARES AND SERVICE AT CONCENTRATED AIRPORTS (1989). *Higher Fares at Concentrated Airports Continue, GAO Says*, AVIATION DAILY, July 13, 1990, at 81. Other studies have revealed that fares are more than 18% higher per mile at airports where a single airline controls more than 75% of departures, than the national average. *Ground Control, We Seem to Have a Problem*, ECONOMIST, Jan. 26, 1991, at 57, 60.

225. *The Financial Condition of the Airline Industry and the Adequacy of Competition: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 102d Cong., 2d Sess. VII (1991) [hereinafter *Financial Condition*].

226. *GAO Releases Findings on Concentration and Limited Entry*, AVIATION DAILY, May 15, 1991, at 309.

227. *Intelligence*, AVIATION DAILY, Aug. 20, 1990, at 323.

228. *GAO Releases Findings on Concentration and Limited Entry*, *supra* note 226, at 309.

airlines controlled only 70% of the slots.[229] An airline which doubles the number of its gates enjoys a 3.5% increase in fares.[230]

American Airlines owns 528 jet slots at Chicago O'Hare airport, which it values at $1.056 billion.[231] In 1991, United owned 747 slots at O'Hare, worth nearly $1.5 billion, and had reached an agreement to purchase Air Wisconsin, which owned 118 commuter slots at O'Hare.[232] American recently offered $2 million per slot at O'Hare.[233]

D. BANKRUPTCIES

Nearly 200 airlines have gone bankrupt since promulgation of the Airline Deregulation Act of 1978.[234] Beginning in 1989, several major airlines entered Chapter 11 (reorganization) bankruptcy, including Eastern, Pan Am, Midway, Continental, America West and TWA.

To date, not one major airline which entered Chapter 11 has emerged successfully (Continental emerged in 1986, then reentered in 1990). Eastern Air Lines, the nation's oldest (which began operations as Pitcairn Aviation on May 1, 1927) ceased operations on January 18, 1991. Pan Am, which began flying on October 28, 1987, ceased operations on December 5, 1991. Midway Airlines, a creature born of deregulation, ceased operations on November 14, 1991.[235]

As of this writing, three major airlines — Continental, TWA and America West — are in bankruptcy. These three airlines account for between 15% and 20% of the market.

Several executives at the healthier airlines (e.g., American and Delta) have urged the Department of Transportation to revoke the certificates of airlines operating in Chapter 11 bankruptcy on grounds that they fail to satisfy the statutory standard of "fitness" required by section 401 of the Federal Aviation Act.[236] To date, DOT has shown little enthusiasm for the idea.

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229. GAO, AIRLINE COMPETITION: INDUSTRY OPERATING AND MARKETING PRACTICES LIMIT MARKET ENTRY 4 (1990).

230. *Id.* at 6.

231. *Intelligence*, REGIONAL AVIATION, Dec. 2, 1991.

232. *Id.*

233. *Id.*

234. Uchitelle, *Off Course*, N.Y. TIMES MAG., Sept. 1, 1991, at 12, 14.

235. Nomani, *Midway Airlines Grounds Fleet as Accord Fails*, WALL ST. J., Nov. 14, 1991, at A4; *Pan Am Shutdown Sets Up Bid War for Latin American Route Authority*, AVIATION DAILY, Dec. 5, 1991, at 399-400.

236. Nomani & O'Brian, *Healthy Airlines Lash Out at Their Struggling Rivals*, WALL ST. J., Mar. 17, 1992, at B4.

E. CONCENTRATION

Prior to deregulation in 1978, 99% of the traffic was carried by the following 19 domestic trunkline and local service carriers:

TRUNKLINE AND LOCAL SERVICE AIRLINES (1978)[237]

Allegheny
American
Braniff
Continental
Delta
Eastern
Frontier
Hughes Airwest
National
North Central
Northwest
Ozark
Pan American
Piedmont
Southern
Texas International
Trans World
United
Western

In 1978, the eight largest airlines had a market share of 80%. However, as the following chart reveals, the market share of the eight largest airlines exceeded 90% in the 1990s, a level unprecedented in the history of U.S. aviation:

U.S. AIRLINE MARKET SHARES[238]
(in percentage of revenue passenger miles)

AIRLINE	1978	1983	1984	1985	1989	1990	1991
United	17.4	16.0	15.5	12.5	16.4	16.7	18.5
American	12.8	12.7	12.4	13.3	17.3	17.0	18.6
TWA	11.9	10.1	9.6	9.6	8.3	7.5	6.3
Eastern	11.1	10.5	9.9	10.0	2.7	3.7	0
Delta	10.3	9.6	9.2	9.0	14.0	13.0	15.2
Pan Am	9.3	10.7	9.5	8.1	6.8	6.8	4.1
Continental	3.8	3.5	3.7	4.9	9.1	8.6	9.4
Northwest	3.1	6.6	6.7	6.7	10.8	11.3	12.0
USAir	1.8	2.7	2.8	2.9	8.0	7.8	7.7

237. *Financial Condition*, *supra* note 225, at 171 (statement of Edward R. Beauvais).

238. WASH. POST NAT'L WKLY. EDITION, Dec. 10-16, 1990; AVIATION DAILY, Mar. 13, 1985; AVIATION DAILY, Feb. 5, 1986; *U.S. Industry Traffic Market Share, 12 Months 1990, 12 Months*

By January 1992, the three largest U.S. airlines controlled 57% of the market; the top four had 70%.[239] A doubling of an airline's market share on a particular route translates into a price increase of almost nine percent. In 1990, 76% of all passengers in domestic markets flew on routes served by three or fewer airlines; 45% flew on routes served by only one or two carriers.[240]

The following acquisitions of airlines and major airline properties, exceeding $13 billion, were consummated since 1986:

ACQUIRED AIRLINE PROPERTIES	ACQUIRING AIRLINE	PRICE (in millions)
1986		
Pan Am (transpacific)	United	$715
Republic	Northwest	$884
Ozark	TWA	$250
Eastern	Texas Air	$676
People Express	Texas Air	$112
1987		
Air Cal	American	$225
Western	Delta	$860
Pacific Southwest	USAir	$400
Piedmont	USAir	$1,590
1988		
TWA	Carl Icahn	unknown
1989		
Eastern (NY shuttle)	Trump	$365
Northwest	Checchi Group	$3,650
Eastern (Philadelphia)	Midway	$210
1990		
Midway (Philadelphia)	USAir	$68
Eastern (Latin America)	American	$471
Eastern (LaGuardia slots)	American	$10
Eastern (Canadian routes)	American	$10
Continental (Seattle-Tokyo)	American	$150
TWA (Chicago)	American	$80
TWA (D.C. slots)	United	$19
Pan Am (London)	United	$400
Pan Am (Berlin)	Lufthansa	$150

1989, AVIATION DAILY, Jan. 29, 1991, at 189; *U.S. Industry Traffic Market Share,* AVIATION DAILY, Jan. 21, 1992, at 124.

239. *See American Captures Nearly 21 Percent of Major's RPMs*, AVIATION DAILY, Feb. 19, 1992, at 301.

240. GAO, U.S. AIRLINES; WEAK FINANCIAL STRUCTURE THREATENS COMPETITION 10 (1991).

1991		
Midway (21 Chicago gates)	Northwest	$22
Eastern (Chicago & D.C. gates & slots)	United	$90
Eastern (LaGuardia gates & slots)	Continental	$54
Eastern (Canadian routes)	Delta	$243
Eastern (Atlanta and L.A. gates)	Delta	$63
Pan Am (European routes and NY shuttle)	Delta	$416
Pan Am (NY shuttle)	Delta	$113
Pan Am (Latin America)	United	$135
Air Wisconsin	United	$72
Pan Am Express	TWA	$28
TWA (Heathrow)	American	$515
TWA (Philadelphia and Baltimore — London)	USAir	$50
Continental (Air Micronesia)	investment group	$250
1992		
Continental (LaGuardia terminal and slots)	USAir	$61

F. Computer Reservations Systems

Ninety-five percent of travel agents use one of the airline-owned computer reservations systems [CRS].[241] According to the GAO, an airline which owns its own CRS stands between a 13% to 18% greater chance of selling its product through its system than does a competitor.[242]

Covia (owned by United, USAir and British Air) operates and markets the Apollo CRS, developed by United Air Lines. American Airlines owns Sabre.[243] Worldspan is owned by TWA, Northwest and Delta. It includes the Pars CRS, developed by TWA, and Datas II, developed by Delta.[244] System One was developed by Eastern, and acquired by Continental.

Several smaller systems exist. Abacus is owned jointly by several airlines, including Singapore Airlines and Cathay Pacific. Gemini is owned by Air Canada and Canadian.[245]

Sixty-six percent of all revenue booked by travel agents in the United States are booked on either Apollo or Sabre. Because of the dearth of competition in the CRS industry, United and American earn more than $300 million per year from weaker airlines beyond the cost of providing

241. GAO, Airline Competition; Higher Fares and Reduced Competition at Concentrated Airports, *supra* note 224, at 27.

242. GAO, Airline Competition: Impact of Computerized Reservations Systems 5-6 (1986).

243. *Amadeus, Sabre Sign Long-Term Marketing Agreement*, Aviation Daily, Nov. 19, 1990, at 334. In 1990, Sabre signed a marketing agreement with the European CRS Amadeus, which is a consortium owned equally by Lufthansa, Iberia, SAS and Air France in 1987. However, the agreement was not consummated.

244. *System One, Continental Optimistic About Deal with Worldspan*, Aviation Daily, Mar. 20, 1991, at 517.

245. *Financial Condition*, *supra* note 225, at 489 (statement of Helane Becker).

the service, according to the GAO.[246] The DOT has concluded that booking fees charged other airlines were approximately double American's or United's average costs in 1988.[247] These carriers enjoy rates of return on their CRSs of between 60% to 100% a year.[248] Critics have asserted that this gives American Airlines fees in excess of costs approximately $215 million a year, and an advantage of $328 million a year as a result of the "halo" effect.[249] An airline which owns a CRS stands between a 13% to 18% greater chance of selling its product through its system than does a competitor. American responds by insisting that Sabre's annual profits are only about $78 million, and it pays some $57 million in booking fees to other CRS vendors.[250] Some have also alleged that computer reservations systems facilitate implicit price fixing.[251]

G. DEBT

Anemic profitability in the 1980s coupled with leveraged buy-outs caused a number of airlines to increase their debt-to-equity ratios.

LONG-TERM DEBT AS A PERCENTAGE OF CAPITALIZATION[252]

AIRLINE	1980	1983	1986	1989
America West	—	44.7	81.5	84.5
American	63.4	51.2	45.1	33.5
Continental	62.3	308.9	97.3	96.3
Delta	10.6	45.0	33.4	18.3
Eastern	78.5	93.2	90.7	n.a.
Northwest	5.4	8.2	50.8	n.a.
Pan Am	62.0	71.9	99.0	272.9
Southwest	38.0	29.6	35.3	33.4
TWA	61.8	65.4	94.2	114.8
United	45.2	41.5	45.8	46.1
USAir	44.0	31.8	24.8	44.8
INDUSTRY AVERAGE	53.5	57.3	56.8	56.2

In addition, the heavily leveraged airline industry carries considerable debt off its balance sheets in the form of sales of residual aircraft values

246. *Intelligence*, AVIATION DAILY, Feb. 11, 1991, at 269.
247. *Financial Condition*, *supra* note 225, at XVII. DOT, STUDY OF COMPUTER AIRLINE RESERVATIONS SYSTEMS 110 (1988).
248. *Id.* at XVIII.
249. *Id.* at 65 (statement of Edward R. Beauvais).
250. *Id.* at 595 (statement of William J. Burhop).
251. *See* Nomani, *Fare Warning: How Airlines Trade Price Plans*, WALL ST. J., Oct. 9, 1990, at B1.
252. *See Financial Condition*, *supra* note 225, at 570 (statement of Kenneth Mead); *Long-Term Debt as Percentage of Total Capitalization 1980-1989*, AVIATION DAILY, Feb. 13, 1991, at 297.

(the estimated value of the aircraft at the end of the lease term), while leasing back the planes.[253] For example, adding the debt equivalent of aircraft leases to Delta's on balance sheet debt (about $3 billion to the on balance sheet debt of $1.2 billion), increases the debt-to-equity ratio to 61%.[254] About fifty percent of the aircraft in the U.S. fleet are owned and leased by equipment leasing companies.[255] Moreover, frequent flyer liability, totaling more than $100 million at some airlines, is also omitted from the balance sheets.

H. Economic Performance

Worldwide, civil aviation generates gross revenue of some $700 billion.[256] In the United States, airlines and airports produce gross revenue of $254 billion.[257] Commercial air transportation is an integral part of the tour and travel industry, arguably the world's largest single industry, creating revenue of $2.5 trillion, about 5.5% of the world's GNPs.[258]

During the first decade of deregulation, the U.S. airline industry's profit margin declined 74%, from already unsatisfactory levels, to a paltry 0.6% (compared with between 3.0% and 6.0% for all manufacturers).[259] The following chart reveals profit margins in the airline industry pre- and post-deregulation:

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253. *Financial Condition*, *supra* note 225, at 589-90 (statement of Timothy Pettee).

254. *Hearings on Leveraged Buyouts and Foreign Ownership of United States Airlines Before the Aviation Subcomm. of the House Comm. on Public Works and Transp.*, 101st Cong., 1st Sess. 3 (1989) [hereinafter *Leveraged Buyouts]* (statement of Philip Baggaley).

255. *Aircraft Lessors Concerned About Stage 2 Phaseout*, AVIATION DAILY, Oct. 10, 1991, at 69.

256. Eser, *Airlines Bleeding to Death*, IATA REV., Apr. 1991, at 3.

257. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 21.

258. Eser, *supra* note 256, at 3.

259. *US Airline Deregulation a Financial Disaster, AFN Study Shows*, COMMUTER REGIONAL AIRLINE NEWS, Apr. 8, 1991, at 8.

NET PROFIT MARGIN OF U.S. SCHEDULED PASSENGER AIRLINES[260]

Year	Return on Investment	Net Profit	Profit Margin
1955	11.8%		5.6%
1956	9.4		4.6
1957	4.9		1.9
1958	6.3		3.0
1959	7.3		3.4
1960	2.8		0
1961	1.5		(1.7)
1962	4.1		0.4
1963	4.3		0.5
1964	10.0		4.8
1965	11.2		6.8
1966	9.7		6.5
1967	6.9		5.5
1968	4.9		2.5
1969	4.3		1.8
1970	1.4		(1.6)
1971	3.3	$ (3)	0
1972	5.1	277	2.5
1973	4.7	217	1.8
1974	7.8	306	2.1
1975		(274)	(1.8)
1976		351	2.0
1977		535	2.7
1978		826	3.6
1979		347	1.3
1980		17	0.1
1981		(301)	(0.8)
1982		(916)	(2.5)
1983		(189)	(0.5)
1984		825	1.9
1985		863	1.8
1986		(235)	(0.5)
1987		593	1.0
1988		1,706	2.6
1989		190	0.3

The two year period ending June 30, 1989, was the most profitable period in airline history.[261] But profitability turned south in 1990, when the domestic airline industry suffered an unprecedented net loss of $3.9 billion in 1990 — the worst losses in its history. U.S. airlines lost another $1.8 billion in 1991.[262] The world's commercial airlines lost $2.7 billion in

260. 1955-70: Brenner, *Need for Continued Economic Regulation of Air Transport*, 41 J. AIR L. & COM. 793, 810 (1975). 1971-78: Brenner, *supra* note 114, at 202. 1979-89: M. Brenner, Analysis of Airline Concentration Issue 84 (1990) (unpublished monograph).

261. *Leveraged Buyouts*, *supra* note 254, at 14 (statement of Timothy Pettee).

262. McGinley, *Airline Industry Seen Posting Losses in Fourth Quarter*, WALL ST. J., Oct. 8,

1990 and $4 billion in 1991 on international routes alone.[263]

By the end of 1991, the U.S. airline industry had lost all the profit it had earned since the Wright Brothers flew at Kitty Hawk, plus nearly $2 billion more.[264] It was predicted that the industry would earn only $300 million in 1992, representing a profit margin of only 0.3%.[265] The net cumulative earnings of the U.S. airline industry is reflected in the following chart.

CUMULATIVE AIRLINE EARNINGS[266]
(in million $)

YEAR	NET PROFIT (LOSS)
1981	3,499.2
1982	2,749.6
1983	2,474.3
1984	3,058.5
1985	3,894.9
1986	3,321.2
1987	4,176.0
1988	4,744.2
1989	3,267.8
1990	(470.4)
1991	(1,800.0)*

* 1991 estimate

Anemic economic performance has forced nearly 200 airlines into bankruptcy since deregulation began in 1978. Some enter Chapter 11 reorganization bankruptcy, continuing operations while seeking to restructure debt. Because they are shielded from their creditors while in Chapter 11, many "trash" the fares in the markets in which they compete, much to the chagrin of carriers operating outside of Chapter 11. Executives at both American and Delta have urged the DOT to revoke the certificates of airlines in bankruptcy on grounds that they fail to satisfy the fitness obligations of the Federal Aviation Act.[267]

The airline industry has placed approximately $80 billion in orders for new aircraft — two to three times the total invested capital in the indus-

1991, at A16. *Few Bright Spots in 1991 for U.S. Carriers*, AVIATION DAILY (Dec. 16, 1991), at 466; *U.S. Airlines Will Lose Another $1.8 Billion in 1991*, AVIATION DAILY, Dec. 10, 1991, at 429.

263. *Will They Ever Fly Again?*, *supra* note 132, at 67.

264. *Almost One in 10 Airline Workers Loses Job; Financial Losses Exceed Gains*, AVIATION DAILY, Oct. 29, 1991, at 177.

265. McGinley, *supra* note 262, at A16.

266. *Cumulative Airline Earnings*, AVIATION DAILY, Oct. 29, 1991, at 177; *updated by U.S. Airlines Will Lose Another $1.8 Billion in 1991*, *supra* note 262, at 429.

267. *Delta Executive Echoes Crandall Remarks On Bankrupt Airlines*, AVIATION DAILY, Feb. 19, 1992, at 296.

try.[268] The industry needs to raise between $130 billion and $200 billion by the end of the decade for new aircraft (investing between $15 billion and $20 billion annually), and another $50 billion for airport and infrastructure improvements.[269] Bear in mind that the airline industry as a whole had operating cash of less than $5 billion and operating earnings of $2.3 billion in 1988, which was a very good year.[270] Excessive debt can have a debilitating effect on the ability of airlines to make new aircraft purchases, expand operations, maintain competition, or withstand the vicissitudes of the market cycle.

I. EMPLOYMENT

Worldwide, civil aviation employs 21 million people.[271] In the United States, more than 2 million Americans are employed in airline or airport operations.[272] Commercial air transportation is an integral part of the tour and travel industry, arguably the world's largest single industry, employing 112 million people.[273] During 1990-1991, about 55,000 U.S. and Canadian airline employees, or nearly one in ten workers in this industry, lost their jobs.[274]

J. EXPENSES

The airline's operating expenses increased 94% during deregulation's first six years.[275] The following changes have occurred in selected expenses as a percentage of total operating expenses from 1980 to 1990:

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268. *Financial Condition*, *supra* note 225, at 589 (statement of Timothy Pettee).

269. McGinley, *supra* note 262, at A16; *U.S. Airlines Will Lose Another $1.8 Billion in 1991*, *supra* note 262, at 429.

270. *Leveraged Buyouts*, *supra* note 254, at 3 (statement of Philip Baggaley); *Id.* at 73 (statement of Timothy Pettee).

271. Eser, *supra* note 254, at 3.

272. TRANSPORTATION RESEARCH BOARD, *supra* note 5, at 21.

273. Eser, *supra* note 254, at 3.

274. *Almost One in 10 Airline Workers Loses Job; Financial Losses Exceed Gains*, *supra* note 264, at 177, (updated by the demise of Pan Am in December, 1991).

275. GAO, COMPETITION: HIGHER FARES AND REDUCED COMPETITION AT CONCENTRATED AIRPORTS 24 (1990).

BREAKDOWN OF OPERATING EXPENSES (1980-1990)[276]

EXPENSE	1980	1990
Labor Salaries and Benefits	37.3%	33.8%
Aircraft Fuel and Oil	31.0%	17.7%
Travel Agent Commissions	3.4%	10.0%
Equipment Rentals	1.8%	7.1%
Landing Fees	1.7%	1.8%
Advertising and Other Promotions	1.7%	2.1%
All Other (e.g. maintenance, food, interest)	21.1%	27.2%

Note that the fastest growing costs during this period were equipment rentals (increasing 781% over this period), and travel agent commissions (rising 308%).[277] Today, 45% of the U.S. fleet is leased.[278] Contrary to the assertions of former U.S. Secretary of Transportation Samuel Skinner, labor costs were not responsible for the disintegration of the economic health of U.S. airlines. As a percentage of operating expenses, labor costs declined during this period.

Every cent a gallon increase in jet fuel costs the industry about $150 million.[279] Much of the industry's economic anemia occurring in 1990-91 was blamed in the spike in fuel costs precipitated by Operation Desert Storm. Actually, aviation fuel cost more per gallon between 1981 and 1984 (when it ranged between $0.79 and $1.04 per gallon, or adjusted for inflation, between $1.40 and $1.47), than in 1990 (when it sold for only $0.80 per gallon).[280] Fuel costs dropped 31% between 1985 and 1986.[281] By December 1991, the spot price of aviation fuel was just $0.47 per gallon.[282]

K. INTERNATIONAL AVIATION

The economic well being of some airlines appears to be driven by disproportionate profits earned on international routes. For example, between 1987 and 1989, Northwest earned between 68% and 91% of its total operating profit from international markets, while United earned be-

276. *Comparison of Selected Airline Industry Expenses*, AVIATION DAILY, July 29, 1991, at 176.

277. *Salaries Have Doubled Since 1980; Other Expenses Grew Faster*, AVIATION DAILY, July 29, 1991, at

278. *Aircraft Leasing Firms Seek to Protect Assets*, AVIATION DAILY, Apr. 22, 1991, at 147.

279. *Plummeting Jet Fuel Prices to Have Little Effect on Air Ticket Prices*, AVIATION DAILY, Dec. 30, 1991, at 545.

280. Flint, *Don't Blame It All On Fuel*, AIR TRANSPORT WORLD, Feb. 1991, at 32.

281. *Id.*

282. *Plummeting Jet Fuel Prices to Have Little Effect on Air Ticket Prices*, *supra* note 279, at 545.

tween 24% and 34% from its international routes.[283]

The following chart identifies the source of foreign tourists in the United States.

TOP TEN TOURIST GENERATING NATIONS[284]
(January-May, 1991)

COUNTRY OF RESIDENCE	NUMBER OF ARRIVALS	PERCENTAGE OF TOTAL
Canada	6,712,141	53.1
Japan	1,087,298	8.6
United Kingdom	847,244	6.7
Germany	488,452	3.8
Mexico	469,811	3.7
France	271,080	2.1
Australia	166,373	1.3
Brazil	156,342	1.2
Italy	130,193	1.0
China	114,177	0.9

Of course, not all tourists fly. Many from Canada or Mexico drive their automobiles. A better indication of the nations which are responsible for generating the largest number of airline passengers is provided by the following chart:

TOP TEN NATIONS GENERATING AIRLINE PASSENGER TRAFFIC TO AND FROM THE UNITED STATES (1989)[285]

COUNTRY	TOTAL TRAFFIC (000)	% U.S. CITIZENS	% U.S. FLAG
United Kingdom	9,166	50	51
Japan	8,199	24	55
Mexico	7,473	72	55
Germany	4,199	57	51
France	3,064	55	64
Bahama Islands	2,855	75	74
Dominican Republic	1,772	77	77
Jamaica	1,697	72	38
Netherlands	1,467	49	14
Italy	1,440	62	54

283. M. Jedel, Post Deregulation Strategic Employment Relations Response of the Successful, Surviving Major Domestic Airlines: A Story Not Fully Told 42 (1991) (unpublished monograph).

284. Data shown are from January to May, 1991. *Tourist Travel Rebounds in 2d Quarter 1991, Spending Also Up*, AVIATION DAILY, Sept. 24, 1991, at 561.

285. *Passenger Traffic to and from the U.S. and Other Countries, Top 50 Countries Ranked by Passengers, The Year 1989*, AVIATION DAILY, July 18, 1990, at 112.

Forty-four million people will visit the United States in 1992.[286] Brazil is expected to have the strongest growth in visitors to the United States in 1992, with traffic increasing 14%, followed by Italy (12%) and France (8%).[287] Foreign travel to the U.S. increased by 67% between 1986 and 1991, while U.S. travel abroad rose only 23%.[288] Some 30% of U.S. citizens were expected to travel abroad in 1992, with the most likely group between 45 and 49 years old and family income of more than $40,000 a year.[289]

The following chart identifies the largest foreign airlines.

TEN LARGEST FOREIGN AIRLINES[290]
(first half, 1989)

AIRLINE	PASSENGERS	REVENUE PASSENGER KM
British Airways	12,160,847	31,610,696
Lufthansa	10,462,100	19,335,800
Air France	17,462,529	17,462,529
Singapore Airlines	3,407,000	15,232,600
Qantas Airways	2,061,927	13,548,823
KLM Royal Dutch Airlines	3,523,888	12,422,988
Canadian Airlines Int'l	4,806,322	11,792,132
Iberia Airlines	7,513,147	10,257,747
SAS	7,321,000	7,943,000
Swissair	7,765,844	7,765,844

In recent years, foreign airlines have purchased major equity interest in U.S. flag carriers.

FOREIGN AIRLINE OWNERSHIP OF U.S. AIRLINES

FOREIGN AIRLINE	PERCENTAGE OWNERSHIP	U.S. AIRLINE
SAS	18.4%	Continental
Swissair	5%	Delta
Singapore Airlines	5%	Delta
Ansett Airlines	17%	America West
Japan Air Lines	20%	Hawaiian Airlines
KLM	49%	Northwest
British Air	15%*	United

* proposed; later withdrawn

286. *U.S. Travel Industry Encouraged by Influx of Foreign Visitors*, AVIATION DAILY, Oct. 29, 1991, at 180.

287. *Intelligence*, AVIATION DAILY, Oct. 28, 1991, at 167.

288. *Id.*

289. *Thirty Percent of U.S. adults to Travel Internationally in 1992*, AVIATION DAILY, Feb. 21, 1992, at 317.

290. *International Carriers Traffic, First 6 Months 1990*, AVIATION DAILY, Jan. 7, 1991, at 36.

Foreign equity alliances have also proliferated, as revealed by the following chart.

CROSS OWNERSHIP AGREEMENTS BETWEEN FOREIGN AIRLINES[291]

PURCHASER	PERCENTAGE OWNERSHIP	TARGET
Air France	1.5%	Austrian Airlines
Air France	71%	UTA
Air France	37%	Air Inter
Air France	2%	Austrian Airlines
American	8%	Air New Zealand
ANA	10%	Austrian Airlines
Cathay Pacific	35%	Dragonair
Delta	3%	Singapore Airlines
Delta	5%	Swissair
Iberia	85%	AerolineasArgentinas
Japan Air Lines	8%	Air New Zealand
KLM	15%	Air UK
Qantas	20%	Air New Zealand
SAS	5%	Swissair
SAS	35%	Lan Chile
SAS	25%	Airlines of Britain
SAS	16%	CTA
Singapore	3%	Swissair
Swissair	10%	Austrian Airlines
Swissair	5%	SAS

L. PENSION LIABILITY

Several airlines have seriously unfunded pension plans. TWA's pensions were unfunded by $190 million in 1990, $440 million in 1991, and $933 million in 1992.[292] Concern over Carl Icahn's privatization of TWA, and the potential that the taxpayer might be stuck with paying its unfunded pension liability led Congress to pass legislation making Mr. Icahn personally responsible for the bill.[293] In 1990, United's pension was unfunded by $57 million; Northwest's was unfunded by $78 million.[294] Continental's was unfunded by $183 million, and the Pension Benefit

291. *The Financial Condition of the Airline Industry and the Adequacy of Competition: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 102d Cong., 2d Sess. VII (1991) (statement of Helane Baker, vice president, Lehman Brothers). *Going Steady*, ECONOMIST, July 22, 1989, at 39; and *Overlapping Airlines: Recent Investments*, WALL ST. J., July 23, 1991, at A6.

292. *Three Majors Among Top 50 Firms With Unfunded Pensions*, AVIATION DAILY, Nov. 26, 1991, at 355; *TWA Surprises Industry With Early Chapter 11 Bankruptcy Filing*, AVIATION DAILY (Feb. 3, 1992), at 199.

293. *Bill Binding TWA Chairman to Pensions Passed in Congress*, AVIATION DAILY, Dec. 2, 1991, at 372.

294. *Three Majors Among Top 50 Firms With Unfunded Pensions*, *supra* note 292, at 355.

Guarantee Corporation [PBGC] filed a claim in Continental's bankruptcy seeking to recover $752 million in unfunded Eastern Air Lines liability.[295]

Several carriers which have ceased operating left the PBGC holding the bag. These included Pan Am ($914 million unfunded), and as noted above, Eastern ($752 million unfunded).[296] It has been predicted that unfunded pension plans left high and dry by the disintegration of airlines may ultimately cost the U.S. taxpayer $1.7 billion.[297]

In January 1992, the Pension Benefit Guaranty Corporation filed to block Continental's $290 million sale of Air Micronesia to an investor group on grounds that Continental Airline Holdings owes approximately $700 million in unfunded pension liability.[298]

M. PRICING

By the end of the first decade of deregulation, the full unrestricted "Y" fare had increased 156%, double the inflation rate.[299] With the full fare rising so sharply, relatively few passengers would pay it. During 1991, 95% of all passengers were flying on a discount, with the average discount some 66% off the full fare.[300]

Discounted fares are targeted at discretionary (vacation) travelers. So as to dissuade business travelers from using them, they ordinarily come saddled with restrictions — nonrefundability, advance purchase requirements, and Saturday night stay over obligations. However, large corporations can often negotiate a contract rate with airlines which includes the discounted fares, but is largely devoid of restrictions.[301]

Air fares at small and medium sized communities are nine percent higher, on average, than at large communities.[302] And, as noted above, fares are some 27% higher for trips beginning or ending at concentrated hub airports.[303] Fares in monopoly markets (about 10% of the total markets), are about 10% higher than competitive markets.[304] In 1992, the U.S. Department of Justice launched an antitrust investigation of the air-

295. *Continental Withholds $17 Million Pension Payment*, *supra* note 179, at 67.
296. *Three Majors Among Top 50 Firms With Unfunded Pensions*, *supra* note 292, at 355.
297. *Airline Financial Woes Trigger Pension Underfunding Crisis*, AVIATION DAILY, Feb. 21, 1991, at 339.
298. *PBGC Moves to Block Sale of Continental's Stake in Air Micronesia*, AVIATION DAILY, Jan. 23, 1992, at 139.
299. James Ott, *Industry Officials Praise Deregulation, But Cite Flaws*, AVIATION WK. & SPACE TECH., Oct. 31, 1988, at 88.
300. *Few Bright Spots in 1991 for U.S. Carriers*, *supra* note 262, at 466.
301. *See Business and the Airlines Play Let's Make a Deal*, BUS. WK., Mar. 4, 1991, at 54.
302. *Fares at Smaller Airports Show Greatest Drop Since 1978*, AVIATION DAILY, Dec. 18, 1990, at 520.
303. GAO, AIR FARES AND SERVICE AT CONCENTRATED AIRPORTS, *supra* note 224.
304. *Financial Condition*, *supra* note 225, at VII.

line industry for allegedly engaging in price fixing.[305] An American Airlines vice president colorfully rebutted the contention of monopolization, saying, "We're obviously not enjoying monopoly prices because we're all losing our butts."[306]

In 1992, American Airlines led a rate rationalization attempt which significantly reduced the number of fare categories, lowering the highest fares and raising the lowest fares. The new simplified rate structure would allegedly be easier for consumers to understand. It would also allow American to reduce the number of its employees devoted to yield management. Also, rate simplification might enable the industry eventually to roll back travel agent commissions, which have been the second largest increasing item of operating expenses. Critics charged that the fares might drive some of the airlines in Chapter 11 into the abyss of liquidation.

At any given time, consumers hold some $3.5 billion in prepaid tickets.[307] Hence, bankruptcies can leave many travelers stranded, literally and financially.

N. PUBLIC EXPENDITURES

In 1991, the state of Minnesota gave an incentive package worth $838 million to Northwest Airlines to build an aircraft maintenance complex in the state.[308] Included was $320 million in low-interest loans provided by the Metropolitan Airports Commission, operator of the Minneapolis/St. Paul Airport, as well as $350 million in bonds to construct the complex. The complex was expected to add approximately 1,900 new jobs to the state, on top of the 18,000 Northwest already employed in Minnesota.[309]

A study performed by the European Community Commission conservatively estimated that the U.S. government gave the airline industry between $33.5 billion and $41.5 billion in direct and indirect support from the mid-1970s to present.[310] The investment includes between $12.4 billion and $20.2 billion in aeronautics R&D from the U.S. Defense Department, between $1 billion and $1.2 billion in independent R&D reimbursed by the U.S. Department of Defense [DOD], and $17 billion from NASA

305. Asra Q. Nomani, *U.S. Steps Up Probe on Fixing of Air Fares*, WALL ST. J., Mar. 18, 1992, at A3.

306. O'Brian, *supra* note 165, at B1, B10. *See also* Asra Q. Nomani, *Airlines Claim Inquiry on Fares Is Unwarranted*, WALL ST. J., Mar. 19, 1992, at A3.

307. *Intelligence*, *supra* note 135, at 359.

308. *Minnesota Legislature Gives Final Approval to Northwest Incentive Package*, AVIATION DAILY, Dec. 17, 1991, at 474.

309. *Id.*

310. *EC Study: U.S. Gave Up to $41.5 Billion to Aircraft Industry*, AVIATION DAILY, Dec. 5, 1991, at 401.

programs. It also estimated that total tax deferrals and exemptions granted the industry have exceeded some $3.5 billion since 1976.[311]

One criticism which has been levied at the U.S. Department of Transportation is that while it has accumulated some $16 billion dollars in the Airport and Airway Trust Fund,[312] it refuses to spend it, preferring instead to use it to offset a $15 billion piece of the $3 trillion U.S. budget deficit.

O. Public Opinion

In 1978, various public opinion polls revealed that airlines ranked at the very top of all industries in terms of consumer confidence and satisfaction.[313] But in 1989, when the *Wall Street Journal* polled Americans to discern the industries in which they had most, and least, confidence, the largest number by far, 43%, said they had no confidence in the airline industry.[314] The disapproval ratings for the industries which followed — insurance (27%), banking (23%), oil and gas (22%), and stockbrokers (22%) — was not nearly as high as that for airlines.[315]

The following chart reveals the comparative rankings of major airlines on the basis of consumer complaints filed with the DOT.

CONSUMER COMPLAINTS AGAINST MAJOR U.S. AIRLINES[316]
(per 100,000 passengers)

AIRLINE	JANUARY 1989	JANUARY 1990	JANUARY 1991
America West	3.98	2.10	2.82
American	1.82	0.97	2.47
Continental	4.99	3.75	1.47
Delta	0.97	0.61	0.54
Eastern	4.06	4.72	N/A
Northwest	2.54	2.09	1.61
Pan Am	5.23	6.98	3.99
Southwest	0.81	0.58	0.68
TWA	5.48	7.80	7.19
United	2.63	1.74	1.77
USAir	2.39	4.29	0.67
AVERAGE	2.74	2.64	1.91

311. *Id.*

312. *See Airport and Airway Trust Fund, Balance Sheet, As of October 31, 1991*, AVIATION DAILY, Jan. 2, 1992, at 7; *Airport and Airway Trust Fund, Balance Statement, As of February 28, 1991*, AVIATION DAILY, Apr. 26, 1991, at 190; *Airport and Airway Trust Fund, Balance Statement, As of November 30, 1990*, AVIATION DAILY, Jan. 24, 1991, at 159; *Airport and Airway Trust Fund, Balance Statement, As of June 30, 1990*, AVIATION DAILY, Aug. 17, 1990, at 322.

313. Callison, *supra* note 65, at 964 n.4 (citing 236 AVIATION DAILY 118 (1978)).

314. Christopher Winans & Jonathan Dahl, *Airlines Skid on Bad Moves, Bad News*, WALL ST. J., Sept 20, 1989, at B1.

315. *Id.*

316. *Rankings of U.S. Carriers Consumer Complaints Per 100,000 Passengers*, AVIATION

The following chart breaks down consumer complaints by type.

CONSUMER COMPLAINTS BY CATEGORY[317]

PROBLEM	PERCENTAGE OF TOTAL NOV. 1988	NOV. 1989
Flight Problems	32.8	37.5
Baggage	18.3	17.6
Refunds	7.8	11.3
Customer Service	10.8	9.6
Reservations, Ticketing, Boarding	7.2	8.8
Oversales	5.7	4.2
Fares	2.2	2.6
Smoking	3.2	1.8
Advertising	0.6	1.5
Tours	.0	0.3
Credit	.0	0.1
Other	10.9	4.2

Still another measure of service is on-time arrival, skewed somewhat because of the way in which DOT measures it (e.g., a flight must be more than 15 minutes late to be considered late):

ON TIME ARRIVALS, BY CARRIERS[318]
(Sept 1987 - Aug 1991)

RANK	AIRLINE	PERCENTAGE ON TIME
1.	America West	84.1
2.	Southwest	82.3
3.	Midway	81.5
4.	American	81.3
5.	Alaska	80.1
6.	Northwest	79.8
7.	Eastern	79.5
8.	Delta	78.7
9.	Pan Am	78.6
10.	Continental	78.4
11.	USAir	78.0
12.	TWA	76.8
13.	United	75.7
AVERAGE		78.8

The American Automobile Association surveyed Americans to iden-

DAILY, Mar. 8, 1990, at 474; *Rankings of U.S. Carriers Consumer Complaints, January 1991, January 1990*, AVIATION DAILY, Mar. 8, 1991, at 454.

317. *Consumer Complaints Against U.S. Carriers Reported to DOT*, AVIATION DAILY, Jan. 10, 1990, at 70.

318. *Overall Percentages of Reported Domestic Flights Arriving On Time, By Carrier*, AVIATION DAILY, Oct. 9, 1991, at 63.

tify their principal concerns. Dubbed the "Hassle Index", it found that 23% said the cost of air service was their principal concern (only 7% said that in 1990). Safety rated second at 22%, while 10% were concerned about the condition of the aircraft, and 8% with traffic congestion. Forty-two percent believed that fares became worse during 1991 (compared with 34% in 1990).[319]

A poll conducted in late 1992 by the Roper Organization revealed that 37% approved of the current level of government regulation of fares and service, while 33% thought there was not enough; 51% of Americans believe that safety regulation is not strong enough, while 21% believe that safety regulation is sufficient.[320]

P. SAFETY

Fatality rates suggest air travel is among the safest modes of transportation — 19 times safer than traveling by automobile. Between 1975 and 1989, the risk of death was only one in 10 million.[321]

Although the long-term accident and fatality trend declined both before and after deregulation, the accident experience of U.S. passenger carriers became worse in the second half of the 1980s.[322] In 1989, the industry suffered the highest number of fatal accidents since 1968.[323]

More recently, the fatality and accident picture has improved. The U.S. commercial airline industry had but two fatal accidents in 1991, and six the previous year.[324]

However, the commuter industry's safety record in the post-deregulation period is about four times worse than that of the large commercial carriers.[325] In 1991 commuter passenger fatalities reached their highest level since the NTSB began tracking it in 1977.[326] In fact, the fatality accident rate was higher for commuter airlines using aircraft with 30 or fewer seats than the major carriers for every year during the 1980s.[327]

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319. *Cost of Air Travel Replaces Safety As Main Concern to Travelers*, AVIATION DAILY, Jan. 7, 1992, at 28.

320. *Union Releases Survey on Deregulation With Mixed Findings*, AVIATION DAILY, Nov. 25, 1991, at 342.

321. Sonia Nazario & Wartzman, *Bungled Evacuation Test Raises Concern About Stuffing More Seats Into Airplanes*, WALL ST. J., Nov. 1, 1991, at B1.

322. Bruggink, *U.S. Aviation Accidents and Deregulation*, AIR LINE PILOT, Mar. 1991, at 20, 24.

323. *Fatal Accidents Highest Since 1968, Safety Board Reports*, AVIATION DAILY, Jan. 18, 1990, at 122.

324. *Few Bright Spots in 1991 for U.S. Carriers*, *supra* note 262, at 466.

325. Bruggink, *supra* note 322, at 20, 23.

326. Laurie McGinley, *Rise in Commuter Plane Fatalities Sparks Call to Toughen Rules, Improve Training*, WALL ST. J., Nov. 12, 1991, at B1; *Year Ends With Fewest Fatal Airline Accidents Since 1986*, AVIATION DAILY, Jan. 3, 1992, at 9.

327. McGinley, *supra* note 326, at B1.

Some have argued that, under deregulation, economics drives the safety margin as they do all costs. In 1991, several former Eastern Airline employees were indicted by a Brooklyn grand jury on charges that they deliberately falsified maintenance logs and failed to perform maintenance on critical aircraft parts including altimeters, compasses, wing flaps, cockpit landing gear lights, auto pilot systems and fuel gauges.[328]

Q. TAXES

According to the Air Transport Association, taxes rose 81% from 1981 to 1991, and cost the industry $6 billion a year.[329] Among the taxes imposed on individual tickets are the following: TICKET TAX (10%); PASSENGER FACILITY CHARGES (up to $12 per trip); CARGO WAYBILL TAX (6.25%); CUSTOM USERS FEE ($6); IMMIGRATION USER FEE ($5); and AGRICULTURAL PLANT/HEALTH INSPECTION SERVICE USER FEE ($2).[330]

In 1990 and 1991, several airlines proposed that the U.S. government allow it to borrow the 10% ticket tax it collects from passengers, which generates about $4 billion a year.[331] U.S. airlines pointed out that the government of France had provided approximately $400 million to Air France, the Belgian government had given about $300 million to Sabena, and the Italian government was planning to give more than $300 million to Alitalia.[332]

R. WALL STREET STOCK VALUE

In 1990 and 1991, the stock value of all U.S. major airlines combined ranged from a low of about $9 billion (in December 1990) to a high of $14 billion (in May 1990, and May 1991). The value of all national airlines ranged from a low of about $550 million (in November 1990), to a high of about $1.2 billion (in December 1991).[333] The stock value of the regional airlines combined ranged from a low of $75 million (in September 1990) to a high of $187 million (in December 1991).[334] The stock value of the all-cargo airlines combined ranged from a low of $1 billion (in November

328. *Federal*, AVIATION DAILY, Mar. 11, 1991, at 457; *Nine More Eastern Supervisors Charged With Falsifying Records*, AVIATION DAILY, Feb. 15, 1991, at 312.

329. *Airlines Letting Passengers Know About Taxes*, AVIATION DAILY, Dec. 16, 1991, at 467.

330. *Id.*

331. A. Nomani, Sr. & Laurie McGinley, *Airlines Weigh Plans to Seek Federal Help*, WALL ST. J., Feb. 19, 1991; *Little Support Shown in Washington for Ticket Tax Proposal*, AVIATION DAILY, Feb. 25, 1991, at 361.

332. *DOT Says 'Hands Off' Best Approach to Helping Competition*, AVIATION DAILY, Mar. 6, 1991, at 427.

333. *Value of Airline Stocks Soar Despite Financial Losses*, AVIATION DAILY, Jan. 8, 1992, at 36.

334. *Id.*

1990) to a high of $3.8 billion (in April 1990).[335] The combined value of all cargo and passenger airlines ranged from a high of $18.7 billion in May 1991 to a low of $15.6 billion in November 1991.[336]

IV. CABOTAGE, FOREIGN OWNERSHIP AND INTERNATIONAL AVIATION

A. CABOTAGE

The legal concept of cabotage has its origin in maritime law. It is thought to have originated from either the French word "cabot," meaning a small vessel, or the Spanish word "cabo," or "cape," which described navigation from cape to cape along the coast without entering the high seas.[337]

In aviation law, cabotage is essentially defined as the transportation of passengers, cargo or mail by a foreign airline between two points in the same nation — the foreign carriage of domestic traffic. It was first articulated in aviation law in 1910, as the French objected to German balloons flying entering French air space.[338] The Paris Convention of 1919 recognized cabotage formally, providing in Article 16 that nations could favor its airlines "in connection with the carriage of persons and goods for hire between two points in its territory."

Article 7 of the Chicago Convention of 1944 addressed the issue in two sentences.[339] The first provides: "Each contracting State shall have the right to refuse permission to the aircraft of other contracting States to take on in its territory passengers, mail and cargo carried for remuneration or hire and destined for another point within its territory." Thus, each nation has exclusive sovereignty over its airspace, and may reserve its domestic traffic to its domestic carriers.

The second sentence of Article 7 provides: "Each contracting State undertakes not to enter into any arrangements which specifically grant any such privilege on an exclusive basis to any other State or an airline of any other State, and not to obtain any such exclusive privilege from any other State." The literal language strongly suggests that if a nation gives away cabotage rights to another state's airline(s), it must give them to all nations on a nondiscriminatory basis.

In the United States, cabotage prohibitions originated in the Air Com-

335. *See* AVIATION DAILY, Dec. 4, 1991, at 396; & AVIATION DAILY, May 3, 1991, at 235.

336. *U.S. Carriers' Market Value Declines to Lowest Point of Year*, AVIATION DAILY, Dec. 4, 1991, at 392.

337. Schraft & Rosen, *Cabotage Or Sabotage?*, AIRLINE PILOT, Oct. 1987, at 27.

338. *International Air Transportation Competition Act of 1979: Hearings on S. 1300 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science and Transportation*, 96th Cong., 1st Sess. 244-45 (1979) (statement of ABA Section on International Law).

339. Convention on International Civil Aviation, Opened for signature, Dec. 7, 1944, 61 Stat. 1180, T.I.A.S. No. 1591, Art. 7.

merce Act of 1926.[340] Cabotage is generally prohibited under section 1108(b) of the Federal Aviation Act. Under section 401 of the Act, only air carriers (defined as U.S. citizens) may ply the domestic trade.[341] Noncitizens may operate as "foreign air carriers" under section 402, but they must acquire a section 402 permit and their transport rights are limited to foreign air transportation.[342]

In 1991, negotiations between Canada and the United States on a new bilateral air transport agreement included discussions of a partial exchange of cabotage rights. In defining negotiating objectives, Congress in 1979 amended the Federal Aviation Act to include a provision requiring "opportunities for carriers of foreign countries to increase their access to United States points if exchanged for benefits of similar magnitude of United States carriers or the traveling public with permanent linkage between rights granted and rights given away;"[343] Canada has a larger land mass than the United States, and therefore potentially offers more potential destinations than would most other nations. But the United States has 24 city-pairs that generate more than one million passengers annually, while Canada has but one. The domestic passenger and cargo market in the United States is many times larger and richer than any other domestic market (even that of a combined European Community) that an exchange of equal rights of "similar magnitude" would be a practical impossibility. As Duane Woerth, vice president of the Air Line Pilots Association, noted, "It's like exchanging gold for tin. Only a zealot who believed in trade for trade's sake could support such an imbalance as fair or astute."[344] The following chart reveals the disproportionate size of the U.S. market vis-a-vis foreign markets, and suggests that no foreign market would be of comparable size to justify an exchange of cabotage rights.

340. 67 Stat. 489.

341. *See* 49 U.S.C. § 1301(3), 1371 (1988).

342. 49 U.S.C. § 1301(19), 1372 (1988). PAUL S. DEMPSEY, LAW & FOREIGN POLICY IN INTERNATIONAL AVIATION 78 (1987).

343. 49 U.S.C. § 1502(b)(8) (1988).

344. Letter from Captain Duane E. Woerth to Paul Stephen Dempsey (July 24, 1991).

1990 AVAILABLE SEAT MILES BY GEOGRAPHICAL REGION
ALL U.S. AND FOREIGN SCHEDULED CARRIERS

MARKET CATEGORY	ASMs (billions)	PERCENT OF MARKET CATEGORY	PERCENT OF WORLD
U.S.-Related			
U.S. Domestic	582.4	76.1%	37.8%
U.S.-Europe	83.4	10.9%	5.4%
U.S.-Far East	46.8	6.1%	3.0%
U.S.-Other	52.6	6.9%	3.4%
Sub-Total U.S.	765.2	100.0%	49.6%
Europe-Related:			
Europe Domestic	58.0	17.2%	2.8%
Intra-Europe	84.8	25.1%	5.5%
Europe-U.S.	83.3	24.7%	5.4%
Europe-Far East	44.0	13.0%	2.8%
Europe-Other	67.1	19.9%	4.4%
Sub-Total Europe	337.2	100.0%	21.9%
Asia-Related (Far East)	67.9	24.7%	4.4%
Asia Domestic	75.6	27.5%	4.9%
Intra-Asia	47.6	17.3%	3.1%
Asia-U.S.	42.1	15.3%	2.7%
Asia-Rest of World	41.5	15.1%	2.7%
Sub-Total Asia Related	274.6	100.0%	17.8%
Rest of World	165.5	100.0%	17.8%
Total World	1,542.6	100.0%	100.0%

Exchanging cabotage rights would require a statutory change, and therefore could not be negotiated without Congressional approval. Moreover, as noted above, Article 7 of the Chicago Convention insists that giving cabotage rights to one nation requires that it be given to all in a scheme resembling most favored nation basis.

However, an exemption from the cabotage restrictions is available under certain emergency conditions. In 1979, Congress promulgated the International Air Transportation Competition Act, which amended the Act to allow the U.S. Department of Transportation to confer a 30-day exemption from the cabotage prohibition if it finds the "public interest" so requires, and ". . . because of an emergency created by unusual circumstances not arising in the normal course of business, traffic in such markets cannot be accommodated by . . ." U.S.-flag carriers, all efforts have been made to accommodate such traffic needs using U.S. airlines (including their lease of foreign aircraft), and the exemption is necessary to avoid undue hardship for the traffic in the market. Where the traffic

inconvenience results from a labor dispute, such exemption must not result in an undue advantage to any party thereto.[345]

The Department of Transportation has found that these requirements were satisfied in several emergency situations. For example, DOT granted an emergency cabotage exemption to allow Heavylift (a U.K.-flag carrier) to provide one-way cargo charter flights between Houston, Texas, and St. Thomas, U.S. Virgin Islands, to support recovery operations in the Virgin Islands in the aftermath of Hurricane Hugo.[346] In order to support oil spill clean-up operations at Valdez, Alaska, the DOT granted North West Territorial Airways Ltd. (a Canadian-flag carrier) an emergency cabotage exemption to provide one-way cargo charter operations between Los Angeles and Anchorage.[347]

The DOT has granted such exemptions by telephone. For Example, on April 28, 1987, Qantas Airways (an Australian-flag carrier) requested an emergency cabotage exemption by telephone to transport a single passenger from Honolulu to San Francisco. The passenger was the father of an injured boy being transported from Hadi, Fiji, to the United States on a scheduled Qantas Australia-Nadi-Honolulu-San Francisco flight. DOT concluded that the waiver was clearly required on humanitarian grounds, constituted unusual circumstances, and could not have been accommodated by U.S. carriers since the son was already aboard a Qantas flight and his physical transfer to a U.S. carrier was not practical.[348]

But, when U.S. airlines have been available to provide the service, the DOT has declined to grant the exemption. For example, the DOT denied the application of Lineas Aereas Del Caribe (a Columbian-flag carrier) to transport cattle from Miami to San Juan, Puerto Rico, when it was advised that two U.S. carriers were available to provide the proposed service.[349]

B. *Code Sharing and Blocked Space Arrangements*

Cabotage restrictions may be avoided in various ways, including "sharing codes, making 'blocked space' arrangements for both passengers and cargo, obtaining an ownership interest in a U.S. carrier, making arrangements between U.S. and foreign carriers covering computer reservations systems, and setting up joint frequent flier and marketing

345. 49 U.S.C. § 1386(b)(7) (1988). DOT may renew the exemption for periods of up to 30 days. However, the exemption terminates not more than five days after the unusual circumstances that created its need end. *Id.*

346. Application of Heavylift Cargo Airlines Ltd., DOT Order 89-10-7 (1989), at 2.

347. Application of North West Territorial Airways Ltd., DOT Order 89-4-1 (1989), at 2.

348. Application of Qantas Airways Ltd., DOT Order 87-6-63 (1987), at 2.

349. Application of Lineas Aereas Del Caribe, S.A., DOT Order 86-8-37 (1986), at 1.

programs."[350]

"Blocked space" arrangements involve the leasing or reservation of a specific number of seats by one passenger airline for its passengers to be flown in aircraft operated by another airline. They allow airlines the advantage of offering on-line connections and the potential to draw greater traffic as a result of having one carrier listed in the computer reservations systems, on timetables, and in advertisements, rather than two connecting carriers. For example, Northwest might enter into a blocked space agreement with KLM whereby Northwest would sell up to a specified number of seats on the KLM Minneapolis-Amsterdam flight to Northwest's customers.

"Code share" arrangements involve the listing in the computer reservation systems of the connecting flights of two airlines as a single through flight number. For example, Continental might show a through Continental flight number from Houston to Stockholm via Newark, although the passengers would fly via Continental from Houston to Newark, and via SAS from Newark to Stockholm.

In considering whether blocked space or code sharing arrangements are in the public interest, the DOT considers such issues as the extent to which the authority involved is consistent with applicable bilateral air transport agreements, whether reciprocity exists on the part of the nation whose flag the foreign carrier flies, and what benefits would accrue to U.S. carriers, passengers and shippers under the proposed arrangements.[351]

The DOT categorizes "blocked space" agreements, "part-charter" agreements, "code share" agreements, and "wet-lease" agreements as constituting joint service operations, which must be reported to DOT.[352] DOT regulations also require disclosure of code-sharing relationships to consumers. They specify that single air carrier designator codes by two or more air carriers are unfair and deceptive competitive practices within the meaning of section 411 of the Federal Aviation Act unless air carriers,

350. Schraft & Rosen, *supra* note 337, at 29.

351. Joint Application of American Airlines, Inc. and Lufthansa German Airlines, DOT Order 91-4-13 (1991), at 2.

352. 14 C.F.R. § 217.10 App. (i)(1) (1992). These joint service operations must be reported in Form 41 Schedules T-100 and T-100(f) and fall within the following guidelines: (1) blocked-space, part-charters, and code-sharing agreements must be reported by the air carrier in actual operational control of the flight; (2) wet lease agreements must be reported by the lessee as though the leased aircraft and crew were a part of the lessee's own fleet. 14 C.F.R. § 217.10, App. (i)(2). A blocked-space agreement which lasts more than 60 days, or is part of a series of leases that amount to a continuing arrangement lasting more than 60 days, will be construed as a "long-term wet-lease." U.S. carriers file under 14 C.F.R. § 207; foreign air carrier lessors to U.S. carriers or foreign carriers file under 14 C.F.R. § 212. See Application of American Airlines, Inc., DOT Order 87-6-57 (1987), at 1. A "wet-lease" is a lease whereby the lessor provides both the aircraft and the crew.

in conjunction with the use of the shared codes, give reasonable and timely notice of the existence of such arrangements. Reasonable notice requires that air carriers, at minimum: (1) identify, with an asterisk or in some other manner, all flights in which the airline code differs from the code of the air carrier actually providing the service; (2) orally inform the consumer that the flight will not be provided by the air carrier whose code is used on the computer, but will instead be provided by a different carrier; and (3) provide frequent, periodic notice in advertising so that potential passengers and travel agents will be cognizant of the code-sharing relationship and the identities of the airlines which are actually providing the underlying service.[353]

Generally, "blocked-space" arrangements for the shipment of cargo have been allowed.[354] For example, in 1986, the DOT granted Flying Tigers permission to enter into a "blocked-space" arrangement with Canadian Pacific Air Lines [CPAL] pursuant to which CPAL would lease half the cargo capacity on two Tigers' flights from New York to Hong Kong and return, marketing its share of the cargo under Tigers' name.[355]

However, "blocked-space" agreements regarding passenger space have been relatively less successful. For example, in 1987 American Airlines requested permission to enter into a "blocked-space" agreement with Qantas whereby American would provide 10 first class and 25 coach seats on some of its trans-continental flights from Los Angeles and San Francisco to New York, and return. These seats were to be held out as Qantas' with notification to passengers that the service would be provided by American. As a blocked space arrangement of more than 60 days, it was treated by DOT as a "wet-lease" transaction,[356] which would have increased Qantas' capacity between Australia and New York from 0 to 840 seats per month. The DOT concluded that such an arrangement would not then be in the public interest for it would confer a valuable discretionary benefit upon Qantas under circumstances where U.S.-Australian aviation relations were under review.[357] But in 1988, the DOT granted American's previously deferred application for a "blocked-space" arrangement with Qantas, citing changed relations between the United States and Australia.[358]

353. 14 C.F.R. § 399.88 (1992).
354. *American Airlines v. CAB*, 358 F.2d 310 (1966).
355. Joint Application of the Flying Tiger Line, Inc. and Canadian Pacific Air Lines, Ltd., DOT Order 86-12-72 (1986), at 1.
356. 14 C.F.R. § 207.10 (1992).
357. Application of American Airlines, Inc., DOT Order 87-6-57 (1987), at 2.
358. Application of American Airlines, Inc., DOT Order 88-1-52 (1988), at 1.

C. *Foreign Alliances: Frequent Flyer Programs, Computer Reservations Systems and Foreign Ownership*

Foreign alliances with U.S. airlines began in the 1980s with shared frequent flyer programs, then entered computer reservations systems, and now have turned to outright equity ownership. The following chart reveals the alliances of the two dominant European computer reservations systems.

EUROPEAN COMPUTER RESERVATIONS SYSTEMS PARTNERS

COVIA	AMADEUS
United	Texas Air
British Airways	Air France
KLM	Lufthansa
Swissair	Iberia
Alitalia	SAS
USAir	

International airline alliances have been stimulated by the prospect for liberalizing European transport in 1992.[359] Having witnessed the intense shakeout deregulation produced in America, foreign management believes that the liberalization of competition rules will result in extreme concentration. The conventional wisdom is that, when the dust settles from U.S. deregulation and international aviation liberalization, only a handful of global megacarriers will dominate air transport. Several industry experts predict that the world's air transport system will eventually be dominated by just eight to ten global megacarriers.

Wanting to be among the survivors motivated the contemporary surge in international combinations and alliances. Moreover, with the Europe's aviation infrastructure even more saturated than America's, opportunities for growth are largely limited to acquiring or affiliating with existing airlines.

Foreign airlines are deeply interested in penetrating the U.S. passenger market — a market larger than that of the rest of the world combined. In the last few years, KLM bought a huge piece of Northwest, SAS purchased a chunk of Continental, Singapore Airlines and Swissair each acquired a slice of Delta, and British Airways (which gobbled up British Caledonian) sought a share of United Airlines. The following chart depicts the substantial foreign airline interests in U.S. flag carriers:

359. Paul S. Dempsey, *Aerial Dogfights Over Europe: The Liberalization of EEC Air Transport*, 53 J. AIR L. & COM. 615 (1988); DEMPSEY, *supra* note 342, at 93-108, 241-56.

FOREIGN AIRLINE OWNERSHIP OF U.S. AIRLINES

FOREIGN AIRLINE	PERCENTAGE OWNERSHIP	U.S. AIRLINE
SAS	18.4%	Continental
Swissair	5%	Delta
Singapore Airlines	5%	Delta
Ansett Airlines	17%	America West
Japan Air Lines	20%	Hawaiian Airlines
KLM	49%	Northwest
British Air	15%*	United

* proposed; later withdrawn

The equity interests by Scandinavian Airline System [SAS] in Continental Airline Holdings was inspired by the American carriers' need for a substantial infusion of new capital. From SAS's perspective, the Texas Air alliance gave it new feed into its transatlantic routes; SAS moved its international hub from New York Kennedy Airport to Newark, where Texas Air's Continental and Eastern could provide domestic feed.[360] (However, SAS may have over-extended itself, and is now retrenching). Swissair's and Singapore Airlines' interest in Delta appears to have been inspired by different reasons — the desire of Delta to have a friendly partners poised to fend off LBOs.

But most are motivated by foreign airlines' interests in creating operating and market alliances. Thus, they invest "dumb equity", accepting sub-optimal returns because they anticipate synergistic revenue on the passenger feed U.S. airlines promise them, and the diminution of competition thereby created.

Not only are foreign airlines affiliating with U.S. carriers. Other international aviation alliances are emerging, including British Airway's acquisition of British Caledonian, and Air France's purchase of UTA. The following chart reveals the major ownership interests of foreign airlines:

360. *Repeating Mistakes*, J. COM., Aug. 30, 1989, at 8A.

CROSS OWNERSHIP AGREEMENTS BETWEEN FOREIGN AIRLINES[361]

PURCHASER	PERCENTAGE	OWNERSHIP TARGET
Air France	1.5%	Austrian Airlines
Air France	71%	UTA
Air France	37%	Air Inter
Air France	2%	Austrian Airlines
American	8%	Air New Zealand
ANA	0%	Austrian Airlines
Cathay Pacific	35%	Dragonair
Delta	3%	Singapore Airlines
Delta	5%	Swissair
Iberia	85%	AerolineasArgentinas
Japan Air Lines	8%	Air New Zealand
KLM	15%	Air UK
Qantas	20%	Air New Zealand
SAS	5%	Swissair
SAS	35%	Lan Chile
SAS	25%	Airlines of Britain
SAS	16%	CTA
Singapore	3%	Swissair
Swissair	10%	Austrian Airlines
Swissair	5%	SAS

Here's a college board exam question: if Delta owns 5% of Swissair, and Swissair owns 5% of SAS, and SAS owns 18.4% of Continental, how much of Continental does Delta control?

Almost all bilateral air transport agreements require that carriers designated thereunder be owned and controlled by citizens of the nation from which they originate. Hence, there is no concept of "flags of convenience" in aviation as there is in maritime law.

Foreign ownership restrictions have long been imposed in a number of infrastructure industries in the United States, including telecommunications, broadcasting,[362] electric power production,[363] nuclear power production,[364] inland and intercoastal shipping,[365] mining on federal

361. *See* authorities cited *supra* note 291.

362. Foreign owned or controlled corporations are prohibited from receiving licenses to operate as instruments for the transmission of communications. A corporation is defined as foreign-owned if any director or officer is an alien, or if more than one-fifth of its capital stock is owned by aliens, a foreign government, or a corporation organized under the laws of a foreign country. Additionally, a corporation is generally considered as foreign-controlled if it is directly or indirectly controlled by any other corporation, at least one-fourth of whose capital stock is owned by foreign interests. 47 U.S.C. § 310(b) (1988).

363. Hydroelectric power sites on navigable streams located within the United States may be developed only by U.S. citizens or domestically organized corporations. 16 U.S.C. § 797(e) (1988).

364. No licenses for the operation of atomic energy utilization or production facilities may be issued to aliens or to foreign-owned or foreign-controlled corporations. 42 U.S.C. § 2133 (1988).

lands,[366] and aviation. These requirements reflect the importance these infrastructure industries have in supporting national defense.

Essentially, eligibility to register an airline in the United States is limited to: (a) United States citizens; (b) partnerships in which all partners are United States citizens; or (c) U.S. corporations in which at least two-thirds of the board of directors are U.S. citizens and at least 75% of the voting stock is owned by U.S. citizens. Moreover, the right to enter into cabotage (trade or transport between two points within the United States) is limited to domestically registered aircraft.[367]

Section 408(a)(4) of the Federal Aviation Act made it unlawful "for any foreign air carrier or person controlling a foreign air carrier to acquire control in any manner whatsoever of any citizen of the United States substantially engaged in the business of aeronautics."[368] Historically, a presumption of control existed where ownership exceeded 10% of the airline.[369] Securities and Exchange Commission reporting requirements are triggered by the acquisition of 5%. In reality, ownership of substantially lesser percentages of widely held corporations can result in effective "control" (although, as we shall see, the current view of the DOT is that foreign control of U.S. airlines almost never exists). Moreover, it is unlikely that a foreign investor would be interested in investing substantial capital in an airline he could not effectively control.[370] But in the event a foreign citizen should be deemed by DOT to have "control" of a U.S. airline, it would no longer be deemed a U.S.-flag carrier, and hence prohibited under the cabotage restrictions (described above) from plying the domestic trade.

Another statutory provision provides that in order to qualify as a U.S. citizen (i.e., a U.S.-flag carrier), the airline must have as its ". . . president and two-thirds or more of the board of directors and other managing of-

365. The Jones Act of 1920 requires that any shipping of passengers or property between points in the United States or its territories must be accomplished in vessels constructed and registered in the United States and owned by U.S. citizens. A ship may not be registered in the United States unless the corporation's principal officers are U.S. citizens and 75% of the stock is owned by U.S. citizens. Any vessel that is at any time registered in a foreign country permanently loses these United States shipping rights. Moreover, any eligible vessel weighing more than 500 gross tons that is later rebuilt outside the United States also forfeits these privileges. However, vessels registered in foreign nations granting reciprocal privileges to U.S.-flag vessels may perform intercoastal transportation of empty items, such as cargo vans, barges, shipping tanks, and equipment utilized therewith. 46 U.S.C. § 883 (1988).

366. 30 U.S.C. § 22, 24, 71, 181, 352 (1988).

367. 49 U.S.C. § 1378, 1401, 1508 (1988).

368. 49 U.S.C. § 1378(a)(4) (1988). The authority of the Department of Transportation under this provision was terminated as of January 1, 1989. 49 U.S.C. § 1551(a)(7) (1988).

369. 49 U.S.C. § 1378(f) (1988).

370. Feldman, *What Are the Chances of Foreign Ownership of U.S. Airlines?*, AIR TRANSPORT WORLD, Nov. 1987.

ficers thereof . . . [U.S. citizens and] at least 75 per centum of the voting interest is owned or controlled by persons who are citizens of the United States . . . ."[371]

These are, then, separate requirements — that no foreign citizen or airline "control" a U.S.-flag carrier, and that no foreign citizens serve as president, hold more than two-thirds of the seats on the board of directors, or more than 25% of the voting stock of a U.S. airline.

DOT has also employed its fitness requirements under section 401(r) of the Act to monitor foreign control issues.[372] As to control generally, DOT said this:

> [F]oreign influence may be concentrated or diffuse. It need not be identified with any particular nationality. It need not be shown to have sinister intent. It need not be continually exercisable on a say-to-day basis. If persons other than U.S. citizens, individually or collectively, can significantly influence the affairs of [the U.S. carrier], it is not a U.S. citizen.[373]

The most important case addressing the issue of foreign control of a U.S. airline involved KLM's acquisition of a significant interest in the holding company of Northwest Airlines. In a transaction which increased Northwest's debt-to-equity ratio from 0.42/1 to 5.85/1, in August 1989, Wings Holdings, Inc., acquired control of Northwest with 81.5% debt and 18.5% equity.

Wings' debt was $3.1 billion, almost two-thirds of which was put up by Japanese banks. Equity was $705 million, of which Alfred Checchi, Gary Wilson and Frederic Malek put up only $40 million (for which they received about half the voting and nonvoting common stock), KLM (a Netherlands airline) put up $400 million (or 57% of the equity, for which KLM received 70% of Wings' nonvoting preferred stock, 31% of its nonvoting common stock, and 4.9% of its voting common stock, as well as a warrant allowing it to convert up to $50 million of its preferred stock into common stock, some of which could be voting), and Elders IXL (an Australian company) put up $80 million (or 11% of the equity, for which it received 10% of Wings' nonvoting preferred stock, 16% of its nonvoting common stock, and 15.4% of its voting stock).[374]

Both KLM and Elders had the right to name one representative to the 12-member Wings' Board of Directors. KLM had the right to name a 3-person committee to advise Wings on financial matters, and to enter into a

371. 49 U.S.C. § 1301(16) (1988).

372. 49 U.S.C. § 1372(r) (1988). Carriers undertaking significant changes in their operations must provide DOT with information relevant to their citizenship and fitness. 14 C.F.R. § 204.4 (1992).

373. In the matter of Intera Arctic Services, Inc., DOT Order 87-8-43 (1987), at 5.

374. In the matter of the Acquisition of Northwest Airlines by Wings Holdings, Inc., DOT Order 91-1-41 (1991), at 2.

variety of cooperative arrangements with Northwest and preclude such arrangements with other airlines.[375]

In 1989, Secretary of Transportation Samuel Skinner expressed concern over the Checchi group acquisition of Northwest Airlines, not only because the LBO would increase Northwest's debt fourfold, but also because the $400 million equity participation by KLM Royal Dutch Airlines would give it about 57% of total equity.[376] Secretary Skinner appeared to interpret section 101(16) of the Federal Aviation Act to limit foreign equity to 25%. As Skinner said,

> While KLM's voting share technically fell within the statute's numerical limits [which requires that the airline's President and two-thirds of its Board and other managing officers be U.S. citizens, and that not less than 75% of voting interest be owned and controlled by U.S. citizens], we concluded that KLM's ownership of 57 percent of NWA Inc.'s total equity, together with the existence of other links between the carriers and KLM's position as a competitor, could create the potential for the exercise of influence and control over the carrier's decisions. This would be inconsistent with the law.[377]

In its first order, issued September 29, 1989, the DOT concluded that unless KLM reduced its equity interest to 25%, KLM could be in a position to exert actual control over Wings.[378] DOT expressed concern about the size of KLM's equity interest, both in absolute and proportional terms, its ability to exert influence on Wings, and the fact that it was an actual competitor with Northwest in a number of markets.

DOT acknowledged that determining whether foreign "control" exists is a complex matter:

> Analysis in this area has always necessarily been on a case-by-case basis, as there are myriad potential avenues of control. The control standard is a *de facto* one — we seek to discover whether a foreign interest may be in a position to exercise actual control over the airline, *i.e.*, whether it will have a substantial ability to influence the carrier's activities.[379]

DOT observed that "it is clear from our precedent that a large share in a carrier's equity poses citizenship problems, even where the interest

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375. *Id.*

376. Statement of Samuel Skinner Before the Aviation Subcomm. of the House Comm. on Public Works and Transportation (Oct. 4, 1989), at 4. Had the management/pilot deal for United not fallen through, British Airways was prepared to supply $570 million, or 78% of the total $965 million equity. Valente & McGinley, *UAL Machinists Refuse to Back Buy-Out Plan*, WALL ST. J., Oct. 5, 1989, at A6.

377. Statement of Skinner, supra note 376, at 4-5. In September 1989, Skinner jawboned Checchi and Northwest into agreeing, inter alia, to limit KLM's voting stock to 25%, and to limit KLM's representation on Northwest's Board of Directors to "matters relevant to KLM's pecuniary interest, recusing himself or herself when the board is dealing with certain matters, such as bilateral negotiations and competitive issues." *Id.* at 6.

378. In the matter of the Acquisition of Northwest Airlines by Wings Holdings, Inc., DOT Order 89-9-51, at 3.

379. *Id.* at 4-5.

does not take the form of voting stock, particularly if there are other ties to the foreign entity."[380] DOT noted that the incentive for the foreign airline to exert control was much enhanced where it is also an actual or potential competitor. The interest of Elders in Wings appeared to be no more than a pecuniary interest, not rising to the level of concern about control.[381] However, KLM's large equity interest, its right to sit on Wings' Board and name a financial committee, and the working arrangements between the two airlines caused the DOT to conclude that KLM could be in a position to exert control over Northwest, thereby jeopardizing its status as a U.S. citizen. DOT and Northwest entered into a consent order whereby KLM's equity interest in Wings would be reduced to 25%, its power to establish a financial advisory committee would be revoked, and Northwest would fulfill certain reporting requirements.[382]

The disintegration of the economic position of a number of U.S. airlines in late 1990, precipitated by the War with Iraq, escalating fuel prices, fear of terrorism by the traveling public, and a global recession which diminished passenger demand, led the DOT to reverse its position on foreign ownership. The DOT was now willing to take another look at Wings and Northwest. It concluded that Messrs. Checchi, Wilson and Malek were firmly in control of Wings, holding two-thirds of its voting stock and having the power to appoint most of its directors.[383] The DOT announced that it was adopting a new policy:

> [W]e have reexamined our application of the control test in order to reflect more accurately today's complex, global corporate and financial environment, consistent with the requirement for U.S. citizen control. Specifically, we have reviewed the relationship between voting equity, on the one hand, and nonvoting equity and debt, on the other.[384]

The DOT concluded that foreign equity ownership of up to 49% would be allowed, although foreign voting equity would be limited, as the statute required, to 25%. Foreign debt would not be treated as a control issue.[385] The DOT also indicated that it would not ordinarily allow a foreigner to serve as Chairman of the Board.[386] It had earlier approved the placement of three representatives of SAS on the Continental Airline Holdings' board.[387] KLM could have three seats on the 15 member Wings' board.[388] DOT warned, "the naming of a disproportionate

380. *Id.* at 6.
381. *Id.* at 5.
382. *Id.* at 8.
383. DOT Order 91-1-41 (1991), at 8.
384. *Id.* at 9.
385. *Id.*
386. *Id.* at 11.
387. DOT Order 90-9-15 (1990), at 6-7.
388. DOT Order 91-1-41 (1991), at 11.

number of foreign director representatives to important committees, such as the executive committee, nominating committee, or finance committee, may be taken as an indication of control and would be cause for us to review the citizenship of the affected air carrier."[389]

The statute has not been amended since Secretary Skinner found that KLM's gargantuan ownership was inconsistent with the law. The U.S. Department of Transportation continues to hold jurisdiction under section 401 of the Federal Aviation Act to scrutinize the fitness of airlines (which includes safety and compliance fitness), and under section 101(16) to review foreign ownership. Under present law, foreign ownership is limited to 25% of the voting stock of U.S. airlines, and no foreign airline can ply the domestic trade.

DOT announced that it will allow foreign equity ownership of up to 50%. Secretary Skinner has also proposed that statutory limits on voting ownership be increased to 49%.[390] DOT has even proposed to put the exchange of cabotage rights (the opportunity for foreign airlines to serve domestic routes) on the table in negotiations with the government of Canada, despite the legislative prohibition.

The truth is, with ownership, code sharing and marketing alliances, a foreign airline can effectively control a U.S. carrier, reducing competition in the international market while creating domestic U.S. feed for its international operations. Foreign ownership is the back door to cabotage. With ownership, foreign airlines do not need cabotage rights.

V. CONCLUSION

One way of assessing deregulation is to ask what would have been different had the Civil Aeronautics Board [CAB] not been sunset. One might argue that with deregulation, we have replaced the five member CAB with the four or five top civil aeronautics executives [CAE].

1. Would prices have fallen? Adjusted for inflation, prices were falling steadily every decade preceding deregulation. As technological advances increased productivity, cost savings were passed through to consumers. Although prices fell dramatically in the 1977-79 period, adjusted for fuel costs and inflation they fell at a 30% slower rate in the decade following deregulation than in the decade preceding it.[391] Hubbing, the dominant megatrend on the deregulation landscape, caused a shift away from larger aircraft. Hubbing also increases fuel and labor costs. Hub-

389. *Id.*

390. McGinley, *Transport Aide Backs Raising Limit On Foreign Holdings in U.S. Airlines*, WALL ST. J., Feb. 20, 1991, at A8.

391. DEMPSEY, *supra* note 113, at 27-35.

bing likely would not have occurred under regulation. Productivity improvements would likely have driven prices downward.
2. Would the CAB have allowed the largest three airlines to dominate the three busiest airports in the nation? Never.
3. Would the CAB have given the largest airlines the lion's share of the scarce landing slots at the four slot constrained airports? No. Certainly, small airlines would have a significant presence under the CAB's tutelage.
4. Would the CAB have awarded the most important international routes to the three largest airlines? Absolutely not.
5. Would the CAB have allowed the corporate raiding of the 1980s to saddle the industry with enormous debt? The CAB would likely have scrutinized the leveraged buy-outs of Frank Lorenzo at Continental and Eastern, Carl Icahn at TWA and Alfred Checchi at Northwest carefully and concluded that they failed to satisfy the public interest standards of section 408 of the Federal Aviation Act and the fitness requirements of section 401.
6. Would the industry be in such dire financial condition had the CAB been in business? Profits were hardly robust under the CAB's tutelage, but they turned sharply south after deregulation. The CAB would likely have used a variety of regulatory mechanisms to restore profitability, including prohibiting corporate raids, authorizing lucrative market opportunities to weaker carriers, and prohibiting predatory pricing. The only thing the DOT has identified as a means of shoring up the financial condition of the disintegrating airlines is foreign ownership. Since most foreign airlines are governmentally owned or subsidized, this effectively means a government bail-out, with the novel twist that we are going to use the tax dollars of foreign citizens to rectify the mistakes of U.S. government policy, without ever having to admit that deregulation is a failure.

Another way to view the public interest in a market system is to defer to the system of private ownership by stockholders. These widely diversified companies are, after all, controlled by the public in the form of stockholders, are they not?

If stockholders controlled UAL, would it have paid its chief executive officer $18 million in a year when it was losing three times as much? Would it have turned down a bid for $240 a share (in April 1992, it was selling for almost half that)? If stockholders controlled Continental, would it have proposed to wipe out all the value of their stock in reorganization? No.

Tragically, Alfred Kahn was true to his promise. The eggs have been so scrambled that they can never be put together again. We can neither resurrect the proud airlines that have been lost, nor rectify the emotional and economic injury suffered by hundreds of thousands of loyal employees who have lost their jobs, and investors and creditors who have been

stiffed. But unless Congress acts quickly and meaningfully, it will forego its last opportunity to preserve competition.

This is not to suggest that the CAB should be resurrected in its 1938 clothes to fix what went wrong. That approach may have been appropriate then, but not now. Regulatory reform was a prudent dose of course correction that the CAB clearly needed. But instead of regulatory reform, by embracing deregulation, Congress threw the baby out with the bath water.

Unfortunately, the public policy debate has degenerated into two extremes — laissez faire deregulation, and New Deal reregulation. The appropriate solution probably lies between the two polarized extremes, or beyond them. Government oversight of competitors requires significantly less regulation than oversight of monopolists. Thus, the DOT must move expeditiously and forcefully to restore industry health, and thereby avoid further industry concentration.

Congress has several bills before it to deal with such problems as computer reservations systems, slot constrained airports, and such. The patient is flat on his back hemorrhaging unmercifully, and Congress is offering a couple of aspirin and a glass of water. The disease is deregulation, and the patient desperately needs to be moved to the operating room.

If Congress does nothing, we will likely see an airline industry more highly concentrated than it now is. Because airline managers are rational wealth maximizers, prices will likely rise and grow even more discriminatory.

Transportation, like many public utilities, is a necessity. Distortions in its service and the extraction of monopoly rents cannot long be tolerated. Air transport is too critical to the productivity of the economy and the well-being of our citizens to abandon it to private concentrations of market power. The public will not tolerate a stranglehold upon America's mobility by a handful of airline Chief Executive Officers sitting around a Monopoly Board. Eventually, Congress will be faced with the prospect of introducing public utility regulation to the few surviving firms, or failing that, nationalizing the industry. Regulated competition is preferable to regulated monopoly; regulated monopoly is preferable to nationalization; nationalization is preferable to unregulated monopoly.

Neither of the extremes of nationalization nor the contemporary environment of economic anarchy and Market Darwinism are desirable. Public policy in this essential infrastructure industry would best be enhanced by preserving the level of competition which now exists and imposing light-handed regulation upon it, while there is still competition to preserve. How might that be accomplished?

Any comprehensive regulatory/legislative effort to solve the problems in commercial aviation must have three primary objectives:

1. It must attempt to rectify the financial crisis in the airline industry;
2. It must promote consumer equity; and
3. It must allow new firms equitable entry opportunities.

Addressing the financial crisis in commercial aviation must be the highest priority of the new Administration's DOT. The contemporary financial losses threaten to ground much of the industry. We need to explore creative means to rebuild our nation's aviation system.

While some have suggested certificate revocation of Chapter 11 airlines on "fitness" grounds, it is an undesirable alternative because it would necessarily reduce the number of competitors. Thus, this alternative is undesirable. Any new government approach must be implemented in a way that do not injure established carriers in the process. Unnecessary regulatory burdens must also be eliminated.

Fitness standards might be imposed prospectively to prevent the enormous debt such as now burdens Northwest, TWA, and Continental, and if need be, LBOs can be prohibited. What we do about the debt/equity ratios at the Chapter 11 carriers or those near it, is unclear. New accounting standards could be adopted to give a clearer picture of debt, such as by requiring capitalization of leases and other liabilities, and piercing the corporate veils of parent companies.

The capital requirements of the U.S. airline industry are enormous. With today's deficit, a government bailout, a la Conrail and Lockheed, is probably not feasible. Neither probably are tax credits for new equipment purchases. However, we might explore using some slice of the Airport and Airway Trust Fund to provide federal loan guarantees to domestic airlines for new aircraft.

If our government dedicates itself firmly and forcefully to shoring up the financial health and financial prospects of the industry, the private capital markets will become available quite quickly, creating stronger airlines better positioned economically and efficiently to serve the public interest.

New capital from any source should be welcome, particularly to shore up failing U.S. airlines. But foreign control should be avoided, for reasons of national security (the loyalty of the CRAF fleet), maintaining competition in international markets, preserving the integrity of the bilateral negotiating process, and recognizing that the foreign regime of government ownership, subsidies and regulation (and indeed, recent privatization, which creates foreign airlines with clean balance sheets) creates an unlevel playing field. The KLM/Northwest relationship produces difficult precedent, however. But at the very least, we ought to stop negotiating unbalanced bilaterals.

The problem is not just debt, of course, it is also the endless hemorrhaging caused by pricing the product below cost. Lowering costs can only be achieved in a limited number of ways — cutting labor expenditures, abandoning hubs, and removing taxes and costly regulations, for example. Labor costs have declined as a percentage of operating expenses since 1978. Further reductions would take a restructuring of the Railway Labor Act, which is probably politically infeasible.

The industry is beginning to realize that hubs are high cost methods of distributing passengers in terms of aircraft and labor utilization and fuel consumption. Cargo doesn't seem to object to the inconvenience, but passengers detest it. Perhaps carriers seeking to serve nonstop routes not currently being served should be awarded limited-term exclusive nonstop route franchises as a means of stimulating nonstop service, thereby providing some collateral for lending. If price ceilings are imposed, the attractiveness of hubs diminishes, for they will no longer produce monopoly rents.

And as to taxes, they should be lowered, but the deficit realities may preclude that. Unnecessary and costly regulations, such as universal drug testing, ought to be trimmed.

But there may not be enough on the cost side that can be cut to restore profitability, so let's visit the price side. First, the bankruptcy laws could be reviewed to prevent Chapter 11 carriers from pricing below fully allocated costs, assuming no bankruptcy. Undue pricing discrimination could be circumscribed to eliminate corporate discounting. Small businesses create the lion's share of the nation's jobs, and they are seriously disadvantaged by the contemporary transportation pricing structure. The Clinton campaign committed itself to job creation, so this type of discrimination might be challenged on equity and economic grounds. Of course, pricing differentials ought to be allowed for discretionary traffic, so as to allow airlines the flexibility to tap the elasticities of demand to fill seats which otherwise might fly empty.

Beyond that, a tiered price structure, like that American Airlines tried to implement, or the European Commission has adopted might be appropriate.[392] Some have suggested resurrecting the old statutory just and reasonable and nondiscriminatory rate provisions of the Federal Aviation Act. Perhaps some of the regulatory reform pricing provisions of the Airline Deregulation Act or the new European rules might be appropriate.

Consumer equity requires some cleaning up of advertising, and perhaps requiring every change of plane to show a different flight number.

392. *See* Paul S. Dempsey, *European Aviation Regulation: Flying Through the Liberalization Labyrinth*, 15 B.C. INT'L & COMP. L. REV. 311 (1992).

Politically, it might not be feasible to eliminate frequent flyer programs, but they might be tightened a bit, or taxed.

Ultimately, any comprehensive statutory proposals have to address in some way the entry barriers of access to slots and gates, as well as computer reservations systems bias, but do so delicately, so that the established airlines aren't financially injured in the process.

Finally, I want to share with you a statement made by a prior President of the Air Transport Association before the Senate Commerce Committee:

> Since air transport was launched into meteoric growth, [hundreds of millions of dollars] of private capital has been devoted to it, but, of that sum, there remains today scarcely 50 percent. Since the beginning of air transport, a hundred scheduled lines have traversed the airways in a struggle to build this newest avenue of the sky. But today scarcely more than a score of those companies remain. The industry has been reduced to the very rock bottom of its financial resources . . . .
>
> There are only two ways whereby the necessary capital can be provided to this industry. One is the way toward which the governments of foreign lands increasingly tend — the way of mounting governmental subsidies, whereby public funds are poured without stint into air transport. The other way is the traditional American way, a way which invites the confidence of the investing public by providing a basic economic charter that promises the hope of stability and security, and orderly and intelligent growth under watchful governmental supervision.[393]

Sadly, these words are as true today as they were in 1938, when Col. Edgar Gorrell spoke them.

Let us examine what new legislation might contain to accomplish these objectives.

1. Indirect Subsidies. Recognizing the importance of transportation to commerce, communications and national defense, Congress in earlier periods of American history direct federal subsidies were given to bail out transportation firms such as Conrail, Chrysler, Lockheed, and Amtrak. But the contemporary realities of a $3 trillion federal debt preclude direct subsidies to ameliorate the contemporary crisis in the transportation industry.

Nonetheless, weaker carriers, new entrants, and carriers which can best enhance the competitive environment ought to be favored as the government distributes the tremendously valuable public resources in the form of postal subsidies, international routes and landing slots. However, these franchises ought not be allowed to be sold for profit, for they generally end up in the hands of the megacarriers when sold. They are public

393. Safety in the Air: Hearings on S. Res. 146 Before the Senate Comm. on Commerce, 75th Cong., 3d Sess., Rept. No. 185, pt. 2, at 2 (1938) (reference to statement of Col. Edgar Gorrell).

resources and should be used for the public good. They should be issued on a limited term basis, and awarded to whatever carrier fulfills public needs best at their expiration or upon their surrender.

2. Nonstop Route Certificates. Hubbing-and-spoking, the dominant megatrend on the deregulation landscape, is choking the air transport system, causing flight schedules to regress back to the DC-3 era, and burning excessive fuel. Southwest Airlines has proven that the pre-deregulation linear route system is more efficient from the perspective of aircraft, labor and fuel utilization. New nonstop service overflying hubs might be inaugurated if airlines could receive a protected franchise for a term of years. A franchise to serve any city-pair not now receiving nonstop service ought to be available to an airline promising to provide at least one round-trip a day. It would receive an exclusive franchise to serve the market for say, 3-5 years. If necessary, designated carriers would receive access to congested airport gates and slots, perhaps through use of federal eminent domain power, to condemn the necessary property at fair market value and sell it to the franchisee. Preference might be given to weak airlines, new entrants, and carriers best able to enhance competition. To protect consumers, average yields in the market could be no higher than industry average yields for similar stage lengths.

3. Pricing Discrimination; Ceilings and Floors. As a general rule, the government should stay out of the business of setting fares where sufficient competition exists to discipline airlines. Take some appropriate measure of competition at airports or in city-pair markets (e.g., some appropriate point on the Herfindahl-Hirshman Index), and let airlines price as they will.

But carriers should be prohibited from extracting monopoly or oligopoly rents in markets where they enjoy market power. They should also be stopped from driving smaller carriers out by predatory pricing and other predatory behavior. Average fares per mile in any noncompetitive market should not exceed, say 15-25% of industry average fares for similar stage lengths, unless the airline can show good cause why they should, usually in the form of extraordinary costs attributable to serving the market in question, or thin demand. As to predatory conduct, a smaller aggrieved airline should be able to object to a larger competitor's price or service war poised to drive it out.

Pricing discrimination is another significant problem. The discounts offered large corporations should probably be eliminated, for they distort pricing for small businesses. Since small businesses create 90% of America's jobs, they should not be disadvantaged with excessively high air fares which jeopardize their ability to get their sales forces out to market their products.

4. Airline agreements. Much could be done to alleviate congestion an

excessive capacity problems by allowing airlines to sit down and talk about solutions thereto. Cooperation between airlines can sometimes reduce industry costs while providing better service to the public. The government should, of course, monitor such discussions so as to protect consumers and other airlines from anticompetitive behavior. But antitrust immunity might be conferred for those arrangements which serve the public interest by better rationalizing the air transport system. This could help alleviate wasted capacity, ease airport congestion and delays, reduce fuel consumption, and improve the economic health of airlines.

5. Airline Mergers, Acquisitions and Antitrust. Anticompetitive mergers and undercapitalized acquisitions should be prohibited. Bias and discrimination must be eliminated from computer reservations systems, and charges for such services must be reasonable.

6. Consumer Protection. Something must be done about the myriad of abusive practices such "bait and switch" advertising, unrealistic scheduling, deliberate overbooking, nonrefundable tickets, misleading codesharing and change-of-gauge, and demand based flight cancellations. Congress should adopt a Code of Fair Competitive Practices defining what is not permitted and providing penalties for violations. Alternatively, Congress could eliminate federal preemption over such questions, letting the state Attorney Generals loose.

7. Airport regulation. Airports are public resources. Federal preemption of noise and other environmental issues might well enable the needed additional infrastructure development. Peak period pricing could flatten congestion. The government should also have eminent domain power to seize gates or slots at congested airports, for just compensation, and sell them to airlines best able to enhance competition and public service goals.

8. Financial Fitness. The DOT had ample jurisdiction to prevent the airlines from being loaded with onerous debt or stripped of assets in leveraged buy-outs. It chose to do nothing while our airline industry was crippled. Congress should pass legislation prohibiting any future LBO of an airline, force existing owners to wean them of debt over a period of time, and prohibit public assets (such as international routes, landing slots and gates) to be sold off to enhance the personal wealth of the corporate raiders. Fitness scrutiny might be exerted against any airline entering bankruptcy, or with an excessively aging or inadequately maintained fleet.

9. Foreign alliances. Foreign control tends to reduce competition in international markets and endangers national security. As Operation Desert Storm revealed, we need a loyal Civil Reserve Aviation Fleet to ferry U.S. soldiers and their supplies to distant battlefields during times of crisis. Stricter limitations should be placed on foreign equity ownership of U.S.

airlines. Also, again for national security reasons, cabotage restrictions should be retained.

10. U.S. Transportation Commission (or Court). During the past decade, the DOT has shown little enthusiasm for protecting the public interest or performing its statutory obligations in a responsible way. That is because the DOT is an executive branch agency, with policy dictated by the White House. Yet Article I section 8 of the U.S. Constitution vests in Congress the power to regulate interstate and foreign commerce. Hence, regulatory power over transportation should be extricated from the executive branch and vested in an independent agency.

Three alternatives come to mind. One is that of splitting off the Federal Aviation Administration from DOT, making it an independent agency and enhancing its jurisdiction over economic matters. Another is to strip the economic regulation functions from DOT and consolidate them with the jurisdiction now held by the Interstate Commerce Commission and the Federal Maritime Commission into a new "U.S. Transportation Commission" with broad jurisdiction over all modes of transport (after all, transportation is increasingly multimodal). The advantage here is that we would have eliminate a couple of existing agencies, and allow the survivor to coordinate intermodal transportation in a rational way. The third alternative would be to create a U.S. Transportation Court with appellate jurisdiction over the existing agencies, and hopefully, power to promulgate substantive rules.

Under either alternative, the agency (or court) should be headed by a collegial body of, say seven or nine commissioners (or judges) having long but nonrenewable terms of office and appointed in a manner similar to the governing members of the Federal Reserve Board, an agency which performs major economic policy functions without much of the political degeneration of most other federal agencies. Nonrenewability is important so that these individuals don't have to look to the White House for a job at the end of their terms. They should also be prohibited from taking a job with any industry they regulated after leaving the commission (or court). Autonomy, responsibility and fair mindedness is essential to good government.