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THE FAA "BUY-SELL" SLOT RULE: AIRLINE DEREGULATION AT THE CROSSROADS

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I. INTRODUCTION

"We don't ration steaks, or Lincoln Continentals or Picasso drawings. If you want them, you have to get them the old fashioned way — you have to *pay* for them." — Alfred Kahn.¹

AIR TRAFFIC HAS increased considerably since the Airline Deregulation Act of 1979.² Although problems of allocating airport resources existed before economic deregulation,³ the increase in traffic after deregulation has made the problem more acute.⁴ The Federal Aviation Administration (FAA), the Department of Transportation (DOT), and the Civil Aeronautics Board (CAB) before its demise,⁵ have responded in a variety of ways.

¹ Alfred Kahn (1984) (unpublished monograph).

² See STAFF REPORT, OFFICE OF ECONOMIC ANALYSIS, CIVIL AERONAUTICS BOARD, COMPETITION AND THE AIRLINES: AN EVALUATION OF DEREGULATION 33, Fig. 1.3 (1982) [hereinafter cited as CAB STAFF REPORT]. M. BRENNER, J. LEET & E. SCHOOT, AIRLINE DEREGULATION 18, Table 4 (1985) indicated that between 1978 and 1983, truck revenue-passenger miles increased by 7.1%. Locals increased 91.5%, intrastate increased 123.7%, Alaska/Hawaii by 47.1%, and other carriers increased by 20.3%. *Id.*

³ See generally Levine, *Landing Fees and the Airport Congestion Problem*, 12 J.L. & ECON. 79 (1969). As early as 1968, the FAA was compelled to limit takeoffs and landings at high-density airports. Federal Aviation Regulations (FAR) Amendment No. 93-13, effective April 27, 1969, 33 Fed. Reg. 17,896 (1968) (codified as amended at 14 C.F.R. §§ 93.121 -.133 (1985) [hereinafter cited as FAR Amendment 93-13]).

⁴ See generally STAFF REPORT, BUREAU OF ECONOMICS, FTC, AIRPORT ACCESS PROBLEMS: LESSONS LEARNED FROM SLOT REGULATION BY THE FAA (1983) [hereinafter referred to as FTC REPORT OF THE AIRPORT TASK FORCE]; *Report of the Airport Task Force, Hearing Before the Subcomm. on Investigations and Oversight of the Comm. on Public Works and Transportation*, 98th Cong., 1st Sess. 1 (1983) [hereinafter referred to as AIRPORT ACCESS REPORT]; *Government Policies on the Transfer of Operating Rights Granted By the Federal Government, Particularly Certificates of Public Convenience and Necessity and Airport Slots, Hearing Before the Subcomm. on Aviation of the Comm. on Public Works and Transportation*, 99th Cong., 1st Sess. 1 (1985) [hereinafter referred to as AVIATION HEARINGS] (particularly the testimony of M. Cohen at 7; R. Cohn, general counsel for People Express, at 71; and R. Aaronson, Director of Aviation, the Port Authority of New York and New Jersey, at 576).

⁵ The CAB ceased to exist as an independent entity in January, 1985, and its

They established quotas on the number of Instrument Flight Rule reservations per hour for specified high-density airports,⁶ allowed slot exchanges,⁷ permitted experimental slot sales⁸ (and then withdrew that permission),⁹ and provided antitrust exemptions for airport scheduling committees and agreements.¹⁰ DOT/FAA also has allocated slots administratively when scheduling committees have deadlocked.¹¹

remaining functions not related to economic regulation were transferred to the Department of Transportation (DOT). See 49 U.S.C. § 1551 (1982). For a comprehensive survey of the events leading up to the CAB's demise, see generally Dempsey, *The Rise and Fall of the Civil Aeronautics Board — Opening Wide the Floodgates of Entry*, 11 TRANSP. L.J. 91 (1979).

⁶ FAR Amendment 93-13, *supra* note 3; see 14 C.F.R. § 93.121-133 (1985).

⁷ 47 Fed. Reg. 25,508 (1982).

⁸ 47 Fed. Reg. 19,989 (1982).

⁹ 47 Fed. Reg. 25,508 (1982).

¹⁰ See, e.g., Application for Discussion Authority and Prior Approval of Carrier Agreements to Integrate Schedules, CAB Order No. 84-10-120 at 8 (Oct. 25, 1984); Petition of the Regional Carrier Scheduling Comm. for Approval of and Antitrust Immunity for an Agreement to Establish a Regional Carrier Scheduling Comm. under §§ 412 and 414 of the Federal Aviation Act, CAB Order No. 84-9-10 at 2 (Sept. 7, 1984); Petition of Regional Carrier Scheduling Comm., CAB Order No. 84-8-24 at 1 (Aug. 6, 1984); Petition of Regional Air Carriers, CAB Order No. 84-7-41 at 3 (July 13, 1984); Petition of Various Commuter Air Carriers, CAB Order No. 83-3-150 at 2 (Mar. 29, 1983); Application of Air Transp. Ass'n of Am., CAB Order No. 82-3-143 at 1 (Mar. 25, 1982); Requests of Air Florida, Inc. and the Washington Nat'l Commuter Airlines Ass'n, CAB Order No. 82-1-50 at 2 (Jan. 12, 1982); Petition of Dulles Policy Task Force, CAB Order No. 81-12-49 at 3 (Dec. 9, 1981); Request of the Air Transp. Ass'n of Am., CAB Order No. 81-10-162 at 3 (Oct. 27, 1981); Application of the Airline Scheduling Comm., CAB Order No. 80-9-148 at 9 (Sept. 24, 1980); Order Approving Agreement, CAB Order No. 69-2-52 at 2 (Feb. 12, 1969).

¹¹ The broad powers of the FAA to administratively allocate slots are set forth in the Federal Aviation Act, 49 U.S.C. app. § 1348(a) (1982):

The Secretary of Transportation is authorized and directed to develop plans for and formulate policy with respect to the use of the navigable airspace; and assign by rule, regulation, or order the use of the navigable airspace under such terms, conditions, and limitations as he may deem necessary in order to insure the safety of aircraft and the efficient utilization of such airspace. He may modify or revoke such assignment when required in the public interest.

Additional authorization is set forth in 49 U.S.C. app. § 1348(c):

The Secretary of Transportation is further authorized and directed to prescribe air traffic rules and regulations governing the flight of aircraft, for the navigation, protection, and identification of aircraft, for the protection of persons and property on the ground, and for the efficient utilization of the navigable airspace, including rules as

Effective April 1, 1986, an FAA final rule¹² (the "Buy-Sell" Rule) permits airline carriers and commuter operators to sell slots for any consideration at four of the Nation's high-density airports. Specifically, this new Buy-Sell Rule provides separate slot pools for air carriers, commuters, and other operators.¹³ Air carriers holding slots on December 16, 1985, are "grandfathered,"¹⁴ and may buy, sell, trade, or lease those slots beginning April 1, 1986.¹⁵ International slots are treated specially and their transfer is restricted.¹⁶ Slots not used at least 65% of the time must be returned to the FAA and, along with other newly available slots, distributed by lottery.¹⁷ General

to safe altitudes of flight and rules for the prevention of collision between aircraft and land or water vehicles, and between aircraft and airborne objects.

¹² FAR Amendment 93-49, 50 Fed. Reg. 52,180 (1985) (to be codified at 14 C.F.R. pt. 93) [hereinafter cited as FAR Amendment 93-49]; see also FAA Notice 84-7, 49 Fed. Reg. 23,806 (1984); FAA Notice 84-6, 49 Fed. Reg. 23,788 (1984); FAA Notice 80-16, 45 Fed. Reg. 71,236 (1980). Proposals to further modify FAA slot allocation procedures currently are pending in Congress. See H.R. 4824, 99th Cong., 2d Sess. (1986); H.R. 5398, 99th Cong., 2d Sess. (1986).

¹³ FAR Amendment 93-49, *supra* note 12.

¹⁴ 50 Fed. Reg. 52,180, 52,184 (1985):

With respect to the effect of "grandfathering" on new entrants, several other provisions of the rule mitigate the initial effects and will act to eliminate these effects over time. First, the adoption of the buy-sell rule itself permits new entrants to acquire slots on the same basis as incumbents seeking additional slots. This would allow new entrants (some of which have waited for some time) to obtain immediate access at a high density airport. Second, the lottery mechanism adopted for the allocation of new, returned, or otherwise unallocated slots provides a set-aside of 15 percent of the available slots for new entrants.

¹⁵ *Id.* at 52,182.

¹⁶ *Id.* at 52,187:

The Department of State [DOS] commented that bilateral agreements would probably not be violated if foreign carriers were given a fair and equal opportunity to compete with domestic carriers for available slots. DOS was concerned, however, that the larger scale of activity of domestic carriers at the high density airports might give them at least an initial unfair advantage. DOS recommended that the buy/sell approach be confined at first to domestic operations to gain experience and to make any needed adjustments before adapting the rule to include international operations.

¹⁷ *Id.* at 52,193:

Initially, a random lottery would be held to determine the order in which carriers will select slots. Separate lotteries will be held on an

Aviation slots are not affected.¹⁸ Finally, slots may be recalled by the FAA for "operational reasons" and are not considered "proprietary rights," despite the permission to buy and sell.¹⁹

Although a wide spectrum of interests supported the Buy-Sell Rule at the FAA's public hearings, opponents voiced four basic objections. These parties argued that the Rule would (1) give an undeserved "windfall" to incumbents²⁰; (2) increase air fares²¹; (3) cause slots used for service to small communities to be outbid by carriers seeking the slots for long distance use and more lucrative routes²²; and (4) create anticompetitive incentives for large carriers to outbid smaller carriers for slots.²³

Armed with an FTC Economic Staff Report²⁴ and an economic analysis prepared by the Department of Justice (DOJ),²⁵ the FAA responded in summary as follows: (1) The economic scarcity value of the slots exists regardless

airport-by-airport basis for commuter operators and for air carriers. Unlike the lotteries for slot withdrawal purposes (which will be conducted only once for air carrier and commuter operator slots for each high density airport), lotteries for allocation purposes will be conducted whenever the agency determines that a sufficient number of slots are available for allocation.

¹⁸ *Id.* at 52,182.

¹⁹ *Id.* The Rule also makes it clear that the FAA in no way intends that "buy-sell" be construed to allow airport proprietors to sell or restrict slots:

A large group of commenters, including the Joint Commenters, Delta, People Express and Southern Jersey Airways were concerned that airport proprietors might misinterpret a buy-sell rule as granting them authority to sell slots on their own. The Massachusetts Port Authority and the Port Authority of New York and New Jersey asserted that proprietors should be able to regulate local resources through slot restrictions. The Department's position in this manner remains that the FAA retains sole jurisdiction over the Nation's airspace, and that nothing in this rule should be construed to authorize a sale of slots by any airport authority.

Id. at 52,189.

²⁰ *Id.* at 52,184.

²¹ *Id.*

²² *Id.*

²³ *Id.*

²⁴ CAB STAFF REPORT, *supra* note 2.

²⁵ Comments of the United States Department of Justice, Before the FAA/DOT, Docket No. 24,110 (Aug. 6, 1984) [hereinafter cited as DOJ Comments].

of Buy-Sell and, therefore, any "windfall" was created at the time the slots were originally awarded and not by Buy-Sell.²⁶ (2) Airfares would not increase since, as economic studies have shown,²⁷ existing fares already reflect the scarcity value of the slots. In fact, airfares would decrease due to more efficient slot use and a substantial reduction in delays now costing carriers and their customers millions of dollars per day.²⁸ (3) Service to small communities is protected by the Essential Air Service Program²⁹

²⁶ FAR Amendment 93-49, *supra* note 12. As the FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 4, explains:

[T]he prices which would be paid for slots if a market existed would only be a reflection of the value of the existing scarcity of slots. That scarcity is not created by the slot market, it is created by the FAA's restriction on the number of landings permitted at an airport, at least during some parts of the day."

Id. at 32.

²⁷ FAR Amendment 93-49, *supra* note 12, 50 Fed. Reg. at 52,184:

As an example, FTC cites from an FTC staff report which found that in the first quarter of 1981, fares in slot-constrained markets were two to five percent higher than in other markets. FTC concluded that even if carriers were to acquire those slots at their market value (rather than for free, as under the existing rule), the average fare level would not rise. If a carrier's fare in a slot-constrained market did rise, it would indicate that the carrier had not been charging a profit-maximizing fare prior to buy-sell, which is unlikely. FTC further noted that the above conclusion applied to the average of all fares, and that there were circumstances which could result in the increase in fares in some markets and the decrease of fares in others.

²⁸ *Id.* at 52,185:

American Airlines commented that fares are not always directly related to costs. American also noted that fares might actually be lowered as a result of buy-sell, because the market in slots would increase economic efficiency and allow a more productive use of slots. Other comments pointed out that since the expenditures for slots would only be a small part of overall costs, those expenditures would not have a significant effect on ticket prices.

²⁹ *Id.* at 52,186:

The Joint Commenters stated that the fear is unfounded that a buy/sell rule would result in shifting of service to small communities from the high density airports, or that slots would be used only with large aircraft. They cite numerous examples of carriers serving small communities and suggest that that will continue. In fact, they suggest that "without buy/sell some small and medium community services might be adversely affected." . . . American cites the recent expansion of service to smaller communities as proof that new ser-

and the Rule's reservation of slots for commuter carriers. The hub-spoke system requires short-haul routes from the hub, and slots for such purposes will be highly valued and therefore purchased at competitive prices. Slot sales also permit small communities to purchase or lease slots which otherwise might be unobtainable.³⁰ (4) Smaller carriers will not necessarily be outbid by larger carriers, since slot sales can be financed. Lenders will be more likely and more willing to lend money for a slot to a carrier making profitable use of a slot. Thus, if anything, Buy-Sell tends to favor smaller, low-cost airlines over some larger carriers.³¹ (Several new entrants under an experimental slot sale program in 1982 obtained twenty-six slots that they had been seeking unsuccessfully prior to that time.)³² The "lose it or use it" provision of the Rule, combined

vice will be directed towards small communities to "tap" new markets and feed the established long-haul routes.

....

Protection and development of service to smaller communities is also achieved by the provision for separate treatment of slots used for service to certain communities under the Essential Air Service (EAS) Program.

³⁰ *Id.*: "DOJ commented that smaller communities may act on their own to preserve air service by entering into contractual agreements with carriers holding slots or by purchasing slots and leasing them to carriers. This rule would allow such arrangements."

³¹ *Id.* at 52,185:

The FTC observed that the motivation to purchase in a slot market will be the expectation of providing relatively high-value flights and not simply the availability of cash on hand. If a smaller carrier can obtain higher profitability from an additional operation than can a larger carrier, the smaller carrier should be able to offer a higher purchase price and obtain the slot, even if financing is required. The size of a carrier is not necessarily related to the ability to finance purchases. FTC notes that smaller carriers such as People Express have been able to finance large equipment purchases and should have no more trouble financing slot purchases. Financing should be facilitated by the fact that slots are non-depreciating and readily transferable.

³² *Id.*:

CEA cites the examples of new entrants being able to gain access during the limited buy-sell experiment conducted with interim operations plan slots in 1982. They cite the example in which one carrier acquired 26 slots at that time. The price of the slots did not constitute a barrier to entry or to subsequent profitable operation.

with antitrust enforcement, would prevent anticompetitive behavior in buying slots to keep out a competitor.

In sum, the FAA maintained that under Buy-Sell, benefits would accrue "from the ability to liquidate a slot at a price higher than the value to the using carrier,"³³ or from the opportunity "to acquire a slot at a price which will permit a return on investment higher than the next preferable investment alternative,"³⁴ thereby increasing air carrier profit by "\$100,000 to \$130,000 per day."³⁵ The FAA further opined that new entrants would benefit from being able to obtain access,³⁶ that the government would benefit through relief from responsibility for monitoring and scheduling benefits,³⁷ and that society would benefit from improved efficiency in air carrier operations.³⁸

This article analyzes the economic and legal consequences of the FAA Buy-Sell Rule. As a background to this analysis, Part II briefly reviews the history and purposes of airline deregulation. Part III discusses airport access restrictions as a threat to free entry and, consequently, to airline deregulation. Parts IV and V review the economic and legal status of existing airport resources so that slot allocation may be viewed in the broader context of airport resources. (It will be shown, for example, that the Buy-Sell Rule fails to address entry at the most critical point of bottleneck, namely terminal space and gates.) Part VI surveys existing and proposed

³³ *Id.* at 52,194.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *See supra* note 32.

³⁷ *Id.* at 52,184:

The Department believes that the rule minimizes the need for government intervention in the continuing allocation and distribution of slots. Because carrier agreement on schedules, as the scheduling committees now operate, is not required, there will no longer be deadlocks in the allocation process.

³⁸ *Id.* at 52,185:

An unrestricted market in slots will permit a new entrant to obtain marginally profitable slots from one carrier at a price which will allow the new entrant to compete in a market in which another carrier is maintaining a price above average cost.

means of airport resource allocation so that alternative methods may be compared to Buy-Sell. Part VII reviews possible antitrust enforcement under Buy-Sell. Finally, Part VIII concludes that, while the benefits of Buy-Sell outweigh the disadvantages of existing methods, the threat of anticompetitive behavior under Buy-Sell is substantial and cannot be cured solely by antitrust enforcement. This article, therefore, proposes a modification to Buy-Sell that will reduce substantially the threat of anticompetitive behavior under Buy-Sell. This modification includes the integration of variable landing fees and a supplemental efficiency-bidding system in lieu of a lottery for recaptured slots.

II. AIRLINE ECONOMIC DEREGULATION (1978-1985)

The FAA Buy-Sell Rule must be considered in the broader context of the policies and purpose of the Airline Deregulation Act. The benefits of airline economic deregulation over the past seven years have been widely recognized.³⁹ It has been suggested that the deregulatory experience has fully vindicated President John F. Kennedy's call, in his 1962 Transportation Message, for "greater reliance on the forces of competition and less reliance on the restraints of regulation."⁴⁰

Airline deregulation was a victory for the economic theoreticians.⁴¹ Critics resisted deregulation on the theory that it would bring economic disaster to the industry,⁴²

³⁹ See, e.g., Hardaway, *Transportation Deregulation (1976-1984): Turning the Tide*, 10 TRANSP. L.J. 101, 104-05 (1985).

⁴⁰ Quoted in A. FRIEDLAENDER, *THE DILEMMA OF FREIGHT TRANSPORTATION REGULATION* at vii (1969).

⁴¹ See generally Anderson & Kraus, *Quality of Service and the Demand for Air Travel*, 63 REV. ECON. & STATISTICS 533 (1980); Jordan, *Producer Protection, Prior Market Structure and the Effects of Government Regulation*, 15 J.L. & ECON. 151 (1972); Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211 (1976); Schmatensee, *Comparative Static Properties of Regulated Airline Oligopolitics*, 2 BELL J. ECON. & MGMT. SCI. 565 (1971); Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971); Stigler & Friedland, *What Can Regulators Regulate? The Case of Electricity*, 5 J.L. & ECON. 1 (1962).

⁴² See Dempsey, *Transportation Deregulation - On a Collision Course?*, 13 TRANSP. L.J.

decrease service to small communities,⁴³ result in industry concentration,⁴⁴ and, eventually, oligopolization.⁴⁵ Deregulation in large measure has proved the inaccuracy of these predictions, as well as the invalidity of the public interest rationale for regulation.⁴⁶ Deregulation thus has vindicated economists such as George Stigler, who postulated that "every industry or occupation that has enough political power to utilize the state will seek to control entry."⁴⁷ It has been noted, for example, that between 1960 and 1975, "the scholarly view of the regulatory process changed from one of control of private behavior for the benefit of the public to one of use of governmental powers for private or sectional gain."⁴⁸

Prior to airline deregulation in 1978, the airline industry proved the truth of Stigler's hypothesis. In the years

329, 334-44 (1984), and authorities cited therein; see also Davis, *The Great Airline Disaster*, Denver Post, Feb. 7, 1982, at 1D, col. 1.

⁴³ See generally, Comment, *Section 419 of the Airline Deregulation Act: What Has Been the Effect on Air Service to Small Communities?*, 47 J. AIR L. & COM. 151 (1981).

⁴⁴ See Gibney, *Continuing Airline Losses Predicted*, Denver Post, June 21, 1982, at 3C, col. 1. Gibney quotes Braniff's Chief Executive Officer:

I think within five to seven years you will have no more than five [out of a current eleven] trunk airlines. Then you will have a whole bunch of Southwest Airlines-type carriers that start out from scratch and work to keep costs in line. As decreed by the law of the jungle, only the strong will survive.

Id.

⁴⁵ Dempsey, *supra* note 42, at 345. Dempsey cites Rowen, *Airlines Competing to the Death*, Wash. Post, Nov. 11, 1982, at A27, col. 2: "[T]he airline industry under deregulation is on a course where competition is being wrung out by the creation of an oligopoly of a few remaining large airlines"

⁴⁶ Several commentators reveal that regulations primarily tend to benefit the industry regulated rather than the public. See, e.g., A. DOWNS, *AN ECONOMIC THEORY OF DEMOCRACY* (1957); R. NOLL, *GOVERNMENT ADMINISTRATIVE BEHAVIOR AND PRIVATE SECTOR RESPONSE: A MULTIDISCIPLINARY SURVEY* 12 (1976); Migue, *Controls Versus Subsidies in the Economic Theory of Regulation*, 20 J.L. & ECON. 213, 215-16 (1977).

⁴⁷ Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 6 (1971). Stigler considers two alternative views of regulation: (1) regulation for the benefit of the public; and (2) regulation by vested interest groups through coercive use of governmental power. The interest groups may employ political machinery beneficial to that industry, but harmful to the public at large. See *id.*

⁴⁸ Levine, *Revisionism Revised? Airline Deregulation and the Public Interest*, 14 L. & CONTEMP. PROBS. 179, 180 (1981).

following its creation in 1938,⁴⁹ the CAB, through its power to grant certificates of "public convenience or necessity,"⁵⁰ rigidly controlled entry.⁵¹ During this period of heavy-handed regulation, not a single major carrier was permitted into the industry.⁵² The only single significant exception took the form of post-World War II entries by local service carriers, who were granted certificates to replace trunks in providing subsidized service to small communities.⁵³

While several factors, such as the general inflation rate, particular inflation rates (fuel, for example⁵⁴) recessionary pressures, and technological advances, must be considered in an analysis of airline industry pricing, most studies examining all these factors have concluded that regulation created artificially inflated fares.⁵⁵ The 1975 Kennedy hearings revealed regulated fares ranging from 40% to 100% too high, costing consumers \$3.5 billion in excess fares.⁵⁶ These statistics reinforced an earlier study suggesting that coach fares were 45% to 84% higher than unregulated fares would be.⁵⁷

Under regulation, fares were based on the average costs

⁴⁹ See Civil Aeronautics Act, ch. 601, 52 Stat. 973 (1938).

⁵⁰ *Id.* at 980.

⁵¹ CAB STAFF REPORT, *supra* note 2, at 10. This test put the burden of proof on applicants to show new entry was in the public interest and would not harm an incumbent airline. Since a new entrant had no proven track record to distinguish its merits, it suffered a significant disadvantage in pressing its case.

⁵² As Professor Dempsey noted: "Between 1950 and 1974, the CAB received 79 applications from firms seeking to obtain operating authority to provide scheduled domestic service. None was granted." Dempsey, *The Rise and Fall of the Civil Aeronautics Board—Opening Wide the Floodgates of Entry*, 16 TRANSP. L.J. 91, 115 (1979) (emphasis added).

⁵³ CAB STAFF REPORT, *supra* note 2, at 10.

⁵⁴ During the first four months of 1979, jet fuel costs increased by 86%. J. MEYER, C. OSTER, I. MORGAN, B. BEARMAN & D. STRASSMAN, AIRLINE DEREGULATION: THE EARLY EXPERIENCE 163 (1981) [hereinafter cited as HARVARD PROJECT].

⁵⁵ *Id.* at 25-27.

⁵⁶ *Oversight of the CAB Practices and Procedure: Hearings Before the Subcomm. on Administrative Practice and Procedure of the Senate Comm. on the Judiciary*, 94th Cong., 1st Sess. 454 (1975).

⁵⁷ Keeler, *Airline Regulation and Market Performance*, 3 BELL J. ECON. & MGMT SCI. 399, 421 (1972).

of the industry.⁵⁸ The CAB focused on achieving a desired rate of return for the industry, without regard for the relationship between fares and costs in particular markets.⁵⁹ This myopic policy produced many economic ill effects similar to those that would result in a monopolized industry.⁶⁰ The disparity between costs and fares forced carriers in competitive markets to compete by offering frills like "polynesian pubs" or the most free liquor.⁶¹ Inefficient carriers were rewarded with new routes to help keep them afloat while efficient carriers were forced to assume money-losing routes to serve the "public interest."⁶²

With such a perversion of market incentives, airlines predictably did their best to discard such routes. As a result of this policy of cross-subsidization, 173 communities lost their air service in the eighteen years before deregulation,⁶³ devastating those communities and making a mockery of the "social benefit" rationale of regulation.

Deregulation generated dramatic effects. Despite fuel price increases of 105% between March 1979 and March 1980,⁶⁴ fares decreased in real terms on an overall basis during that period.⁶⁵ While some communities gained service, and others lost it after deregulation, an exhaustive independent study concluded that "as a group, small communities (both small hubs and nonhubs) were receiving more scheduled airline service after deregulation than

⁵⁸ See M. LAZARUS, AIRLINE PRICING, DEREGULATION AND UNITED'S FARE POLICIES (1983).

⁵⁹ CAB STAFF REPORT, *supra* note 2, at 68. Even the introduction of discount fares allowed only moderate flexibility for deviation from regulated fares. *Id.* at 69.

⁶⁰ See generally P. SAMUELSON, ECONOMICS 459-483 (8th ed. 1970).

⁶¹ S. BREYER, REGULATION AND ITS REFORM 200 (1982).

⁶² CAB STAFF REPORT, *supra* note 2, at 10.

⁶³ A director of the Aviation Action Project founded by Ralph Nader observed: "Between 1960 and 1977, the CAB allowed certificated airlines to abandon 179 communities across America — hardly a model of good, public-utility style regulation." Wall St. J., Oct. 25, 1983, at 27, col. 12.

⁶⁴ HARVARD PROJECT, *supra* note 54, at 163.

⁶⁵ *Id.* at 71. The Harvard Faculty Project reported that real average fares decreased by 17% during the first years of deregulation. *Id.*

before."⁶⁶ In large part, this increase in service resulted from more efficient use of more appropriately sized aircraft on short hauls.⁶⁷ Deregulation's liberalized entry policy enabled fifteen newly formed jet-service airlines to enter the industry by August 1983, more than replacing the older, less efficient airlines that did not survive deregulation.⁶⁸ The market share of the six biggest airlines dropped from 70% to 62% during the period 1980-85.⁶⁹

The airlines, who never earned the allowable rate of return in the decade before deregulation, increased their profits by 50% in the very first year of deregulation.⁷⁰ While the subsequent recession hit the airline industry hard, by early 1984 the Airline Transport Association (ATA) was predicting a one-half billion-dollar industry profit for 1983.⁷¹ In addition, airline employment has increased during deregulation, even during the recession years.⁷²

Safety also has increased during deregulation, declining from .10 fatal crashes per 100,000 takeoffs in 1978 to .08 in 1982.⁷³ More importantly, performance "indicators" (accidents, injuries, FAA violations) have improved by 30% during the period.⁷⁴ In sum, deregulation has

⁶⁶ *Id.* at 156.

⁶⁷ See FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 4, at 26. The use of smaller aircraft by commuters also substantially reduced community subsidy levels. See HARVARD PROJECT, *supra* note 54, at 156-57.

⁶⁸ STAFF OF THE CIVIL AERONAUTICS BOARD, CIVIL AERONAUTICS BOARD DRAFT REPORT 12 (1984) [hereinafter cited as CAB DRAFT REPORT].

⁶⁹ Interview with Bill Horn, American Transport Association (July 1, 1986).

⁷⁰ *Id.* at 19-24.

⁷¹ USA Today, Jan. 9, 1984, at B1, col. 4. Despite mixed financial results in 1984, see Shrifin, *Smaller U.S. Air Carriers Mark Mixed Financial Results in 1984*, AV. WEEK & SPACE TECH., Apr. 22, 1985, at 39-41, optimism continued for 1985. Even with one-hundred million dollar strike-related losses by United Airlines in the second quarter of 1985, George W. James, president of Airlines Economics, Inc., predicted over one billion dollars in operating earnings for the year. Shrifin, *United Strike, Cost Containment Spur Second-Quarter Profit Increases*, AV. WEEK & SPACE TECH., Aug. 12, 1985, at 36.

⁷² Wall St. J., Oct. 18, 1983, at 35, col. 1.

⁷³ *Id.* Airlines have found that maintaining safety standards above those required by the FAA actually can cut maintenance costs. *Id.*

⁷⁴ *Id.* The 1985 crashes of Air India, Japan Airline and the British Airways charter aircraft obviously were not tied to deregulation in this country. Testimony

served the needs of consumers, the airline industry, and its employees.

III. AIRPORT ACCESS LIMITATION AS A THREAT TO AIRLINE DEREGULATION

The foregoing summary of airline deregulation benefits provides a necessary preface to discussion of one of three significant threats to airline deregulation: the denial of airport resources to new entrants. (The second and third threats, not discussed here, consist of insufficiently controlled mergers⁷⁵ and discriminatory use of airline reservation computer systems.⁷⁶) The Buy-Sell Rule primarily seeks to deal with this threat to access.

The benefits of airline deregulation have flowed principally from two factors: (1) free entry, and (2) freedom to compete by price and route. The value of the second factor, however, depends upon the first. The lack of free entry reduces the incentive to compete by price. While a reduced incentive to compete by price would be a lesser concern in the heyday of regulation, survival now depends upon providing the best service at the lowest cost to the

concerning the Delta Airlines crash at Dallas/Ft. Worth on August 2, 1985, indicates that windshear probably caused that accident. North, *Safety Board Hearings Relate Events Leading to Delta L-1011 Crash*, AV. WEEK & SPACE TECH., Nov. 4, 1985, at 32-33.

⁷⁵ See, e.g., Brodley, *Antitrust Policy Under Deregulation Airline Mergers and the Theory of Contestable Market*, 61 B.U.L. REV. 823 (1981); Carlton, Landes & Posner, *Benefits and Cost of Airline Mergers: A Case Study*, 11 BELL J. ECON. 65 (1980); Cohen, *The Antitrust Implications of Airline Deregulation*, 28 ANTITRUST BULL. 131 (1983); Eads, *Airline Competitive Conduct in a Less Regulated Environment: Implications for Antitrust*, 28 ANTITRUST BULL. 159 (1983); Fulton, *Texas International's Acquisition of Continental Airlines: A Case Study of Airline Acquisition in the Age of C.A.B. Deregulation*, 14 LAW. & POL. INT. BUS. 245 (1982); Keyes, *A Preliminary Appraisal of Merger Control Under the Airline Deregulation Act of 1978*, 46 J. AIR L. & COM. 71 (1980); *Mega-Carriers Envisioned*, The Denver Post, July 9, 1985, at 2C, col. 1; North, *Mergers, Bankruptcies Shrink Ranks of Regional Carriers*, AV. WEEK & SPACE TECH., Oct. 22, 1984, at 32; See also Hardaway, *Airline Mergers Threaten Public*, The Denver Post, Mar. 28, 1986, at 4B, col. 4.

⁷⁶ *United Apollo Ticketing System Shapes Tactics in Air Fare Battle*, The Denver Post, Feb. 18, 1986, at 2C, col. 1; Shrifin, *Justice Will Weigh Suit Challenging Airlines Computer Reservations*, AV. WEEK & SPACE TECH., Mar. 25, 1985, at 105; *CAB Sunset Ends Antitrust Immunity for Ticket Agents, Airlines*, AV. WEEK. & SPACE TECH., Nov. 12, 1984, at 50.

consumer.⁷⁷

What economic deregulation accomplished in the skies can be undone by direct or indirect entry control at the nation's airports. In economic terms, it makes no difference whether new entrants suffer exclusion by formal economic regulation (as was done by the CAB in the years 1938-1978), or by indirect means under the patchwork umbrella of "noise" restrictions, collusive "voluntary" agreements of scheduling committees, or administrative fiat. Entry control by any artificial means ultimately diminishes market forces and the benefits to be derived therefrom.

Free entry is necessary to prevent predatory pricing. Predatory pricing occurs when a large competitor attempts to use its economic power to lower prices to a level which it can absorb, but which bankrupts competitors.⁷⁸ After the bankrupts leave the industry, the large competitor can raise its fares without fear of challenge. Predatory pricing thus involves absorption of short-term losses in the hopes of reaping future excess profits. Predatory pricing becomes irrational, however, in a free-entry market, since a competitor easily can reappear later to prevent the reaping of oligopoly profits. As one scholar notes, predatory pricing can work only where the predatory firm enjoys insurance of its own ability to absorb ruinous losses, and protection by substantial barriers to re-entry by competitors.⁷⁹

But if the importance of free entry to the continued services of deregulation is widely recognized, the means of achieving it at the airport level is not. The acute nature of this problem stems from the fact that the experience of economic deregulation provides few answers, since the determining factors are different. Economic deregulation has been successful in large part because it allowed so

⁷⁷ See CAB DRAFT REPORT, *supra* note 68, at 27.

⁷⁸ See Areeda & Turner, *Predatory Pricing and Related Practices Under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697, 697-700 (1975).

⁷⁹ S. BREYER, *supra* note 61, at 32.

many new entrants into the industry.⁸⁰ Free entry has changed the shape of the industry to fit more closely the economist's definition of a competitive industry: an industry where a sufficiently large number of individual sellers exist to ensure that no one seller controls a percentage of the total market large enough to allow manipulation of the price of its product by restricting or expanding its own production.⁸¹ Traditional market mechanisms such as supply and demand work well when an industry approaches this market pattern, but tend to have misallocative characteristics when it does not.⁸² Thus, while many of the benefits economic deregulation spawned were achieved easily by simply eliminating the legal and administrative barriers to entry into the industry, current access restrictions to airports continue to foster many of the same economic ill effects the original administrative entry barriers caused. Access restrictions reduce the number of competitors, confronting incumbent carriers with a more steeply declining demand curve; *i.e.*, a market where the incumbent controls a large enough percentage of the market to affect fares by varying its own output.⁸³ In a market where an incumbent firm faces such a nonhorizontal demand curve, profit maximization occurs not at the most efficient social pricing level (*i.e.*, where price equals marginal cost), but rather at the point where marginal revenue equals marginal cost.⁸⁴ Because this re-

⁸⁰ By 1981, eleven newly formed airlines providing jet service had entered the industry. CAB STAFF REPORT, *supra* note 2, at 125. The market share of the six largest trunk carriers has eroded steadily since deregulation, from a 70% market share in 1980 to a 62% market share in 1985. Wall St. J., Feb. 28, 1986, at 1, col. 6.

⁸¹ P. SAMUELSON, *supra* note 60, at 460. Conversely, "[i]mperfect competition prevails in an industry or group of industries wherever the individual sellers are imperfect competitors, facing their own nonhorizontal . . . [demand] curves and thereby having some measure of control over price." *Id.* at 461.

⁸² *Id.* "The imperfect competitor is contriving to keep things a little scarce. He is contriving to keep P [profit] above MC [marginal cost] because in that way he sets MR [marginal revenue] = MC and thereby maximizes his profits. So society does not get quite as much of A's good as it really wants in terms of what that good really costs society [to] produce." *Id.* at 476.

⁸³ See *supra* note 81 and accompanying text.

⁸⁴ See *supra* note 82 and accompanying text.

sults in a price higher than marginal cost, optimum efficiency goes unachieved because "society does not get quite as much of [the firm's] good as it really wants in terms of what that good really costs society [to] produce."⁸⁵ Thus, in a controlled entry environment, each firm facing an individual downward sloping demand curve maximizes its profits at a price level which results in misallocation of resources.

The *nature* of the entry control becomes irrelevant in light of the foregoing analysis. Instead, entry control itself creates market conditions conducive to misallocative price levels. The challenge lies in identifying a method of allocation which distributes airport resources to those firms who will use them most efficiently, and which has minimum impact on free entry. The first step toward finding the optimum method of allocation involves determination of a means for establishing the true scarcity value of each airport resource.

IV. ECONOMIC VALUE OF AIRPORT RESOURCES

The 1986 FAA Buy-Sell Slot Rule was the result of input from economists, lawyers, and members of the airline industry. The Rule suffers, however, from a general lack of cross-fertilization of ideas between lawyers and economists on the issue of airport resource allocation. In *In re Braniff Airways Inc.*,⁸⁶ for example, the court determined the property status of certain Braniff Airlines airport slots in a bankruptcy proceeding. The court rejected Braniff's characterization of the slots as property,⁸⁷ on grounds that the Special Federal Aviation Regulations (SFAR's)⁸⁸ establishing slots were "rules as defined in the Administrative Procedure Act"⁸⁹ and that slots established there-

⁸⁵ P. SAMUELSON, *supra* note 60, at 476.

⁸⁶ 700 F.2d 935 (5th Cir. 1983).

⁸⁷ *Id.* at 942.

⁸⁸ *Id.*

⁸⁹ *Id.*; see 5 U.S.C. § 551(4) (1982) (including any "agency statement of general or particular applicability and future designed to implement, interpret, or prescribe law or policy" as a rule under the Administrative Procedure Act).

under "do not lose their character as rules because they modify airlines' claimed rights to slot allocation."⁹⁰ The court characterized slots as "restrictions on the use of property — airplanes; not property in themselves,"⁹¹ and thus not within the jurisdiction of the bankruptcy court.⁹² The court does not cite any economic studies or analyses to support their conclusion that slots are not property, nor does the opinion contain any indication that Braniff presented an economic analysis of slot values to the court.

Economists rarely refer to legal authority when analyzing an economic problem. For example, in a recent Bureau of Economics Staff Report to the Federal Trade Commission,⁹³ there is not a single reference to a court decision.⁹⁴ (The report notes, however, that during the FAA 1982 six-week slot sale experiment, over 190 slots actually were sold on the open market for considerable sums.⁹⁵ The report goes on to explain, in economic terms, why the prices paid for the slots reflected the value of the existing slot scarcity.⁹⁶)

In short, lawyers and economists simply do not converse on issues such as slot allocation (perhaps in part because they speak such different languages). The result has been an unfortunate irony in which a court of law can regard a slot as having no property status, while an economist characterizes the same slot as valuable property and even purports to determine its precise market value.⁹⁷

The following sections of this article review both the

⁹⁰ 700 F.2d at 942.

⁹¹ *Id.* See also *Northwest Airlines, Inc. v. Goldschmidt*, 645 F.2d 1309, 1321 (8th Cir. 1981); *Air Line Pilots Ass'n, Int'l v. Quesade*, 276 F.2d 892, 896 (2d Cir. 1960) (FAA action limiting pilots' licenses to age 60 does not lose rulemaking character because it changes pilots' claimed property rights).

⁹² See 11 U.S.C. § 105 (1982).

⁹³ FTC REPORT OF THE AIRPORT TASK FORCE,, *supra* note 4, at 9-10.

⁹⁴ *Id.* There are, however, references to administrative regulations. *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.* at 33.

⁹⁷ *Id.* at 11: "For restricted hours, we estimated that slot prices would have ranged from about \$100,000 per year between noon and 1 in the afternoon to just over \$420,000 per year between 5 and 6 in the evening."

economic status and legal status of airport resources, as background to an analysis of the FAA Buy-Sell Rule as well as alternative methods of airport resource allocation. While the Rule itself relates only to "slots," it must be evaluated in the broader context of airport resources, including gates and terminal space.

A. Gates and Terminal Space

Any approach to ascertaining the economic value of an airport gate or terminal facility must be largely theoretical. If gates were freely alienable, the simplest approach would be to determine sale or lease prices on the open market.⁹⁸ In fact, however, utilization of many gate and terminal spaces occurs pursuant to long-term leases entered into with airport authorities before regulation.⁹⁹ Such long-term leases were not acquired through open-market bidding, but were inextricably bound up with the CAB-sanctioned airline cartel. To complicate matters further, airlines in some cases own terminal facilities outright. Tied down by both long-term leases and airline ownership, an airport's degree of control over facilities varies widely.¹⁰⁰ At some airports, airlines have "majority

⁹⁸ The fact that sublease fees are often greatly in excess of the original base fee indicates that the original fee did not reflect true market value. See AIRPORT ACCESS REPORT, *supra* note 4, at 49-108.

⁹⁹ *Id.* at 54-58. To a large extent, therefore, economic regulation still rules from the grave.

¹⁰⁰ The AIRPORT ACCESS REPORT identified four basic types of airport ownership and control:

(1) *AIRLINE OWNED AND CONTROLLED* - Ex: Most of the terminal buildings at JFK; Eastern's terminal at Boston; South Terminal Corporation at Boston, owned by American, Northwest, Pan Am, and USAir.

(2) *AIRPORT OWNED, BUT AIRLINE MANAGED AND CONTROLLED* - Ex: Atlanta Terminal Corporation and New Delta Terminal at O'Hare.

(3) *THIRD PARTY OWNED AND LEASED BACK TO AIRLINE OR AIRPORT*: This is a new concept with varying degrees of control by all three parties, depending on contractual arrangements. Ex: Huntsville, Alabama (Hertz Corporation); National Terminal at JFK. Due to recent tax incentives, these arrangements may become more prevalent.

(4) *AIRPORT OWNED AND AIRPORT CONTROLLED* - The amount

in interest" clauses in their written agreements with airport authorities, giving the airlines decision-making powers in critical areas of airport administration.¹⁰¹ Airlines also influence airport policy through "negotiating" committees representing airline interests.

Even if sufficient data existed, determining gate or terminal value by simply estimating supply and demand values would not prove fully satisfactory since the seller or lessor of such resources usually takes the form of either a monopoly (the airport itself) or an oligopoly (*i.e.*, an incumbent airline) subleasing a gate or space. When gate space has been subleased, it often has been for fees characterized as "excessive."¹⁰² Sublease fees in excess of value as determined by traditional marginal cost,¹⁰³ mar-

of airport control varies and is determined by contractual agreements, industry practices, etc. Ex: A majority of U.S. airports.

Id. at 50.

¹⁰¹ *Id.* at 59. The AIRPORT ACCESS REPORT describes such clauses as follows:

In many airport leases, signatory carriers are given certain rights of approval of airport decision making on specified matters, through what is commonly called a "majority-in-interest" clause. The clause is so named because specified airport proposals must be approved by the signatory carriers constituting a "majority-in-interest." The definition of a majority-in-interest varies from lease to lease, but is usually cast in terms of a specified percentage of enplanements or operations, such as 60% of passengers or operations.

Id.

¹⁰² *Id.* at 63:

Before deregulation, airlines did their own reallocation of terminal space and only went to the airport owner when the reallocation presented a very competitive situation that could not be worked out. In most cases, the incumbent carrier has a tendency to hold on to its existing space, but would consider a sublease to a new carrier. Without the airport having the right to reassign space, the requesting carrier must negotiate with an incumbent carrier, depending on the availability of surplus space. The terms of these agreements vary considerably and may or may not be subject to airport review or approval.

High fees and reserved rights to recover the space on short notice have been the primary complaints. Only one airport surveyed had the right to review and modify the terms of a sublease agreement.

¹⁰³ "Marginal cost at any production level *q* is the extra cost of producing one extra unit more (or less); it comes from subtracting total dollar costs of adjacent output." P. SAMUELSON, *supra* note 60, at 429 (footnote omitted). Before deregulation, most airports charged fees based on "equalized" rental rates, spreading the cost of an additional unit over the cost of all previously constructed units. It

ginal revenue,¹⁰⁴ or marginal utility¹⁰⁵ approaches must be considered in light of the Airport and Airway Development Act of 1970, as re-codified in the Airport and Airway Improvement Act of 1982.¹⁰⁶ This act states that an airport "will be available for public use on fair and reasonable terms."¹⁰⁷

has been suggested, however, that this practice be revised to require that the entire cost of the marginal unit be paid for by the carrier using it. See AIRPORT ACCESS REPORT, *supra* note 4, at 66. See also *Southern Airways, Inc. v. City of Atlanta*, 428 F. Supp. 1010 (N.D. Ga. 1977) (failure to incorporate into formulas used in determining rental values of space on concourses an element recognizing alleged differences in value of various concourses was not unreasonable or discriminatory).

¹⁰⁴ "Marginal Revenue"[MR] is defined as the increment of Total Revenue (plus or minus) that comes when we increase q by an increment of one unit. MR is plus when demand is still elastic, minus when demand is inelastic, and just crosses zero when demand turns from being elastic to being inelastic." P. SAMUELSON, *supra* note 60, at 470.

¹⁰⁵ "Marginal utility" here refers to the law of diminishing marginal utility. As you consume more of the same good, your total (psychological) utility increases. However, let us use the term marginal utility, to refer to "the extra utility added by one extra last unit of a good." Then, with successive new units of the good, your total utility will grow at a slower and slower rate because of a fundamental tendency for your psychological ability to appreciate more of the good to become less keen. This fact, that the increments in total utility fall off, economists describe as follows:

As the amount consumed of a good increases, the marginal utility of the good (or the extra utility added by its last unit) tends to decrease.

Id. at 410.

¹⁰⁶ 49 U.S.C. app. §§ 2201-25 (1982).

¹⁰⁷ *Id.* The act provides that

the airport to which the project relates will be available for public use on fair and reasonable terms and without unjust discrimination, including the requirement that (A) each air carrier using such airport (whether as a tenant, nontenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rates, fees, rentals, and other charges and such nondiscriminatory and substantially comparable rules, regulations, and conditions as are applicable to all such air carriers which make similar use of such airport and which utilize similar facilities, subject to reasonable classifications such as tenants or nontenants, and combined passenger and cargo flights or all cargo flights, and such classification or status as tenant shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on tenant air carriers, and (B) each fixed-based operator at any airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all

Traditional approaches to value determination for airport resources have failed to take into account the value of denying entry to competitors. The consequences of denying a sublease to a competitor are as follows: (1) the incumbent will face a steeper declining demand curve for air service¹⁰⁸; (2) incumbents will have greater control over price¹⁰⁹; (3) the incumbent firm will maximize profit at a price higher than marginal cost (except when marginal cost equals marginal revenue)¹¹⁰; (4) the incumbent firm will earn an extra "oligopoly" profit above that which it would earn in the face of free entry and a less steeply declining demand curve to the incumbent¹¹¹; and (5) air service is misallocated since society does not get "as much of [it from the incumbent] as it really wants in terms of what [the air service] really costs society [to] produce."¹¹²

other fixed-based operators making the same or similar uses of such airport utilizing the same or similar facilities, and (C) each air carrier using such airport shall have the right to service itself or to use any fixed-base operator that is authorized by the airport or permitted by the airport to serve any air carrier at such airport: (2) there will be no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public.

Id. at § 2210(a)(1).

¹⁰⁸ See P. SAMUELSON, *supra* note 60, at 471.

¹⁰⁹ See *id.*

¹¹⁰ See *id.* at 474.

For the firm with some monopoly power, maximizing profits by equating Marginal Revenue to Marginal Cost leads to a price that is above Marginal Cost. The canny seller contrives an artificial scarcity of his product so as not to spoil the price he can get on the earlier premarginal units.

.....

For a small perfect-competitor, Marginal Revenue works out to be exactly the same thing as Price. With no need to cut your P to sell an extra unit of q, the incremental Marginal Revenue it brings you is precisely the P received for that last unit, with no loss on previous units being subtracted. Hence, $MR = MC$ and $P = MR$ do lead to the special rule for profit maximizing by a perfect-competitor:

$P = MR = MC$ at a perfect-competitor's Maximum-profit point

.....

Id.

¹¹¹ See *id.*

¹¹² *Id.* at 476. This economist's definition of inefficiency resulting from a price which exceeds marginal cost is sometimes difficult to translate in terms meaningful to the lawyer or social scientist. The latter is apt to miss the whole point of the economist's definition of optimum social pricing, by responding: "We shouldn't

The "oligopoly profit" earned must then be added to the value of the gate held by an incumbent firm who has the power to deny the use of the gate to a potential competitor. When added, it comes as no surprise that subleases have fetched fees considered "excessive."¹¹³

The "oligopoly profit" potential of a gate or airport facility must be taken into account in any proposal which simply would allow gates to be sold or leased on the open market, since a sale or sublease of a gate is, in part, a sale of an oligopoly right. Merely allowing an oligopoly right to be sold will not, standing alone, necessarily improve resource allocation or efficiency. For example, at the height of motor carrier regulation, the total value of motor carrier "operating certificates" (*i.e.*, oligopoly rights) was estimated to be worth three to four billion dollars.¹¹⁴ Indeed, the American Trucking Association noted that "virtually the only way for [a relatively small carrier] to

care so much about economic efficiency, instead we should be concerned about fairness and the social welfare." Thus, under airline regulation, the regulators had no qualms about enforcing a price higher than marginal cost on some high-density routes, while insisting upon a price lower than marginal pricing on some low-density routes. This required some passengers to cross-subsidize others. Although the regulator rationalizes such a policy on the ground of the "public welfare," the net result is a tragic waste of society's resources. The following example may be helpful: Suppose that a regulator decides that, in the interests of "public welfare," all television sets must be priced at \$10, even though it costs \$200 to produce them. (The manufacturer is provided with a \$190 subsidy to make up the difference in cost). At a \$10 price, a consumer may purchase a television just to get the glass for a picture frame since such glass alone costs \$15. The rest of the television, now useless, may be discarded. Other consumers, however, to whom the television would provide more than \$200 worth of utility, cannot get a television at *any* price, since there are not enough sets available for all consumers who demand them at the \$10 price. The consumer to whom the television set provides only \$10 worth of utility ends up wasting \$190 worth of society's labor. The consumer to whom the television set would provide \$250 worth of utility gets nothing or may end up buying it on the black market for \$500 when it only cost society \$200 to produce it. The result is waste, pure and simple, since "society does not get as much of it in terms of what it cost society [to] produce." *Id.* If the "public welfare" demands that all consumers be able to purchase a television set, the solution is to redistribute the dollar "votes" — not create an economic environment where price is either above or below marginal cost.

¹¹³ AIRPORT ACCESS REPORT, *supra* note 4, at 51.

¹¹⁴ See SNOW & SOBOTKA, *Certification Values*, in REGULATION OF ENTRY AND PRICING IN TRUCK TRANSPORTATION 153 (P. MacAvoy & J. SNOW ed. 1977) [hereinafter cited as FORD PAPERS].

obtain additional operating authorities is to buy them from other motor carriers."¹¹⁵ Merely allowing an oligopoly right to be sold has two effects: (1) it shifts oligopoly profits from the seller firm to the buyer firm; and (2) it reduces the oligopoly profits of the buyer firm by the amount paid for the oligopoly right. The sale of a certificate in no way alters the nature of the oligopoly right itself, which still enables its holder (whoever that may be) to maximize profit at a price in excess of marginal cost.

In economic terms, possession of a scarce airport gate or facility differs little from possession of an "operating certificate" under economic regulation, for without it a firm simply can not "operate." It is not surprising, therefore, that those in possession of gates or terminal space are reluctant to give up those possessions at any price. Indeed, the Airport Operators Council International (AOCI) conducted a survey revealing that sixty of the eighty-eight United States airports responding did not have any unleased terminal space for new entries¹¹⁶; thirty-one airports indicated infeasible subleasing situations due to high utilization of leased space, or because of "excessive" rates to sublessees.¹¹⁷ This experience in long-term gate leases raises some concern about the prognosis for slot sales or leases under Buy-Sell. Furthermore, the FAA Slot Sale Rule does not address the problems of access denial to terminal facilities. The usefulness of Buy-Sell as a means of eliminating obstacles to free entry must therefore be evaluated in that context.

¹¹⁵ *Id.* For a tragic example of the injustices caused by the certificate system, see *Schaffer Transp. Co. v. United States*, 355 U.S. 83 (1957). In that case, the Interstate Commerce Commission had denied a certificate to a carrier offering faster and cheaper service, since slower and more expensive service was deemed "adequate." *Id.* at 89. Although the Court reversed the ICC decision six years after the agency denied the certificate, Schaffer had gone out of business by that time. See A. FRIEDLAENDER, *supra* note 40, at 114.

¹¹⁶ AIRPORT ACCESS REPORT, *supra* note 4, at 71.

¹¹⁷ *Id.* Twenty-nine airports indicated that subleasing arrangements were still possible. *Id.*

B. *Landing Slots*

Much of the foregoing analysis of gate and terminal space values also applies to landing slots. One very important difference must be recognized, however, before determining the economic value of landing slots — namely, the difference in legal status.¹¹⁸ As noted, terminal space may be either leased or owned outright by an air carrier.¹¹⁹ Except for possible antitrust considerations,¹²⁰ such leases or sales of space are recognized legally as transfers of legitimate property rights.¹²¹ The court in the *Braniff* case, discussed above,¹²² described slots as "not property in themselves."¹²³ In the case of slots not recognized as property, valuable economic rights given in earlier years may be retrieved more easily for purposes of allocation *de novo*.

A landing slot is best characterized as the right to take off or land aircraft at an airport — in short, a "reservation" for takeoffs and landings.¹²⁴ Nevertheless, an important common denominator exists with respect to both gates and slots: both carry with them the economic equivalent of an operating certificate. Thus, in determining the value of a slot, the value to a holder of denying entry to a competitor must be considered.

A 1983 FTC Economic Policy Analysis calculated the base value of a slot (*i.e.*, an airline's willingness to pay for a slot) by a traditional demand and cost approach.¹²⁵ The

¹¹⁸ See *Braniff*, 700 F.2d at 942.

¹¹⁹ See *supra* note 100 and accompanying text.

¹²⁰ See *infra* notes 385-394 and accompanying text.

¹²¹ See AIRPORT ACCESS REPORT, *supra* note 4, at 70.

¹²² See *supra* notes 86-92 and accompanying text.

¹²³ 700 F.2d at 942.

¹²⁴ *Eastern Air Lines, Inc. v. F.A.A.*, 772 F.2d 1508, 1510 (11th Cir. 1985). The FTC has noted that the more precise definition of a slot is the "right to use the navigable airspace for a takeoff or landing at a particular airport during a particular hour of the day." Comments of the Bureaus of Economics, Competition, and Consumer Protection of the Federal Trade Commission before the FAA 2, n.1, Docket No. 24,110 (Aug. 3, 1984) [hereinafter cited as Bureau Comments].

¹²⁵ FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 4, at 39-69.

report, upon which the FAA heavily relied, defines a slot's value as follows:

The maximum price an airline would pay for a slot is the amount that, when added to the other costs of the flight that will use the slot, equals the flight's expected revenues. This amount is directly related to the value that passengers place on the flight which, in turn, is a function of such variables as passengers' income, purpose of trip, [etc.]

...¹²⁶

The FTC report opines that if slots could be freely sold, "carriers with high-valued flights would bid slots away from those with low-valued flights."¹²⁷ The report further notes that, to the extent that non-market allocation methods prevent free entry, "monopoly profits can be earned in otherwise contestable markets."¹²⁸ That non-market allocation methods in fact create such barriers finds support in a reference to the action of an airline scheduling committee at Washington National:

At the last meeting the dispute was so intense that nine airlines voted against a proposal that would have given each of them exactly the number of flights they wanted. They did so, they said, to keep New York Air and USAir from increasing the number of their flights.¹²⁹

But while recognizing the threat of free entry caused by non-market methods, the report minimizes a similar threat posed by a market approach:

The likelihood of successful monopolization by buying slots . . . appears to be small. While a slot market would facilitate the obtaining of slots by the airline attempting to monopolize, it would be necessary for the airline to obtain most of the slots available at an airport to monopolize any route into that airport. And, the existence of the slot market would also facilitate entry by rivals, if the would-be

¹²⁶ *Id.* at 7.

¹²⁷ *Id.* at 8.

¹²⁸ *Id.* at 20.

¹²⁹ *Id.* at 16 (quoting *The Washington Post*, Nov. 8, 1982).

monopolizer attempted to raise his price.¹³⁰

There are two problems with this analysis. First, the alternatives are not total monopolization or total contestability. A declining demand curve can be steeper by degrees. While total monopolization might not be feasible for the reasons given by the report, the fact remains that each slot held by an incumbent firm represents exactly one slot *not* held by a competitor. Each competitor eliminated from the market causes the demand curve facing the incumbent to become slightly steeper, thereby permitting the incumbent to reap, by degrees, a slightly higher oligopoly profit. Second, the incentive of an incumbent to prevent free entry by manipulating political or non-market procedures or mechanisms (such as a scheduling committee), should be no greater than the incentive to do so by using market power to outbid potential entrants.

The report confidently states that "an airline would not buy a slot in order to operate a flight that is expected to have a relatively low value, simply because it has the cash to do so,"¹³¹ noting that "[c]apital markets exist precisely to evaluate such investments and to provide funds for those that appear sufficiently attractive."¹³² The latter conclusion apparently follows from a slot value calculation that fails to account for the oligopoly profits accruing to the large firm able to frustrate free entry of a competitor by outbidding it for a slot.

A slot has a premium oligopoly value for a firm facing a non-horizontal demand curve. Such a firm has a large enough percentage of the market to influence price by varying output. However, this extra oligopoly premium does not exist for the smaller firm facing a horizontal demand curve.¹³³

¹³⁰ *Id.*

¹³¹ *Id.* at 28.

¹³² *Id.*

¹³³ A firm not large enough to affect price by varying output has no incentive to outbid solely for the purpose of depriving a competitor of a slot. To outbid a

The value of a slot to a new entrant or expanding competitor facing a horizontal demand curve nevertheless may be greater than the base value which reflects only the amount which "when added to the other costs of the flight that will use the slot, equals the flight's expected revenues."¹³⁴ This excess represents the value of the right to do business at all. Thus, for the hopeful entrant, a slot represents more than just a cost of operating a particular flight. The slot serves effectively as an "operating certificate."¹³⁵

The above proposition is exemplified by a potential new entrant willing to pay a price for a slot in excess of that amount which "when added to the other costs of the flight that will use the slot, equals the flight's expected revenues."¹³⁶ The entrant will pay the higher price because it knows that the market price of a flight will not cover slot costs; the entrant will take even a loss initially, in order to gain a foothold in the market. As Areeda and Turner noted in their landmark article *Predatory Pricing and Related Practices Under Section Two of the Sherman Act*:

[P]romotional price is a temporary, low price designed to induce patronage with the expectation that the customer will continue purchasing the product in the future at a higher price. . . . [P]romotional price may be below cost [and such] pricing can facilitate new entry or the expansion of small rivals in an industry dominated by one or a few large firms.¹³⁷

The authors qualify this observation, however, by noting that "the monopolist can make no such case for promotional pricing. . . . In contrast to new entrants or small rivals, he has little need to resort to extreme price reduc-

competitor for this purpose alone could not serve to steepen the small firm's own demand curve, since its demand curve is, by definition, horizontal. Thus, no oligopoly profit could be earned solely by depriving a competitor of a slot.

¹³⁴ FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 4, at 7.

¹³⁵ See *supra* note 114 and accompanying text.

¹³⁶ FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 4, at 7.

¹³⁷ Areeda & Turner, *Predatory Pricing and Related Practices Under Section Two of the Sherman Act*, 88 HARV. L. REV. 697, 713 (1975).

tions to acquaint existing consumers with the merits of his brand."¹³⁸

For the small entrant facing a horizontal demand curve, a slot's value includes the right to operate and gain the opportunity to engage in promotional pricing below average cost, an operation that carries with it the potential for reaping future profits at prices above average cost.

The preceding analysis leads to the following proposition: For large firms facing non-horizontal demand curves, the oligopoly premium of a slot (and thus the total value of the slot) will vary with the extent of that firm's market share. For smaller firms facing horizontal demand curves, the "right to operate" or "opportunity for promotion" premium of a slot (and thus the total value of the slot) will vary with that firm's potential for future profits at prices above average cost. Thus, *to the extent that the large firm's total premiums exceed the smaller firm's total premiums, the large firm will have the economic incentive to outbid the smaller firm for a slot.* However, as the FTC correctly observed, this does not necessarily mean they will have the economic power to do so. The fact that the major carrier has more money in the bank than the smaller carrier is not determinative. Slot sales can be financed, and generally lenders look to past performance in lending money.¹³⁹ (Indeed, the rate of return for the twelve largest firms in 1981-82 was less than for the next smaller group of carriers.¹⁴⁰) Thus, *the smaller carriers might have greater economic power than the larger firms to finance, and, consequently, greater power to purchase slots.* This would be particularly true if the large firms lack liquidity or if they have large debt to capital ratios.

Nevertheless, because of the greater *value* of a slot to large firms, these firms may end up outbidding smaller firms. If this occurs, the following will result: (1) Entry will be inhibited, thus permitting incumbent firms to face

¹³⁸ *Id.* at 714.

¹³⁹ FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 4, at 28.

¹⁴⁰ *Id.*

a steeply declining demand curve and enabling them to set prices at a profitable, but misallocative, level above marginal cost. (2) Combined with a "lose it or use it" provision, large outbidding firms may use slots for flights that do not cover variable costs in order to keep the slots and thus preserve an oligopoly profit on other flights. To the extent that such a slot might be utilized for a more highly valued flight by an outbid competitor, society sustains a net economic loss.

The foregoing discussion should not be read to suggest that existing non-market allocative methods are superior to Buy-Sell. Rather, the quest simply seeks discovery of a "least anti-competitive" solution. An informed choice of allocative method(s) can be made only after comparison of the economic effects of all methods. The choice of allocative method(s) depends first, however, upon an understanding of the value of the resource to be allocated.

V. LEGAL STATUS OF AIRPORT RESOURCES

Some proposed methods of airport resource allocation will require changes in federal statutory law, regulatory policy, or state or local law; others will not. Thus, any proposed allocation method must take into account the legal status of airport resources as private property.

The first major legislation affecting airlines was the Contract Mail Act of 1925.¹⁴¹ Rate-setting powers for air-mail contracts were given to the Interstate Commerce Commission under an amendment to the Airmail Act of 1934.¹⁴² The Civil Aeronautics Act of 1938 gave broad economic regulatory powers to the newly created CAB.¹⁴³ The Federal Aviation Act gave the FAA responsibility for

¹⁴¹ 43 Stat. 805 (1925) (current version at 39 U.S.C. §§ 5401-03 (1982)). See Morgan, *Government and the Industry's Early Development*, in HARVARD PROJECT, *supra* note 54, at 14.

¹⁴² 48 Stat. 933-39 (current version at 39 U.S.C. §§ 5401-03 (1982)). See Note, *Is Regulation Necessary? California Air Transportation and National Regulatory Policy*, 74 YALE L.J. 1416, 1418 (1965).

¹⁴³ See 52 Stat. 973 (1938) (codified as amended at 49 U.S.C. §§ 1301-1542 (1982)).

aviation safety,¹⁴⁴ establishing air-navigation facilities¹⁴⁵ and authority to assign navigable airspace.¹⁴⁶ The FAA frequently has maintained its ultimate power to allocate slots under such statutory grants of authority, in one order asserting that it would impose minute by minute restrictions on slots if carriers could not agree on a voluntary allocation.¹⁴⁷ In general, federal courts have acknowledged FAA's power to assign slots¹⁴⁸ subject to limited review in the appellate courts.¹⁴⁹ The FAA exerts additional influence on airport policies and operations through its ownership of air traffic control equipment.¹⁵⁰

The Airline Deregulation Act of 1978 brought an end to formal economic regulation of the airline industry.¹⁵¹ Pursuant to this act, the CAB ceased to exist on January 1, 1985,¹⁵² and its surviving responsibilities were transferred to the DOT and FAA.¹⁵³ Economic deregulation since 1978 has brought into sharp focus the existing restrictions on airport access. Before deregulation, airport access restrictions did not result in entry control since CAB regulation already controlled entry.¹⁵⁴ Under deregulation,

¹⁴⁴ See 49 U.S.C.A. § 1302(a) (West Supp. 1986).

¹⁴⁵ See *id.* at § 1348(b).

¹⁴⁶ See *id.* at § 1348(c).

¹⁴⁷ FAA notice 84-14, 49 Fed. Reg. 33,082 (1984). See 14 C.F.R. pt. 93 (1985). In further exercise of such authority, the FAA promulgated various "High Density" rules establishing quotas on the number of Instrument Flight Rule reservations per hour. See 38 Fed. Reg. 29,463 (1973). These rules culminated in the "Interim Operations Plan," see 49 Fed. Reg. 8,327 (1984), in the aftermath of the 1981 PATCO strike. This plan extended slot restrictions to twenty-two airports. See *id.*

¹⁴⁸ The legislative history of the Federal Aviation Act reveals "unquestionable authority for all aspects of airspace management in the [FAA]." S. REP. No. 1811, 85th Cong., 2d Sess. 14 (1958), quoted in *Braniff*, 700 F.2d at 941.

¹⁴⁹ See 49 U.S.C.A. § 1486(a) (West Supp. 1986).

¹⁵⁰ See *id.* at § 1348(b).

¹⁵¹ Pub. L. No. 95-504, 92 Stat. 1705 (1978) (codified as amended in scattered sections of 49 U.S.C.).

¹⁵² See *supra* note 5.

¹⁵³ See *supra* note 151.

¹⁵⁴ See generally S. BREYER, *supra* note 61; HARVARD PROJECT, *supra* note 54; Dempsey, *supra* note 52, at 329; Jones, *Government Price Controls and Inflation: A Prognosis Based on the Impact of Controls in the Regulated Industries*, 65 CORNELL L. REV. 303, 317-18 (1980).

airport access restrictions primarily control entry. Such airport restrictions therefore have taken on an economic significance that did not exist during industry regulation. However, the legal authority relating to these restrictions has not fully accommodated this change in economic status.

A. *Federal vs. Local Authority*

The question of who has the authority to restrict airport access complicates the problem of determining the legal status of airport resources. While FAA has authority over safety and assignment of navigable spaces,¹⁵⁵ the line sometimes blurs between that power and state¹⁵⁶ and local propriety authority to control noise,¹⁵⁷ condemn property adjacent to airports,¹⁵⁸ and enter into local leasing agreements.¹⁵⁹

¹⁵⁵ 49 U.S.C.A. § 1348(a) (West Supp. 1986).

¹⁵⁶ See *Depue, Airport Use and Access*, 4 NORTHROP U.L.J. 159, 162 (1983).

¹⁵⁷ See, e.g., *City of Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624 (1973); *Griggs v. Allegheny County*, 369 U.S. 84 (1962); *Aviation Safety and Noise Abatement Act of 1979*, 49 U.S.C. app. §§ 2101-08 (1982).

S. REP. NO. 1353, 90th Cong., 2nd Sess. 6-7 (1968) provides that:

It is not the intent of the committee in recommending this legislation to effect any change in the existing apportionment of powers between the Federal and State and local governments. . . . "The Federal Government is in no position to require an airport to accept service by larger aircraft and, for that purpose, to obtain longer runways. Likewise, the Federal Government is in no position to require an airport to accept service by noisier aircraft, and for that purpose to obtain additional noise easements. The issue is the service desired by the airport owner and the steps it is willing to take to obtain the service. In dealing with this issue, the Federal Government should not substitute its judgment for that of the States or elements of the local government who, for the most part, own and operate our Nation's airports." The proposed legislation is not designed to do this and will not prevent airport proprietors from excluding any aircraft on the basis of noise considerations.

Id., reprinted in Bennett, *Airport Noise Litigation: A Case Law Analysis*, 47 J. AIR L. & COM. 449, 453 n.18 (1982) (quoting Letter from Secretary of Transportation to Committee on Commerce (June 22, 1968)).

¹⁵⁸ See, e.g., *Alevizos v. Metropolitan Airports Comm'n of Minneapolis and St. Paul*, 298 Minn. 471, 216 N.W.2d 651 (1974).

¹⁵⁹ See *supra* notes 99-102 and accompanying text.

In *Griggs v. Allegheny County*¹⁶⁰ the United States Supreme Court held local airport authorities, rather than the FAA, responsible for noise damage done to property adjacent to a local airport, even though FAA played a large role in construction of the airport.¹⁶¹ At least one commentator interprets subsequent congressional acts¹⁶² as assigning primary responsibility for noise control to local authorities while still acknowledging some federal interest.¹⁶³ (For example, the FAA has responsibility for setting aircraft noise emission levels.¹⁶⁴)

In *City of Burbank v. Lockheed Air Terminal, Inc.*,¹⁶⁵ however, the Court struck down a local noise regulation on the ground that it was preempted by federal legislation giving the FAA control over noise.¹⁶⁶ Federal courts have

¹⁶⁰ 369 U.S. 84 (1962).

¹⁶¹ *Id.* at 89.

¹⁶² See, e.g., the compilation of acts set forth in Bennett, *supra* note 157, at 452-53. These include, *inter alia*, the Aviation Safety and Noise Abatement Act of 1979, 49 U.S.C. app. §§ 2101-08 (1982), and the Airport Noise Compatibility Planning Regulation of 1984, 14 C.F.R. § 150 (1985).

¹⁶³ One commentator summarizes the law in this area as follows:

A review of the federal and state cases demonstrates that the judiciary still adheres to the *Griggs* decision. This adherence to *Griggs* strongly emphasizes that responsibility for the consequences of noisy aircraft is with the airport proprietor, regardless of whether the proprietor is a public entity or a private party. The airport proprietor has the authority to control noise levels through the determination of the airport's location, the direction of the runways and therefore the direction of flight of the aircraft, and through the construction and the operation of the airport. It is evident that federal plenary powers in the area of navigable airspace do not shield the airport proprietor against legal, and thus financial, responsibility for damages due to aircraft noise.

Bennett, *supra* note 157, at 463.

¹⁶⁴ See generally National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-70 (1982).

¹⁶⁵ 411 U.S. 624 (1973).

¹⁶⁶ *Id.* at 633-34. The Court states:

[The Noise Control Act] reaffirms and reinforces the conclusion that FAA, now in conjunction with EPA, has full control over aircraft noise, preempting state and local control . . .

It is the pervasive nature of the scheme of federal regulation of aircraft noise that leads us to conclude that there is pre-emption. As Mr. Justice Jackson stated, concurring in *Northwest Airlines, Inc. v. Minnesota*, 322 U.S. 292, 303: "Federal Control is intensive and exclusive. Planes do not wander about in the sky like vagrant clouds.

attempted to reconcile *Griggs* and *Burbank* by making a distinction between "inflight" and "ground" restrictions.¹⁶⁷

They move only by federal permission, subject to federal inspection, in the hands of federally certified personnel. The moment a ship taxis onto a runway it is caught up in an elaborate and detailed system of controls." *Id.* at 633-34.

It also may be significant to note that *Griggs* was decided before the Noise Control Act, and *Burbank* was decided after passage of that act.

¹⁶⁷ See, e.g., *Luedtke v. County of Milwaukee*, 521 F.2d 38 (7th Cir. 1975); *Air Transp. Ass'n of Am. v. Crotti*, 389 F. Supp. 58 (N.D. Cal. 1975); *County of Cook v. Priester*, 318 N.E.2d 327, 22 Ill. App. 3d 964 (1974). The Court in *Burbank* relied heavily on a letter from the Secretary of Transportation dated June 22, 1968, written in response to a question as to whether the Noise Control Act would "to any degree preempt State and local government regulation of aircraft noise and sonic boom." (asked during *Hearings Before the Aviation Subcomm. of the Senate Comm. on Commerce on S. 707 and H.R. 3400, Aircraft Noise Abatement Regulation*, 90th Cong., 2d Sess. 29 (1968)). *Burbank*, 411 U.S. at 624. The letter stated in part:

The courts have held that the Federal Government presently preempts the field of noise regulation insofar as it involves controlling the flight of aircraft. . . . H. R. 3400 would merely expand the Federal Government's role in a field already preempted. It would not change this preemption. State and local governments will remain unable to use their police powers to control aircraft noise by regulating the flight of aircraft.

Id. (quoting the letter). The dissent in *Burbank* responded with a quote from a Senate Commerce Committee report on the 1968 amendments to the Federal Aviation Act:

However, the proposed legislation will not affect the rights of a State or local public agency, as the proprietor of an airport, from issuing regulations or establishing requirements as to the permissible level of noise which can be created by aircraft using the airport. Airport owners acting as proprietors can presently deny the use of their airports to aircraft on the basis of noise considerations so long as such exclusion is nondiscriminatory.

Id. at 649 (Rehnquist, J., dissenting). The dissent concludes,

Considering the language Congress enacted into law, the available legislative history, and the light shed by these on the congressional purpose, Congress did not intend either by the 1958 Act or the 1968 Amendment to oust local governments from the enactment of regulations such as that of the city of Burbank. The 1972 Act quite clearly intended to maintain the status quo between federal and local authorities. The legislative history of the 1972 Act, quite apart from its concern with avoiding additional preemption, discloses a primary focus on the alteration of procedures within the Federal Government for dealing with problems of aircraft noise already entrusted by Congress to federal competence. The 1972 Act set up procedures by which the Administrator of EPA would have a role to play in the formulation and review of standards promulgated by FAA dealing with noise emissions of jet aircraft. But because these agencies have exclusive authority to reduce noise by promulgating regulations and

One commentator's survey of the cases on noise restriction gleans three criteria for local power over noise abatement: (1) no undue impact on interstate commerce¹⁶⁸; (2) the local authority meets the federal definition of an "airport proprietor"¹⁶⁹; and (3) the restrictions are reasonable and non-discriminatory.¹⁷⁰

Nevertheless, the line between federal and local authority over noise restriction remains blurred.¹⁷¹ A 1983 Airport Access Task Force Report observed that "the fear of liability attributable to noise . . . has caused Federal agencies to shrink from fully asserting their preemptive authority over aviation noise, and has also caused some airport proprietors to adopt use restrictions."¹⁷² The report concluded that "[w]hile noise limitations may provide some protection to local residents, they have affected airport access because of operating and use restrictions that have been imposed. Proliferation of such restrictions would significantly degrade the national air transportation system and frustrate competition."¹⁷³

The report suggests that federal action be taken to insure a quieter environment, thus obviating the need for

implementing standards directed at one or several of the causes of the level of noise, local governmental bodies are not thereby foreclosed from dealing with the noise problem by every other conceivable method.

Id.

¹⁶⁸ See DePue, *Airport Use and Access*, 4 NORTHROP U.L.J. 159, 162 (1983).

¹⁶⁹ See *id.* and the cases cited therein.

¹⁷⁰ See *id.*

¹⁷¹ The tension between federal and local authorities on the issue of noise control remains high. See Rocky Mountain News, Mar. 6, 1986, at 7, col. 1, in which a heated public hearing discussed an "FAA proposal [which] could eliminate noise restrictions requested by Adams County and void the Denver-Adams County [noise] agreement." Governor Lamm is quoted as complaining, "Is Colorado to have no control over its own destiny?" *Id.*

¹⁷² AIRPORT ACCESS REPORT, *supra* note 4, at 28.

¹⁷³ *Id.* at 45. The report made the point even more strongly:

Current restrictions prevent deployment of some aircraft at various airports during certain hours, by requiring inefficient flight procedures, by constraining development of markets, by impeding the development of connecting schedules, and by increasing the costs of operators' maintenance and training activities.

Id. at 23.

local restrictions.¹⁷⁴ In fact, any effective airport resource allocation method will require a high degree of federal action preempting all but the most minimal local restrictions on access under the banner of noise control.

An effective allocation method requires uniform access standards. Since aircraft always travel between two points, one airport's access restriction inevitably affects other airports. Traditional applications of the Commerce Clause of the United States Constitution and federal noise statutes have failed to establish the necessary uniformity.¹⁷⁵ Efficiency in transportation depends upon competition, which in turn depends upon airport access standards that are fair, non-discriminatory, and free. Diverse, local access restrictions, even for such an important social purpose as noise abatement, retard rather than advance the quest for an optimum allocation method.¹⁷⁶

¹⁷⁴ *Id.* at 30:

The Task Force urges that the U.S. Congress consider legislation which would involve the Federal Government in the review of local noise restrictions; such legislation would impose liability on the Federal Government to the extent FAA mandates any change to local rules. FAA would then be able to review proposed limitations on airports to: a) assure noise reduction to the maximum extent practical; b) examine proposed local use restrictions; c) determine whether meaningful noise abatement will result; and d) determine when airport use restrictions impose an undue burden on interstate commerce.

¹⁷⁵ See, e.g., *Santa Monica Airport Ass'n v. City of Santa Monica*, 481 F. Supp. 927, 938-45 (C.D. Cal. 1979); *National Aviation v. City of Hayward*, 418 F. Supp. 417, 425-28 (N.D. Cal. 1976); *British Airways Board v. Port Authority of New York and New Jersey*, 431 F. Supp. 1216, 1220-25 (S.D.N.Y. 1976), *rev'd*, 558 F.2d 75 (2d Cir. 1977). As the AIRPORT ACCESS REPORT, *supra* note 4, at 40, says,

Airport proprietors generally have been cautious about adopting some types of use restrictions, knowing that they have a duty to avoid burdening interstate commerce. The tendency has been to minimize use restrictions that actually reduce economic activity, while comparatively liberal application has been made of restrictions that prevent further growth. The result is that few single use restrictions at a single airport can be shown to significantly burden interstate commerce; the question is removed to the nature of "if such-and-such use restriction is applied throughout the nation, would interstate commerce be significantly burdened?" The answer to this question applied to many of the restrictions in place today, is easily answered, "Yes!"

¹⁷⁶ It should be noted that the Buy-Sell Rule clearly places regulatory authority

B. Terminal Facilities

The present legality of long-term leases and sales of terminal space to private firms endures as the most frustrating legal barrier to an optimum allocative method. Fair and free entry will never be possible as long as major trunk incumbents control primary airport access through such lease interests or ownership. Unfortunately, while entry into such long-term leases in today's deregulated environment might draw antitrust scrutiny,¹⁷⁷ these leases did not draw antitrust attention during economic regulation since they were not the primary instrument of entry control.¹⁷⁸ Indeed, the financial commitments made by private carriers entering long-term leases were considered essential for bond financing.¹⁷⁹ Unlike slots, these leases enjoy the protection of traditional contract and property law principles.¹⁸⁰ As the Airport Access Report so aptly understated, "long term exclusive agreements may create potential competitive problems in today's deregulated environment to the extent that they may enable incumbent carriers at the airport to control access to essential airport facilities."¹⁸¹

In view of the legal restraints on altering existing long-term terminal commitments to private carriers, the report could suggest only solutions like "buying out" the incumbents in order to reallocate leased spaces.¹⁸² This solution hardly appears satisfactory, however, since the economic incentives for outbidding a competitor for space also will encourage refusal to sell space to an air-

over slot sales with FAA, and does not permit local airports to sell slots on their own.

¹⁷⁷ See *infra* notes 384-394.

¹⁷⁸ Entry used to be controlled administratively under the powers granted to CAB by the Civil Aeronautics Act, 52 Stat. 873 (1938) (codified as amended at 49 U.S.C. §§ 1301-1542 (1982)).

¹⁷⁹ AIRPORT ACCESS REPORT, *supra* note 4, at 25.

¹⁸⁰ See *supra* notes 99-101.

¹⁸¹ AIRPORT ACCESS REPORT, *supra* note 4, at 22.

¹⁸² *Id.* at 93. Other options listed by the report were: (1) require incumbents to sublease; (2) automatically recapture space; and (3) permit the market to force sublease. *Id.* at 81-82.

port authority who will in turn lease the space to a possible competitor.¹⁸³

C. Slots

"Planes do not wander about in the sky like vagrant clouds. They move only by federal permission . . .

—Justice Jackson
(concurring in
Northwest Airlines v.
Minnesota)¹⁸⁴

The economic value of slots has been established.¹⁸⁵ Any allocative method, however, must take into account the procedure and source of legal authority for creation and distribution of slots. The Federal Aviation Act offers the natural starting point. This act states, "The Secretary of Transportation is authorized and directed to develop plans for and formulate policy with respect to the use of the navigable airspace; and assign by rule . . . the use of the navigable airspace . . . in order to insure the safety of aircraft and the efficient utilization of such airspace."¹⁸⁶

As set forth in *Delta Air Lines, Inc. v. C.A.B.*,¹⁸⁷ it had been assumed for a long time under regulation that the "FAA/DOT bears the primary responsibility for safety regulation while the CAB administers and enforces the economic provisions of the [Federal Aviation] Act."¹⁸⁸ Pursuant to its authority to regulate safety, the FAA in 1968 issued the first of a series of High-Density Traffic Airport Rules¹⁸⁹ for specified high-density airports; these rules later were expanded to include additional airports after the 1981 PATCO strike.¹⁹⁰ Since these regulations

¹⁸³ See *supra* notes 87-139 and accompanying text.

¹⁸⁴ 322 U.S. 292, 303 (1943).

¹⁸⁵ See *supra* notes 118-138 and accompanying text.

¹⁸⁶ 49 U.S.C. app. § 1348(a) (1982).

¹⁸⁷ 543 F.2d 247 (D.C. Cir. 1976).

¹⁸⁸ *Id.* at 259.

¹⁸⁹ 33 Fed. Reg. 17,896 (1968).

¹⁹⁰ See 14 C.F.R. § 93.123 (1982).

clearly sought to ensure that total traffic and slots per hour¹⁹¹ did not exceed safe capacity, they prompted little controversy as to their legality. Only when FAA/DOT attempted to regulate slot allocation among particular airlines did serious challenges to the FAA/DOT occur. In *Northwest Airlines v. Goldschmidt*,¹⁹² for example, DOT issued Special Federal Aviation Regulation 43 (SFAR/43),¹⁹³ which allocated specific slots to particular carriers. DOT issued the order in response to the deadlock of the Airline Scheduling Committee which, despite a grant of antitrust immunity,¹⁹⁴ had failed to reach agreement on slot allocations.¹⁹⁵ This deadlock purportedly had been precipitated by the demand of a new entrant, New York Air, to obtain twenty slots at peak hours to service flights between National Airport in Washington, D.C., and New York City.¹⁹⁶ Although the complaints raised several grounds for seeking judicial review of SFAR/43,¹⁹⁷ including lack of DOT jurisdiction,¹⁹⁸ and the merits of the regulation,¹⁹⁹ the critical question centered on the issue of statutory authority. The petitioners argued that the DOT allocation of slots to particular airlines constituted an economic regulation by DOT²⁰⁰ and that DOT's authority was limited to safety regulation.²⁰¹ The court conceded that SFAR/43 went beyond safety regulation, but nevertheless found the action within the bounds of the Federal Aviation Act because that act gave DOT authority not only over safety, but also over "the efficient utilization of such airspace."²⁰² The court further

¹⁹¹ See *id.*

¹⁹² 645 F.2d 1309 (8th Cir. 1982).

¹⁹³ See 14 C.F.R. pt. 93 (1982).

¹⁹⁴ *Goldschmidt*, 645 F.2d at 1312; see also CAB orders set forth *supra* note 10.

¹⁹⁵ *Goldschmidt*, 645 F.2d at 1312.

¹⁹⁶ *Id.*

¹⁹⁷ *Id.* at 1313.

¹⁹⁸ *Id.*

¹⁹⁹ *Id.*

²⁰⁰ *Id.* at 1314.

²⁰¹ *Id.*

²⁰² *Id.* at 1314-15 (citing 49 U.S.C. § 1348(c) (1982), and H.R. REP. NO. 2360, 85th Cong., 2d Sess. 2, reprinted in 1958 U.S. CODE CONG. & AD. NEWS 3741,

found that any "incidental economic impact"²⁰³ of the regulation did not make it an "economic regulation."²⁰⁴

In fact, the economic implications of *Goldschmidt* are substantial. By upholding authority to decide *which* carriers receive valuable slots, the court in effect sanctioned DOT's power to raise or lower entry barriers in the airline industry. Since a slot serves as an "operating certificate"²⁰⁵ no less than the certificates issued by the CAB during formal economic regulation, government authority to regulate the airline industry arguably has simply been transferred to the FAA, and has not been abolished by the Airline Deregulation Act. Two factors, however, lessen the economic impact of *Goldschmidt*: (1) DOT orders such as SFAR/43 and their progeny²⁰⁶ are more restricted in scope than CAB orders under formal economic regulation and generally apply only to a handful of high-density airports²⁰⁷; and (2) in exercise of its powers, DOT has made a substantial effort to accommodate the needs of new entrants.²⁰⁸

DOT orders allocating slots to particular carriers have indicated general reluctance to allocate administratively, preferring allocation by scheduling agreement.²⁰⁹ In-

3741-42). The court further cited 49 U.S.C. § 1301(29) for a definition of "navigable airspace": "airspace above the minimum altitudes of flight prescribed by regulations issued under this chapter, [including] airspace needed to insure safety in take-off and landing of aircraft." *Id.* at 1315.

²⁰³ *Id.* at 1314: "[T]he fact that SFAR 43 may have an incidental economic impact upon the air carriers operating at National [by limiting particular air carriers' operations] does not transform SFAR 43 into an economic regulation."

²⁰⁴ *Id.*: "[W]e agree with the Secretary that SFAR 43 is neither an economic regulation or a safety regulation per se, but instead a regulation of the efficient utilization of the navigable airspace of the United States."

²⁰⁵ See *supra* notes 114-115.

²⁰⁶ See *supra* notes 3, 6-10 for examples of such orders.

²⁰⁷ See 49 Fed. Reg. 8,237 (1984).

²⁰⁸ SFAR/43, for instance, allocated eighteen slots to New York Air. See *Goldschmidt*, 645 F.2d at 1313.

²⁰⁹ Former CAB Chairman Dan McKinnon stated in his concurring opinion in *Application for Discussion Authority and Prior Approval of Carrier Agreements to Integrate Schedules*, CAB Order No. 84-10-120 at 1 (Oct. 25, 1984):

The congestions created at the six airports addressed in this Order have become so severe, it is worth a minimal government involve-

deed, the FAA/DOT power to allocate administratively has been used as a club to force agreements. In FAA notice 84-14, for example, the FAA threatened "minute by minute restrictions if carriers could not agree on a voluntary [allocation]." ²¹⁰ At the same time, however, the CAB (before its demise) granted antitrust immunity for such scheduling agreements only with reluctance. As the CAB stated in its controversial order 84-10-120:

"We recognize that the discussions could have a substantial and adverse effect on competition. Yet on the basis of DOT/FAA representations about the delay problems, we found that a serious transportation need exists and that there is no reasonably available less anti-competitive solution. We concluded that an FAA imposed alternative would not be less anti-competitive because the discussions would give carriers greater flexibility and would involve a smaller regulatory intrusion into the competitive process." ²¹¹

In sum, *Goldschmidt* represents a now common failure to consider and apply economic principles in a legal decision. The court's conclusion that assignment of slots to individual carriers had only an "incidental economic impact" ²¹² was made without benefit of economic analysis on the effect of administrative slot allocation on entry control, ²¹³ individual firm demand curves, ²¹⁴ marginal and va-

ment through antitrust immunity to see if the industry can cooperatively solve the congestion problem.

The alternative could be a frustrated public that eventually could demand a return to some form of re-regulation of another government agency forcefully regulating airline actions without concern for the benefits of competition.

Neither of these alternatives are acceptable in a competitive market-place. So our approval of the voluntary schedule shifts accomplished through grant of antitrust immunity is the best temporary solution. It is imperative that the airlines cooperate effectively to avoid any additional government involvement.

Id. (emphasis added).

²¹⁰ *Id.* at 2 n.6.

²¹¹ *Id.* at 2.

²¹² *Goldschmidt*, 654 F.2d at 1314.

²¹³ For an example of an analysis that did address this factor, see FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 2, at 17:

riable cost pricing,²¹⁵ the potential for oligopolization,²¹⁶ or economic efficiency.²¹⁷

Subsequent decisions have followed the *Goldschmidt* approach. In *City of Houston v. FAA*²¹⁸ the court upheld an FAA order restricting flights to National Airport.²¹⁹ The FAA based the order not upon any criteria of economic efficiency or priority, but upon an arbitrary "distance to place-of-origin" standard. As noted above,²²⁰ the *Braniff* court held slots to be "not property," and held that "any transfer of a state or federal regulatory license or certificate is subject to the continuing jurisdiction and approval of the applicable agency."²²¹ In a similar manner, a federal court in *Eastern Airlines, Inc. v. FAA*²²² voided the sale of slots by Air Florida to Eastern, but approved the sale of

Absent government imposed restrictions, entry into airline city-pair markets is easy relative to entry into many other industries. Because there are no significant economies of scale in airline operations, carriers can enter a city-pair market at a very small size without incurring higher costs than larger incumbents. In addition, airline costs are not "sunk" in the sense that, on withdrawing from a city-pair market, an airline no longer incurs any costs associated with that market. Because sunk costs are absent, economists describe entry into airline markets as free . . . markets with these characteristics are called contestable. Such markets exhibit most of the desirable performance characteristics of competitive markets, regardless of market concentration; e.g., price is equal to the cost of providing each service.

Although unregulated airline markets would probably be reasonably contestable, FAA slot regulation has imposed entry barriers.

²¹⁴ See *id.* at 21.

²¹⁵ See *Areeda and Turner*, *supra* note 78, at 711; see generally *Eads*, *supra* note 75, at 159.

²¹⁶ See FTC REPORT OF THE AIRPORT TASK FORCE, *supra* note 4, at 16.

²¹⁷ See *id.*

²¹⁸ 679 F.2d 1184 (5th Cir. 1982). Airlines have circumvented the rule by having flights to National make a "pit stop" at Dulles. This exacerbates the economic efficiency problems caused by the distance limitation on flights to National.

²¹⁹ *Id.* at 1192.

²²⁰ See *supra* notes 86-93 and accompanying text.

²²¹ 700 F.2d at 942 (citing *LaRose v. FCC*, 494 F.2d 1145, 1149 (D.C. Cir. 1974) (radio license); *Barutha v. Prentice*, 189 F.2d 29, 31 (7th Cir.), *cert. denied*, 342 U.S. 841 (1951) (motor carrier license); *In re Rainbo Express, Inc.*, 179 F.2d 1, 5 (7th Cir.), *cert. denied sub nom.*, *Richardson v. National Acceptance Co.*, 339 U.S. 981 (1950) (ICC license); *In re Airlines Transp. Carriers, Inc.*, 129 F. Supp. 679, 683-84 (S.D. Cal. 1955) (CAB letter of registration)).

²²² 772 F.2d 1508 (11th Cir. 1985).

Air Florida as "a going concern" (which included slots) to Midway Airlines.²²³ The court rejected arguments that its decision was economic and beyond its statutory powers.²²⁴

Ironically, *Eastern* was decided on the eve of the December 1985 DOT order permitting slot sales at designated airports. It became apparent after *Eastern*, and indeed had been since *Goldschmidt*, that any allocation method based on economic principles would have to be sanctioned by the FAA/DOT. It is significant that while a host of opinions by private interests were heard by the FAA during hearings, the most forceful views included those of the DOJ,²²⁵ the Bureau of Economics, Competition, and Consumer Protection of the Federal Trade Commission,²²⁶ and economists such as former CAB Chairman Marvin

²²³ *Id.* at 1511.

²²⁴ *Id.* The court drew a distinction between buying routes and buying an airline which included routes. Thus, Midway was permitted to use the Air Florida routes upon satisfaction of two requirements:

(1) Midway must have acquired Air Florida pursuant to a court-approved plan of reorganization, or (2) have in place a court-approved and binding agreement to purchase the company guaranteed by a letter of credit for a substantial percentage of the purchase price which must be exercisable within a reasonable period. Under either condition, [this court] must be convinced that the acquisition or purchase price is at least equal to Air Florida's going concern value.

Id. at 1510.

The court also made an argument similar to the one made in *Goldschmidt*: Nevertheless, even if the objection were properly raised, it would fail. *Eastern* argues that the successorship finding made by the FAA administrator was in effect an "economic decision" that only the Department of Transportation had the authority to make. A similar argument was rejected by the Eighth Circuit in *Northwest Airlines, Inc. v. Goldschmidt*, *supra*, in which an FAA slot regulation, although it had a tangential economic impact, was not "economic regulation *per se*" but "instead a regulation of the efficient utilization of the navigable airspace of the United States." This decision represents a similar regulation of airspace—one that the FAA is clearly authorized to make.

Id. at 1512 (citations omitted).

²²⁵ See DOJ Comments, *supra* note 25, at 7. DOJ points out that the Airline Deregulation Act of 1978 "require(s) DOT/FAA to rely to the maximum extent possible on market mechanisms to create an efficient, procompetitive system for allocating source slots." *Id.*

²²⁶ See Bureau Comments, *supra* note 124.

Cohen.²²⁷ These latter views were based on economic²²⁸ rather than legal principles, and all supported a policy of allowing slot sales.

The survival of the Buy-Sell Rule now may depend upon the defeat of legislative attempts to overturn it.²²⁹ If the rule stands, it will be the first time that the economic value of an airport slot (if not its status as "property") has been recognized by a permanent order of an agency or department of the United States government.

VI. METHODS OF AIRLINE RESOURCE ALLOCATION

Once the economic value and legal status of an airport resource is determined, a survey of existing and proposed methods of airport resource allocation must be made with a view toward weighing their respective advantages and disadvantages. A valid comparison with Buy-Sell can then be made. To some extent, all allocative methods discussed herein have been tried on at least an experimental basis, and therefore each leaves some track record by which it can be judged.

Entry to the domestic airline industry may be viewed as a series of economic²³⁰ and government-imposed²³¹ ob-

²²⁷ *Allocation and Transfer of Aviation Operating Rights-Slots and Certificates: Testimony Before the Subcomm. on Aviation of the House Comm. on Public Works Transportation*, 99th Cong., 1st Sess. 7 (1985) (statement of M. Cohen, Former Chairman, CAB)[hereinafter cited as Subcommittee Testimony].

²²⁸ See *supra* notes 225-227 and accompanying text.

²²⁹ For example, The Denver Post, Dec. 17, 1985, at 13A, col. 7, reported that Senator Nancy Kassenbaum, Chairman of the Senate Commerce Committee's subcommittee on aviation, said she would "introduce legislation to side track" Buy-Sell.

²³⁰ See Bailey & Panzer, *The Contestability of Airline Markets During the Transition to Deregulation*, 44 LAW & CONTEMP. PROBS. 125, 126 (1981). The economic barriers to entry, are not, however, as high as once supposed. In fact, since as early as 1962, economists have accepted the assumption that "there are no significant economies of scale in air transport." *Id.*

²³¹ The primary government obstacles (safety requirements) are really forms of economic obstacles. The regulatory obstacles to market entry, of course, largely have been eliminated by deregulation. Nevertheless, regulatory barriers to airport access persist. Today, these obstacles take the form of high-density regulations limiting total capacity, antitrust immunity to incumbent-dominated scheduling committees, and local and proprietary restrictions.

stacles. The first barrier to entry simply involves the need to raise sufficient capital to purchase planes which meet FAA safety requirements, finance corporate organization, and hire necessary employees. This "natural" economic barrier always exists in a capitalist society. The most effective and often most insurmountable barrier, however, is acquisition of terminal space, including gates. In many cases, a carrier is not even "eligible" for a slot unless it already has a gate.²³²

Each of the allocative methods discussed below constitutes an airport resource system of rationing. Each method differs, however, in purpose, rationale, standards employed, and effect on entry control and economic efficiency. In a very real sense, each system acts as an indirect means of economic regulation of the airline industry itself.

A. Gate and Terminal Leases

At most major airports, post-deregulation demand for terminal space and gates exceeds supply.²³³ At these airports, therefore, free entry may be denied, not because of unavailability of "slots," but because of unavailability of gates and terminal space. Typically these gates and terminal facilities are the subject of long-term leases required by airport proprietors to support revenue-bond financing of these facilities.²³⁴ Baltimore/Washington airport, for example, has control over only four of twenty-seven gates

²³² Gate possession is a practical prerequisite to a slot award. Interview with Robert Coates, Airport Manager, Denver Stapleton Airport (Mar. 1986).

²³³ Traffic at O'Hare, Denver Stapleton, Detroit Metro, Los Angeles International, Philadelphia International, San Francisco International, St. Louis Lambert, and Washington National, for example, exceeded 160% of practical capacity in 1984. *Technology Seen as a Limited Solution to Easing Congestion*, AV. WEEK. & SPACE TECH., Sept. 10, 1984, at 71.

²³⁴ Since deregulation, there has been a renewed interest on the part of some airport owners and operators to regain control of their own facilities. T. James Truby, Maryland's Aviation Administrator, recently stated, "We're interested in agreements that give us as much flexibility as possible to utilize our space as efficiently as possible. We have attempted to gain control of as much of the existing terminal as possible." Shifrin, *Deregulation Bringing Airports More Interest in Own Destiny*, AV. WEEK & SPACE TECH., Nov. 12, 1984, at 174.

at its main terminal. The remaining gates are locked into long-term leases until the year 2003.²³⁵ A large number of the leases give the airline lessee total control of counter space and gates, whether used or not. In other instances, incumbent airlines own or jointly own terminal space, further restricting airport proprietors' authority to transfer underutilized space from one carrier to another.²³⁶ New entrants thus can obtain gates only in the rare case where a gate is available for lease or where a competitor will sublease the gate space, usually for an extravagant fee.²³⁷

Following deregulation, the established airlines have emphasized the hub and spoke feeder concept at major airports.²³⁸ Between 1978 and 1984, airline seats on flights from large and medium hubs increased 36% to 38%.²³⁹ This "hubbing" practice involves peak aircraft

²³⁵ *Id.* at 175.

²³⁶ *Id.* at 174. Maryland Aviation Administrator T. James Truby comments that airlines in the past have dictated what would happen at most airports preventing them from making capital improvements without general concurrence of signatory carriers to long-term agreement with the airport. . . .

Because the airlines have guaranteed to pay enough rental charges over the length of an agreement to let the airport recover construction costs and break even, the airlines with a majority use of a facility often have the power to turn down future airport construction. Some airport managers are concerned that incumbent carriers might decline to approve capital improvements that could provide space for low-cost new entrants.

Id. at 175-76.

²³⁷ *Id.* at 175:

[Airport officials] who have control of at least some gates said that the airports get more flights out of the gates they control than carrier-controlled gates. They also can offer the use of their gates at more reasonable prices than the carriers typically are willing to sublease them for. [According to T. James Truby, Maryland Aviation Administration.] "There is a tendency for incumbent carriers to want to gouge subleased tenants," a statement backed by other airport managers.

It could be possible for airline control over gates to prevent a carrier's entrance to an airport. "I don't feel airport operators can afford to, in effect, find their space held hostage by airlines which may not always be enthusiastic about accommodating a new entrant," Truby said.

²³⁸ See CAB STAFF REPORT, *supra* note 2, at 10.

²³⁹ M. BRENNER, J. LEET & E. SCHOTT, AIRLINE DEREGULATION 98 (1985).

operations at specific times to control on-line passenger connections; for this to work, maximum access to terminal gates becomes essential.

Long-term leases present a variety of potentially anti-competitive barriers to new entrants.²⁴⁰ An incumbent may sublet space to new entrants. In practice, however, incumbents usually do so only on terms which reflect their own long-term requirements, and normally only to sublessees who engage in non-competitive operations.²⁴¹ "Majority in interest" clauses in many leases present another potential barrier. These clauses give the tenant airlines the right to approve specific proposals.²⁴² Initially, these clauses were deemed desirable as a means of protecting carriers from increased fees and rents resulting from unnecessary and extravagant airport expenditures.²⁴³ The potential exists, however, for incumbents not only to block new entrants' access to existing facilities, but also to veto the construction of additional terminal facilities that might accommodate new entrants.²⁴⁴

The DOJ has taken the position that available resources should be auctioned to the highest bidder. This would occur on a staggered basis as leases expire:²⁴⁵

"[M]arket allocation . . . ensures that carriers able to meet travelers' needs at the lowest cost have access to an amount of space commensurate with their cost advantages and that space in particular locations is used by carriers for [whom] those locations are of greatest value. A market system can result in the efficient level of service to travelers and the efficient allocation of service among carriers."²⁴⁶

Although the DOJ proposal remains controversial, con-

²⁴⁰ See *supra* notes 98-117 and accompanying text.

²⁴¹ *Id.*

²⁴² See *supra* note 101 and accompanying text.

²⁴³ *Id.*

²⁴⁴ See *supra* note 236 and accompanying text.

²⁴⁵ *Separate Views of the Department of Justice as Applicable to Working Group B-Terminal Space and Gates*, in AIRPORT ACCESS REPORT, *supra* note 4, at 125.

²⁴⁶ *Id.*

siderable agreement exists that the present subleasing system at best constitutes a haphazard means of allocating terminal space.²⁴⁷ Because these leasing arrangements generally are not subject to airport review, they often culminate in high fee agreements which also may reserve the right of the lessor to recover space on short notice.²⁴⁸ The status of gate and terminal space access as a prerequisite to business for profit gives these spaces significant economic value over and above the costs of construction.

Like railroad terminals, airports provide essential facilities conducive to natural monopoly. Given this, airports must allow open access to other competing airlines upon just and reasonable terms, in fashion similar to that required for the Terminal Railroad Association of St. Louis in 1912.²⁴⁹ The federal government, while recognizing proprietary rights of airport operators,²⁵⁰ also has mandated open, non-discriminatory access to terminal facilities.²⁵¹

²⁴⁷ *Id.*

²⁴⁸ See *supra* notes 98-117 and accompanying text.

²⁴⁹ See *United States v. Terminal R.R. Ass'n of St. Louis*, 224 U.S. 383, 388-412 (1912). The Terminal Railroad Association acquired several independent terminal companies in St. Louis with the purpose of combining and operating them as a unitary system. The Supreme Court found this arrangement illegal under the Sherman Antitrust Act. The Court remanded the case to bring the association into conformity with the statute by, among other things, "providing for the admission of any existing or future railroad to joint ownership and control of the combined terminal properties, upon such just and reasonable terms as shall place such applying company upon a plane of equality in respect of benefits and burdens with the present proprietary companies." *Id.* at 411.

²⁵⁰ 49 U.S.C. app. § 1305(b) (1982). Section 1305(b)(1) provides that: nothing in subsection (a) of this section shall be construed to limit authority of any State or political subdivision thereof or any interstate agency or other political agency of two or more States as the owner or operator of an airport served by any air carrier certified by the Board to exercise its proprietary powers and rights. *Id.* at § 1305(b)(1).

²⁵¹ See, e.g., Federal Aviation Act, 49 U.S.C. app. § 1349(a) (1982). The Federal Aviation Act provides in part:

No Federal funds, other than those expended under this chapter, shall be expended, other than for military purposes (whether or not in cooperation with State or other local government agencies), for the acquisition, establishment, construction, alteration, repair, maintenance, or operation of any landing area, or for the acquisition, es-

Measuring the effect of long-term leases on entry presents difficulty. Air Transport Association members have reported that while they know of no instances where access to terminal space has been denied, new entrants may not have obtained the facilities desired at the time they were desired.²⁵² Sixty-eight percent of top airports in the United States do not have terminal space available for new entrants. Of these, half indicated impracticability of subleasing as a means of permitting access, either because of high incumbent utilization of existing space or because of exorbitant rates for subleases.²⁵³ In sum,

establishment, construction, maintenance, or operation of air navigation facilities thereon, except upon written recommendation and certification by the Secretary of Transportation that such landing area or facility is reasonably necessary for use in air commerce or in the interests of national defense. Any interested person may apply to the Secretary of Transportation, under regulations prescribed by him, for such recommendation and certification with respect to any landing area or air navigation facility proposed to be established, constructed, altered, repaired, maintained, or operated by, or in the interests of, such person. There shall be no exclusive right for the use of any landing area or air navigation facility upon which Federal funds have been expended. For purposes of the preceding sentence, the providing of services at an airport by a single fixed-based operator shall not be construed as an exclusive right if it would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and if allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport.

Id. at 1349(a).

²⁵² AIRPORT ACCESS REPORT, *supra* note 4, at 70:

Airlines formed after deregulation, described as "new entrants", and one carrier operating several years before 1978, reported substantial problems ranging from denial of access, to high cost sublease agreements with compulsory ground handling by sublessor's personnel. There were cases where space was vacant but refused, and one situation where a ramp had been vacant for 10 years and the incumbent demanded payment for the 10 years of back rent it had paid the airport before it would consider leasing the vacant ramp.

Some carriers reported that even after space was made available, they were subject to prior schedule approval by the incumbent, repeated shifting of flights to different gates within the incumbent's gate complex, failure to provide or approve adequate signs, and baggage priorities which resulted in the new entrant being routinely handled last.

²⁵³ The National Air Carriers Association (NACA) reported that during the

there can be little doubt that the long-term leasing system acts as a significant entry control, thereby defeating the objectives and purpose of the Airline Deregulation Act.

B. Local Noise Controls

As noted, the economic effects of entry control remain the same regardless of the *means* of entry control.²⁵⁴ The question of whether federal or local authorities have primary control over noise remains clouded, although local airports do appear to have primary financial liability for noise related-claims.²⁵⁵ The fact that local noise restrictions fulfill a legitimate and even vital function²⁵⁶ in no way diminishes the deleterious economic effect on airline deregulation.

A recent Airport Access Task Force concluded that noise and environmental constraints "have significantly impaired airport capacity and access."²⁵⁷ While aircraft noise at the national level has been reduced in the last ten years due to increased use of new technology aircraft,²⁵⁸ noise restrictions have placed increasingly greater restraint on airport access and capacity.²⁵⁹ Statistics show that additional noise-related restrictions were imposed on nineteen of the thirty-five largest passenger-handling air-

1960's and up to the mid-1970's, their members had been denied access to facilities on an equal basis. In many instances NACA members had been denied freedom of choice at airports and had been relegated to service as general aviation rather than as air carriers. *Id.* at 70. *See id.* at 71:

On one occasion, a regional carrier is being ground handled by a host carrier that had joint fares with other regional carriers that compete with the handled carrier to the same cities. The joint fare competing carriers receive preferred treatment by the host carrier on ticketing, baggage, and computer information. The handled carrier cannot do anything about it since they are not his employees, and incumbent carriers with vacant space refuse to sublease that space

²⁵⁴ *See supra* notes 155-175 and accompanying text.

²⁵⁵ *See supra* notes 160-161 and accompanying text.

²⁵⁶ *See* Neirenberg, *Incentives Versus Regulation: The Case for Airport Noise Charges*, 2 GEO. MASON L. REV. 167, 170-86 (1978).

²⁵⁷ AIRPORT ACCESS REPORT, *supra* note 4, at 18.

²⁵⁸ *Id.* at 33.

²⁵⁹ *Id.* at 34.

ports²⁶⁰ and that noise concerns significantly inhibited expansion of new facilities.²⁶¹ The Task Force identified sixteen different types of noise restrictions,²⁶² noting considerable debate over the effectiveness of the restrictions, many of which merely shift noise control from one airport to another.²⁶³ The Task Force also found that while single restrictions at particular airports generally do not substantially burden interstate commerce,²⁶⁴ haphazard application of local restrictions across the nation would have that effect.²⁶⁵ The Task Force concluded, therefore, that the "proliferation of such restrictions would significantly degrade the national air transportation system and frustrate competition."²⁶⁶ The Task Force proposed a more active, clearly defined federal role.²⁶⁷

The DOT disagreed with the Task Force suggestion that the FAA be given authority to preempt state and local actions to deal with airport noise.²⁶⁸ DOT concluded that a national standard might be more efficient for airlines, but might subject individual communities to more or less noise than they might tolerate otherwise.²⁶⁹ In addition, DOT proposed a system of direct charges based on aircraft noise levels, time of day of operations, and other noise factors.²⁷⁰

²⁶⁰ *Id.*

²⁶¹ *Id.*

²⁶² *Id.* at 37-39.

²⁶³ *Id.* at 39.

²⁶⁴ Noise restrictions must not be unjustly discriminatory nor arbitrary, nor may they interfere unreasonably with interstate commerce. 43 Fed. Reg. 28,417 (1978). The tendency by airport proprietors, therefore, has been to minimize restrictions which reduce economic activity, while liberally applying those which prevent growth. AIRPORT ACCESS REPORT, *supra* note 4, at 40.

²⁶⁵ AIRPORT ACCESS REPORT, *supra* note 4, at 40.

²⁶⁶ *Id.* at 45.

²⁶⁷ *Id.* The Task Force noted that in the past, fear of liability for noise-related damages caused federal agencies to refrain from asserting preemptive authority over aviation noise. Non-proprietary use restrictions at airports are federally preempted. See *supra* notes 164-166 and accompanying text. However, a clear judicial definition of non-proprietary use restrictions has not emerged.

²⁶⁸ AIRPORT ACCESS REPORT, *supra* note 4, at 54.

²⁶⁹ *Id.*

²⁷⁰ *Id.* at 55.

The Separate Comments of The Department of Justice provide a practical and workable solution to the airport noise problem.²⁷¹ Presently, airlines may ignore the true "social costs" of their operational decisions because they are not required to bear them.²⁷² Under the DOJ proposal, the cost of noise would be identified and passed on to airport users, as an alternative to imposition of federal noise restrictions.²⁷³ The imposition of fees on noise producers provides appropriate economic incentives and places the cost of noise on those who produce it.²⁷⁴ Air carriers who control noise through quieter aircraft or quiet operational procedures during a less noise-sensitive time of day would be rewarded by lower costs.²⁷⁵ Such a system recognizes noise as an economic cost much like fuel. Thus, aircraft noise which reduces the value of surrounding property involves a partial condemnation of property requiring compensation.²⁷⁶

²⁷¹ *Id.* at 62-65.

²⁷² *Id.* at 62.

²⁷³ *Id.* at 63-64.

²⁷⁴ See *supra* notes 156-174 and accompanying text.

²⁷⁵ See Nierenberg, *supra* note 256, at 184.

²⁷⁶ Generally, landowners urging inverse condemnation must show a sufficient loss of the use and enjoyment of their property to constitute a taking. *United States v. Causby*, 328 U.S. 256, 265 (1946). In *Causby*, the Supreme Court concluded,

As we have said, the flight of airplanes, which skim the surface but do not touch it, is as much an appropriation of the use of the land as a more conventional entry upon it. . . . While the owner does not in any physical manner occupy that stratum of airspace or make use of it in the conventional sense, he does use it in somewhat the same sense that space left between buildings for the purpose of light and air is used. . . . We think the landowner, as an incidence to his ownership, has a claim to it and that invasions of it are in the same category as invasions of the surface.

Id. See *Greater Westchester Homeowner's Ass'n v. City of Los Angeles*, 26 Cal. 3d 86, 603 P.2d 1329, 160 Cal. Rptr. 733 (Cal. 1979), *cert. denied*, 449 U.S. 820 (1980). In *Greater Westchester*, the court held that federal preemption, per se, did not preclude private state remedies for noise damages. *Id.*, 603 P.2d at 1335. The court noted that authorities had recognized that property owners have an inverse condemnation remedy for airport-noise-related property damages or loss. *Id.* The court then declared, "We discern no reason either in law or policy why the common law and statutory remedy of nuisance . . . should not under similar circumstances equally protect the person of the owner or the occupant." *Id.* For a review of noise litigation cases, see Bennett, *supra* note 157, at 474-83.

Statistical studies have determined, with relative precision, the effect of aircraft noise on the value of property.²⁷⁷ The most widely used measure for cumulative airport noise exposure is the Noise Exposure Forecast (NEF), a twenty-four-hour equivalent sound level that accounts for the human ear's extrasensitivity to nighttime noise.²⁷⁸ An increase in noise exposure by one NEF reduces the value of property near airports by approximately one percent.²⁷⁹ For example, property valued at \$50,000 with a noise exposure of 30 NEF would decrease in value by \$2,500 if the noise exposure increases to 35 NEF. To calculate the total cost of noise damage, the "noise depreciation" percentage must be multiplied by the number of residences affected.²⁸⁰ Noise charges could be figured by dividing the total number of flight operations into the total damage figure, but the significant annoyance factor of nighttime noise should be reflected in the NEF noise measure.²⁸¹

The easiest method for implementing a noise charge would be assessment of an aircraft type fee using average noise levels.²⁸² Measuring noise levels for all takeoffs and landings, however, would result in quieter operational procedures as well as incentives for retrofitting noise engines²⁸³ and replacing noisier planes.²⁸⁴ The technical capacity for monitoring airport noise, in order to impose

²⁷⁷ See Nierenberg, *supra* note 256, at 186 n.101.

²⁷⁸ Nelson, *A Survey of Recent Evidence*, 14 J. TRANSP. ECON. & POL. 37, 40 (1980).

²⁷⁹ Nierenberg, *supra* note 256, at 186-187.

²⁸⁰ *Id.* at 187.

²⁸¹ *Id.* Nierenberg suggests that the practical approach is to measure noise in Effective Perceived Noise Decibels (EPNdB) as applied to individual takeoffs and landings. This takes into account the effect of louder noise on more people. See *id.*

²⁸² *Id.* at 189.

²⁸³ Noise Reduction Kits ("Hush Kits") have been certified by the FAA for the older DC-8-62 engines. These kits reduce takeoff noise from 111.0 EPNdB to 101.7 EPNdB, well under the maximum 103.8 EDNdB allowed. *FAA Certificates Noise Reduction Kits for McDonnell Douglas DC-8-62s*, AV. WEEK & SPACE TECH., Oct. 14, 1985, at 49.

²⁸⁴ Nierenberg, *supra* note 256, at 189.

charges, already exists.²⁸⁵ Funds collected for noise charges either could be surrendered to the local jurisdiction or retained by airports in a fund to compensate property owners who sue to recover for property damage.²⁸⁶ Such charges would not be inconsistent with airline deregulation and would in fact promote it.²⁸⁷ Nor does it appear that noise charges conflict with existing federal statutes.²⁸⁸ Each airline, without regulatory direction or restriction, would be free to choose its own means of reducing or paying for noise. The carrier could select either quieter planes for more noise-sensitive airports, or could choose to fly during less noise-sensitive times of day.²⁸⁹ Airlines without the more modern, quieter aircraft could choose takeoff and landing procedures that work to reduce noise.²⁹⁰

Since a system of noise fees by necessity must be uniform and non-discriminatory,²⁹¹ federal (FAA) administration would be required. Far from imposing additional regulations, however, such a system would eliminate the need for federal regulations. In addition, it would elimi-

²⁸⁵ Both Washington National and Manchester (England) International Airports have had noise monitoring systems in place for years. *Id.*

²⁸⁶ DOJ Comments, AIRPORT ACCESS REPORT, *supra* note 4, at 63.

²⁸⁷ *Id.* at 64.

²⁸⁸ The Airport Acceleration Act, 49 U.S.C. app. § 1513(b) (1982) provides:

Except as provided in subsection (d) of this section, nothing in this section shall prohibit a State . . . from the levy or collection of taxes other than those enumerated in subsection (a) of this section, including property taxes, net income taxes, franchise taxes, and sales or use taxes on the sale of goods or services; and nothing in this section shall prohibit a State . . . owning or operating an airport from levying or collecting *reasonable rental charges*, landing fees, and other service charges from aircraft operators for the use of airport facilities.

(emphasis added).

²⁸⁹ A proposed regulation supported by the Airport Operators Council International will phase out the noisiest (state I) aircraft by January 1, 1988, and the next category (state II) by 1995. However, airlines remain reluctant to make huge financial investments for new aircraft without reasonable assurances that they won't be hamstrung by local airport restrictions. *Aviation Daily*, Dec. 11, 1985, at 201.

²⁹⁰ For example, aircraft could apply takeoff thrust at certain points, or on approach could maintain above-minimum altitude until glideslope intercept. *See* AIRPORT ACCESS REPORT, *supra* note 4, at 38.

²⁹¹ 43 Fed. Reg. 28,406, 28,417 (1978).

nate the need for the present patchwork of overlapping, counterproductive, and self-defeating local restrictions which not only hold very questionable value in reducing noise, but which directly impact on interstate commerce and threaten the free entry indispensable to deregulation and competition.²⁹²

C. *Scheduling Committee Agreements*

Orders issued by CAB prior to its sunset approved a multitude of agreements, including schedule adjustment agreements at various airports and agreements granting antitrust immunity under section 414 of the Federal Aviation Act.²⁹³ In many orders, the CAB recognized that such agreements and discussions "could have substantial and adverse effect on competition."²⁹⁴ DOT, however, has suggested that because such discussions were "voluntary, and because carriers did not discuss city-pairs, an adverse effect on competition was 'minimized', if not eliminated."²⁹⁵

Most airports in the country have negotiating committees open to all regularly scheduled airlines serving the

²⁹² AIRPORT ACCESS REPORT, *supra* note 4, at 48-51.

²⁹³ The Federal Aviation Act, 49 U.S.C. app. § 1384 (1982) provides that the Board may, as part of such order, exempt any person affected by such order from the operations of the "antitrust laws" set forth in [the Clayton Act] to the extent necessary to enable such person to proceed with the transaction specifically approved by the Board in such order and those transactions necessarily contemplated by such order, except that the Board may not exempt such person unless it determines that such exemption is required in the public interest. Notwithstanding the preceding sentence, on the basis of the findings required by subsection (a)(2)(A)(i) of section 412 [49 U.S.C.S. § 1482(a)(2)(A)(i)], the Board shall, as part of any order under such section which approves any contract, agreement, or request or any modification or cancellation thereof, exempt any person affected by such order from the operations of the "antitrust laws" set forth in [the Clayton Act] to the extent necessary to enable such person to proceed with the transaction specifically approved by the Board in such order and with those transactions necessarily contemplated by such order.

²⁹⁴ CAB Order No. 84-10-120 at 2 (Oct. 25, 1984); CAB Order No. 80-9-100 at 5 (Sept. 17, 1980).

²⁹⁵ CAB Order No. 84-10-120 at 8 (Oct. 25, 1984).

airport, and these committees provide the principal means for presenting the airlines' position on airport affairs.²⁹⁶ The 1983 Airport Access Report found that "negotiating committees at many airports may exert substantial influence in virtually all aspects of airport affairs and also may be subject to antitrust scrutiny."²⁹⁷ In that respect, such committees serve functions analogous to those served by "majority in interest" clauses in some airport leases.²⁹⁸

Negotiating committees provided a convenient way of allocating airport space during regulation. After deregulation, these committees continued as a convenient means of access control.²⁹⁹ As the demand for airport space has increased over the past few years, however, it has become apparent that the negotiating system is heavily weighted in favor of incumbents. This was recognized by the Airport Access Task Force, who acknowledged that "negotiating committees may tend to protect the rights of existing carriers and make the admission of new carriers to the community serving the airport more difficult."³⁰⁰

Airline scheduling committees were created in 1968³⁰¹ to allocate scarce slots among incumbent airlines at five slot-constrained airports.³⁰² These agreements were immunized from antitrust scrutiny under section 414 of the Federal Aviation Act³⁰³ and were subject to periodic review before extension.³⁰⁴ The 1981 PATCO strike required implementation of the Interim Operations Plan limiting the number of operations at additional air-

²⁹⁶ AIRPORT ACCESS REPORT, *supra* note 4, at 79.

²⁹⁷ *Id.*

²⁹⁸ *Id.* at 99.

²⁹⁹ The various airlines may exert their collective power over the airport operator to restrict new entrant access. *Id.* at 79.

³⁰⁰ *Id.* at 100.

³⁰¹ See generally CAB Order No. 68-12-11 (Dec. 3, 1968).

³⁰² This was to implement the FAA's High Density rule initially imposed on Newark, Washington National, LaGuardia, John F. Kennedy, and O'Hare. See 14 C.F.R. § 93.12 (1968).

³⁰³ See Federal Aviation Act, Pub. L. No. 85-726, 72 Stat. 731, 770 (1958) (codified as amended at 49 U.S.C. § 414 (1982)).

³⁰⁴ CAB Order No. 68-12-11 at 3 (Dec. 3, 1968).

ports.³⁰⁵ Though the PATCO-related constraints were terminated in August, 1984, Eastern requested carrier discussions to voluntarily implement control of flight schedules at six airside-congested cities.³⁰⁶ Although CAB granted the request for antitrust immunity for the proposed agreements from November 1, 1984, to March 31, 1985,³⁰⁷ the following passage from its order is revealing:

"Specifically at La Guardia, Air Atlanta asks for as short an approval period as possible. For the past six months, it has unsuccessfully attempted to obtain slots from the Airline Schedule Committee. Despite the existence of twenty-five unused slots, the committee has been unable to agree; thus, Air Atlanta's request for ten slots has not been granted. According to Air Atlanta, approval now would eliminate any incentive for the committee to meet and allocate slots. Air Atlanta also asserts that 27 slots remain unused even under the agreements submitted."³⁰⁸

In a prior order, the CAB acknowledged that "discussions could reduce competition substantially," but approved the agreements on the ground that "serious transportation needs and public benefits, combined with the lack of reasonably available, less anti-competitive alternatives, justifies their approval."³⁰⁹

Scheduling agreements were a viable means of allocating airport slots during economic regulation. CAB policy prevented entry by new firms, so there existed a lesser need for rationing. The anti-competitive effects of such agreements also posed little concern since CAB already had a policy of preventing any competition from new entrants.³¹⁰ Under economic deregulation, however, scheduling agreements conflict with the policies and objectives

³⁰⁵ See generally CAB Order No. 81-10-162 (Oct. 27, 1981).

³⁰⁶ CAB Order No. 84-10-120 at 9 (Oct. 25, 1984). These included Denver, Atlanta, O'Hare, JFK, LaGuardia, and Newark. *Id.*

³⁰⁷ *Id.* at 9. The CAB, however, promised review if there was evidence that passengers were not suffering delays which would justify such approval. *Id.*

³⁰⁸ *Id.* at 4-5.

³⁰⁹ CAB Order No. 84-8-129 at 9 (Aug. 31, 1984).

³¹⁰ See Hardaway, *supra* note 39, at 134-51.

of the Airline Deregulation Act.³¹¹ Although allowing airlines to collude on slots does not stifle competition to the same degree as price-fixing, such collusion prevents free entry in the long run.

D. Lotteries

Since scheduling agreements require unanimity,³¹² a problem arises when the participants reach deadlock.³¹³ Although the ATA pledged to develop an effective deadlock-breaking mechanism in 1981,³¹⁴ to date that has not occurred with the trunk carriers.³¹⁵ On June 7, 1984, the FAA proposed a deadlock-breaking mechanism.³¹⁶ Under that proposal, incumbents would maintain previously allocated slots.³¹⁷ After being notified of deadlock and after essential air service requirements were fulfilled, the FAA would determine the order of slot selection by a random lottery.³¹⁸ New entrants would be eligible, but only for 15% of each classification of slots.³¹⁹ Further, slots not used within sixty days of the lottery by existing carriers or new entrants would be lost.³²⁰ The FAA Buy-Sell Rule now provides for withdrawal of up to 5% of air carrier slots for purposes of redistribution by lottery at high-density airports.³²¹

Some regional and commuter agreements already have purported to accommodate new entry demand by provid-

³¹¹ In 1982, DOJ asserted that scheduling agreements were anti competitive. *See* 47 Fed. Reg. 29,814 (1982). Proponents of market force distribution of slots maintain that such agreements present an insuperable barrier to new entrants. *Id.* at 29,814-15.

³¹² *See* CAB Order No. 83-6-43 at 10 (June 3, 1983).

³¹³ For example, the inability of scheduling committees to agree to slot allocation simply leaves slots in the same hands. *See* Ott, *U.S. Reviews Airport Slot Policy*, *AV. WEEK & SPACE TECH.*, Apr. 16, 1984, at 32.

³¹⁴ CAB Order No. 81-10-162 at 4 (Oct. 27, 1981).

³¹⁵ *See generally* Subcommittee Testimony, *supra* note 227.

³¹⁶ *See* 49 Fed. Reg. 23,806 (1984).

³¹⁷ *See id.* at 23,807.

³¹⁸ *See id.*

³¹⁹ *See id.* at 23,808.

³²⁰ *Id.*

³²¹ *See* 14 C.F.R. § 93 (1985).

ing a deadlock lottery when voluntary schedule adjustments cannot be made.³²² In practice, however, these lotteries provide new entrants with only an arbitrarily set, and usually small number, of slots.³²³ While CAB Order 84-6-17 approved, for an interim period, three scheduling committee agreements, the order also recognized that

the agreements are ultimately likely to perpetuate existing slot allocations. In the event of a deadlock, there would be no allocation of slots at JFK, and the lotteries at ORD [Chicago] and LGA [LaGuardia] cover only newly created slots. This is "grandfathering," a practice we condemned under section 412 as a substantially anticompetitive practice.³²⁴

In fact, this flawed grandfathering approach could act to encourage incumbents to reach deadlocks, thereby limiting airport expansion and inflating the value of airport slots.³²⁵

Even if lotteries allocated existing utilized slots as well as the more limited number of "available" slots,³²⁶ the author submits that such a method of airport space allocation would be economically inefficient and inconsistent with airline deregulation. Such a lottery presumably would give the appearance of offering new entrants a chance to obtain a slot. It was not the purpose of airline deregulation, however, to grant economic favors, even by chance, to incumbents or new entrants. Deregulation instead seeks to allow development of an economic environment in which efficiency, good service, and low fares produce economic rewards, while inefficiency, poor service, and high fees subject an airline to economic punish-

³²² See, e.g., CAB Order No. 84-6-17 at 1 (June 8, 1984); CAB Order No. 83-6-43 at 1-3 (June 15, 1983).

³²³ See CAB Order No. 84-6-17 at 1 (June 8, 1984).

³²⁴ CAB Order No. 84-6-17 at 8 (June 8, 1984).

³²⁵ See Subcommittee Testimony, *supra* note 227.

³²⁶ The slots would either be unused or become available as a result of the "use it or lose it" provision, a provision which the CAB found was not adverse to the public interest. CAB Order No. 84-6-17 at 9 (June 8, 1984).

ment.³²⁷ The lottery system, regardless of scope, fails utterly in this task. Such a system allocates economically valuable airport space not on the basis of efficiency or service, but by the roll of the dice. This seems even less rational than previous CAB policy under regulation, which at least paid lip service to awarding slots or routes on a "public interest" basis, if not an efficiency basis.³²⁸

When the question of lotteries arises, it brings to mind the lottery system of military punishment used during World War I as dramatized in Stanley Kubrick's film, *Paths of Glory*. In that film, several thousand soldiers refused to obey a general staff order to make a suicidal charge against entrenched enemy positions. Since the military authorities could not realistically execute several thousand soldiers for disobedience, the military held a lottery to select three unlucky individual soldiers for execution.

Lotteries for airport access are equally irrational and unfair. The CAB expressed hope that discussions among airlines would be productive, so that airlines could avoid the randomness of the deadlock-breaking mechanism.³²⁹ Nevertheless, lotteries have been deemed an essential safety valve for situations in which scheduling committee members with unequal bargaining positions cannot agree on a schedule.³³⁰ The sole merit of a lottery system, however, lies in its equally irrational treatment of all applicants, precluding any one carrier from a deliberate discrimination argument. In light of the millions of dollars wasted each year due to misallocation of airport resources, such a policy hardly seems a fitting premise for allocation by lottery.

³²⁷ The DOT, for example, has rejected the broad use of lotteries as too random and too disruptive. See Ott, *Economy Council Pushes Sale of Busy Airport Landing Slots*, AV. WEEK & SPACE TECH., Feb. 11, 1985, at 39.

³²⁸ See *supra* note 51 and accompanying text.

³²⁹ CAB Order No. 83-6-43 at 13 (June 3, 1983).

³³⁰ Even CAB once stated that, despite reservations, it would not intervene as long as all carriers had a chance of getting slots through a lottery. CAB Order No. 84-8-24 at 5 (Aug. 6, 1984).

E. *"First Come, First Served"*

Some airports apply the general policy of "first come, first served" to allocate slots. At Stapleton Airport in Denver, for example, aircraft purportedly merely wait their turn in line to obtain runway space.³³¹ In fact and as already noted, however, the limiting factor at such airports is not "slots" per se but, more particularly, gates and terminal space.³³² In other words, without possession of a gate, an airline cannot "get in line."

In any case, a "first come, first served" system does not offer an economically efficient means of allocating slots. To grant a valuable slot based upon who has wasted the most time in line proves even less rational than a chance-based lottery system for slot allocation. In fact, a time-priority system actually encourages the inefficient use of time and facilities, not to mention fuel.³³³ Stapleton Airport officials estimated that delays under such a system cost airlines \$104 million in 1985 alone.³³⁴ Furthermore, this method does nothing to alleviate the peak-hour bunching problem at airside-congested airports.

F. *Administrative Regulation*

The legal basis for administrative allocation of airport slots already has been discussed.³³⁵ Under economic regulation, CAB substituted the views of its members for those of the airlines and the public. In the same manner, administrative regulation and allocation of airport slots involves substitution of a bureaucratic "public interest" determination for the actual views of the public and air-

³³¹ Under this method, when the ceiling has been reached for each hour, planes are either stacked to the next hour or diverted to other airports. CAB Order No. 80-9-148 at 7 (Sept. 24, 1980).

³³² See *supra* notes 177-183 and accompanying text.

³³³ A B-727 burns approximately 80 pounds (12 gallons) of fuel per minute waiting for takeoff at a cost of \$9.75 per minute. Interview with Bruce Burrows, Training/Check Manager, United Airlines Training Center, Denver, Colo. (Dec. 17, 1985).

³³⁴ Rocky Mountain News, Mar. 6, 1986, at 7, col. 4.

³³⁵ See *supra* notes 184-229 and accompanying text.

lines as manifested by what they buy and sell in the marketplace.³³⁶ Administrative regulation also involves the cumbersome process of administrative hearings and proceedings that further inhibits the free market as it did under the years of CAB regulation. Moreover, neither FAA, DOT, nor the carriers presently seek or desire such regulation.³³⁷ Indeed, evidence suggests that several airport scheduling committee agreements were reached only because many members believed the alternative was administrative regulation.³³⁸ In Order 84-8-129, the CAB stated that "government interference with carrier scheduling must be kept at a minimum."³³⁹ In a subsequent order, the CAB repeated that position and further espoused the view that FAA regulation of carrier schedules did indeed adversely affect competition.³⁴⁰ In a concurring opinion, CAB Chairman Dan McKinnon stated that congestion at six airports had become so severe that anti-trust immunity would be needed to see if the carriers could voluntarily cooperate to solve the problem through scheduling agreements.³⁴¹ The government granted anti-trust immunity only because "[t]he alternative could be a frustrated public that eventually could demand a return to some form of re-regulation or another government agency forcefully regulating airline actions without concern for the benefits of competition."³⁴² In sum, administrative regulation of airport slots offers the least viable, and certainly least palatable, method of slot allocation.

G. *Variable Landing Fees*

Airports, both domestic and international,³⁴³ impose a

³³⁶ Hardaway, *supra* note 39, at 134-51.

³³⁷ See 33 Fed. Reg. 17,896 (1968).

³³⁸ See, e.g., CAB Order No. 68-12-11 at 4 (Dec. 3, 1968).

³³⁹ CAB Order No. 84-8-129 at 11 (Aug. 31, 1984).

³⁴⁰ CAB Order No. 84-10-120 at 8 (Oct. 25, 1984).

³⁴¹ *Id.* at 10.

³⁴² *Id.*

³⁴³ For a discussion of differential and peak charges at European airports, see generally C. Phillips (Chief Economist, Finance British Airport Authority), *Differential and Peak Charges*, AOCI, International Airport Economic Subcomm. Working

wide variety of landing fees,³⁴⁴ property taxes,³⁴⁵ noise charges,³⁴⁶ and service charges.³⁴⁷ The kind of charge imposed depends largely upon political factors existing at each airport. In *Evansville-Vanderburgh Airport Authority District v. Delta Airlines*,³⁴⁸ for example, a local airport in Indiana charged a flat fee based on passengers enplaned.³⁴⁹ A local airport in New Hampshire charged a fee based on the number of passengers enplaning on aircraft of specific weights.³⁵⁰ Logan International Airport imposed noise charges based on decibel levels and flight times.³⁵¹ A survey of noise charges at twenty-three major airports shows charges per operation ranging from .82 cents in Portland to \$196.67 at Laguardia.³⁵² Airports have charged a flat passenger embarkation fee,³⁵³ a flat fee on aircraft movements,³⁵⁴ a fee based on the weight of aircraft,³⁵⁵ a fee based on distance,³⁵⁶ and fees based on time of landing and departure.³⁵⁷

Fees at domestic airports have been restrained by the Airport and Airway Improvement Act of 1982.³⁵⁸ This act

Paper; Nov. 26-28, 1984; C. Phillips, *Towards Cost Relating Pricing*, in Polytechnic of Central London Airport Economic and Finance Short Course; Nierenberg, *supra* note 256, at 97; S. Dempsey, *Deregulation, Discrimination and Dispute Resolution in International Aviation: Turbulence in the Open Skies* (1986) (unpublished monograph).

³⁴⁴ See Levine, *supra* note 3, at 90-102.

³⁴⁵ See, e.g., *Northwest Airlines v. Minnesota*, 322 U.S. 292 (1943).

³⁴⁶ Nierenberg, *supra* note 256, at 185, identifies three types of noise charges: (1) revenue-generating charges; (2) compliance-related charges; and (3) damage-related charges.

³⁴⁷ See *Evansville-Vanderburgh Airport Authority Dist. v. Delta Airlines*, 405 U.S. 707, 709 (1972).

³⁴⁸ 405 U.S. 707 (1972).

³⁴⁹ *Id.* at 709.

³⁵⁰ *Id.* at 710.

³⁵¹ Nierenberg, *supra* note 256, at 187.

³⁵² *Id.* at 207.

³⁵³ *Evansville*, 405 U.S. at 710.

³⁵⁴ See, e.g., *id.*; *Northwest Airlines v. Joint City-County Airport Board*, 154 Mont. 352, 463 P.2d 470 (1979); *Allegheny Airlines v. Sills*, 110 N.J. Super. 54, 264 A.2d 268 (1970).

³⁵⁵ See Nierenberg, *supra* note 256, at 97.

³⁵⁶ *Id.*

³⁵⁷ See Nierenberg, *supra* note 256, at 168.

³⁵⁸ 49 U.S.C. app. §§ 2201-25 (1982).

requires, as a precondition to approval of an airport development project, that the airport be "administered in a manner [consistent with the goals] of fostering competition, preventing unfair methods of competition in air transportation, maintaining essential air transportation, and preventing unjust and discriminatory practices."³⁵⁹ Airport fees also are subject to Commerce Clause restraints as set forth by the United States Supreme Court in *Evansville*.³⁶⁰ Specifically, airport fees must not discriminate between interstate and intrastate flights³⁶¹ and must reflect "a fair, if imperfect, approximation of the use of facilities for whose benefits they are imposed."³⁶² Further, fees must "not be excessive in relation to costs incurred by the taxing authorities."³⁶³ The fact that airport fees meet constitutional standards, however, does not insure that such fees result in optimum allocation. Indeed, an optimum method may run afoul of one or more of the *Evansville* requirements.³⁶⁴

Economic studies severely criticize the present system of landing fees based on a flat rate per landing,³⁶⁵ aircraft weight,³⁶⁶ passenger embarkation,³⁶⁷ type of aircraft,³⁶⁸ or fuel flowage.³⁶⁹ In his groundbreaking article, *Landing*

³⁵⁹ *Id.* at § 2202(a)(5).

³⁶⁰ *Evansville*, 405 U.S. at 717. See *infra* notes 361-363 and accompanying text.

³⁶¹ *Id.* (citing *Nippert v. Richmond*, 327 U.S. 416 (1946)).

³⁶² *Id.*

³⁶³ *Id.* No violation of the Commerce Clause occurs if the airport fees imposed are "reasonable and are fixed according to some uniform, fair and practical standard." *Id.* at 713.

³⁶⁴ The problem with the *Evansville* requirements, from an economic standpoint, is that they relate only to the cost side of the equation. The requirements fail to consider that an optimum price for slots and gates must reflect their scarcity value. A price which reflects scarcity value may appear excessive under the *Evansville* standards. See *supra* note 112.

³⁶⁵ Levine, *supra* note 3, at 102 n.6; see generally Steiner, *Peak Loads and Efficient Pricing*, 71 Q.J. ECON. 585 (1957); Grampp, *An Economic Remedy for Airport Congestion: The Case for Flexible Pricing*, 9 BUS. HORIZONS 21 (1968).

³⁶⁶ Levine, *supra* note 3, at 90.

³⁶⁷ *Id.* at 101.

³⁶⁸ *Id.* at 90.

³⁶⁹ *Id.* at 94.

Fees and the Airport Congestion Problem,³⁷⁰ Michael Levine summed up the economic inefficiencies of the common types of landing fees. For example, fees based on weight cause

maximizing airline[s] [to] schedul[e] as many flights as possible at peak hours. Since the airline will experience the average, rather than the marginal, delay, measuring the cost to the airline of adding the schedule against the incremental revenue will yield a more favorable result than would be the case if the costs to all users were taken into account.³⁷¹

The flat rate system

does not allow those airlines who prefer to schedule tightly and increase aircraft utilization the opportunity to use the savings possible from this method to buy the delay-free operations which are a precondition to full implementation of that policy. It delays equally long-haul passengers who have few substitutes for air travel and short-haul passengers who have many.³⁷²

Fuel flowage fees

encourage the most frivolous airport uses: the recreational flight for lunch or a cup of coffee, the short trip to pick up or drop off a passenger who could have made the trip by surface, the instructional approach and landing to give the student a taste of operating at a busy airport.³⁷³

³⁷⁰ *Id.*; see also Kahn, *Raise the Cost of Landing at Peak Hours*, N.Y. Times, Sept. 9, 1984, at 2F, col. 2.

³⁷¹ Levine, *supra* note 3, at 91.

³⁷² *Id.* at 92.

³⁷³ *Id.* at 94. Levine notes that embarkation fees do not measure with any precision the use made of the airport's landing area by the aircraft in which the passengers are carried. They result in smaller aggregate charges being assessed against unpopular flights than against popular ones—precisely the opposite of the effect desired at peak hours when capacity is of prime value.

The second unfortunate effect, which follows from the first, is that the cross-subsidy of landing areas from revenues extracted from terminal concessions results in distortions of demand which in turn produce investment mistakes. Lowering prices on landing areas creates a higher demand for those facilities—demand which, as we have seen, does not necessarily produce increased terminal revenues to finance the facilities required to accommodate it. Using passengers

Levine, like other economists, recognizes that landing fees can serve far higher purposes than raising revenue; namely, reducing congestion and increasing economic efficiency. Levine recognizes, however, that landing fees necessary to accomplish these purposes "may require higher-than-cost prices."³⁷⁴ For this reason, such fees must be scrutinized closely in light of *Evansville*. The experience of the New York Port Authority illustrates the capacity of landing fees to reduce congestion. In 1968, the latter authority imposed higher fees on peak-hour general aviation use of runways, resulting in a 30% decline in use of high-peak slots.³⁷⁵

H. Slot Exchanges, Sales, and Auctions

Under Special Federal Aviation Regulations 44 through 44-3,³⁷⁶ the FAA for some time permitted slot exchanges on a one-for-one basis. In the FAA's view, slot exchanges increase scheduling flexibility among carriers, but still do not adequately meet scheduling needs. As stated by the FTC at a hearing before the FAA: "[E]lementary economic principles demonstrate . . . that an exchange system that permits only barter is inferior to one that allows

as a "meter" creates incentives for frequent scheduling of lightly-loaded aircraft. . . .

Finally, by raising the prices of concession-supplied services, this policy deprives consumers of the full utility they might derive from using them at competitive prices.

Id. at 101.

³⁷⁴ *Id.* at 88. As Levine explains:

In such instances, there is a question (partially political rather than economic in nature) as to who should capture the profit. But using this criterion it is less than obvious that airlines are more worthy beneficiaries than taxpayers at large, especially where giving the profit to airlines in the form of reduced landing fees may defeat the very purpose of extracting it; that is, to allocate the use of scarce airport resources. In any case, the profit should be only as large as is necessary to accomplish the rationing and the purpose which engendered it should not be vitiated by the way in which it is distributed.

Id.

³⁷⁵ *Id.* at 90.

³⁷⁶ See *supra* note 7 and accompanying text.

both barter and cash sales."³⁷⁷

As a result, in May of 1982, the FAA approved a six-week experimental program permitting slot sales.³⁷⁸ Unfortunately, the short duration of this program made it impossible to draw any firm conclusions. Several hundred slots did trade hands during this period.³⁷⁹ New entrants, such as People Express, were able to purchase a large number of slots at National Airport, from which they previously had been excluded.³⁸⁰ Indeed, the success of People Express in obtaining slots so pleased that airline that it since has testified vigorously for Buy-Sell at subsequent hearings on slot allocation procedures.³⁸¹ People Express believes that the only way to achieve access to additional slots is through a slot sale program, and the airline credits the experimental program with allowing it to continue operating under the high-density restrictions imposed in the aftermath of the PATCO strike. The People Express experience exemplifies the fact that inferior economic power alone will not prevent acquisition of slots.

In short, the little data available from the 1982 slot sale experiment is positive: at least one new entrant obtained access and was not outbid by firms with far greater assets. The experience from gate subleasing, however, offers less encouragement and suggests that Buy-Sell may provide greater anti-competitive incentives than have been recognized by FAA.³⁸²

³⁷⁷ FTC REPORT OF THE AIR FORCE TASK FORCE, *supra* note 4, at 3.

³⁷⁸ See 47 Fed. Reg. 25,508 (1982).

³⁷⁹ AIRPORT ACCESS REPORT, *supra* note 4, at 7.

³⁸⁰ *Id.*

³⁸¹ *Id.*

³⁸² It should be noted that Buy-Sell differs from the mere auction of slots. Auctions would begin the allocation process at base zero, retrieving all slots and then selling them to the highest bidder. Buy-Sell "grandfathers" existing slots and merely permits existing slot owners to sell as they see fit. The FAA has rejected slot auction proposals on several grounds, including unresolved legal questions and the possibility of service disruptions during transition. See 50 Fed. Reg. 52,183-86 (1985).

VII. ANTITRUST ENFORCEMENT UNDER SLOT SALES

The FAA Comments to the Buy-Sell Rule confidently state, "[T]he use-or-lose provisions of the rule, in conjunction with existing antitrust laws, will be sufficient to deter anti-competitive behavior."³⁸³ However, the comments do not specify which antitrust provision(s) apply.

Section 2 of the Sherman Act provides that "[e]very person who shall monopolize . . . any part of the trade or commerce . . . shall be punished"³⁸⁴ In early 1985, the DOJ set forth "Vertical Restraints Guidelines,"³⁸⁵ explaining DOJ enforcement policy under this section:

[V]ertical restraints — particularly, exclusive dealing — may have the effect of excluding rivals by prohibitively raising either their cost of a vital input or their cost of distribution. . . . Alternatively, a firm . . . may enter into long-term exclusive contracts for the supply of a vital input, leaving little or no present production of the input for new entrants or fringe firms. In the short run, a rival firm would be unable to obtain a sufficient amount of the input to allow it to operate³⁸⁶

The DOJ guidelines set forth three criteria for determining whether or not anti-competitive exclusion exists:

- (1) The "nonforeclosed market" is concentrated and leading firms in the market use the restraints;
- (2) the firms subject to the restraints control a large share of the "foreclosed market"; and
- (3) entry into the "foreclosed market" is difficult.³⁸⁷

Although written before Buy-Sell, these guidelines appear applicable to circumstances that might arise under that Rule. Most case law under section 2 of the Sherman Act is not precisely on point. Several cases, however, provide a possible basis for antitrust enforcement against anti-competitive behavior during Buy-Sell.

³⁸³ *Id.* at 52,186.

³⁸⁴ 15 U.S.C. § 2 (1982).

³⁸⁵ 50 Fed. Reg. 6,263 (1985).

³⁸⁶ *Id.* at 6,267.

³⁸⁷ *Id.*

In the leading case of *United States v. Terminal Railroad Association of St. Louis*³⁸⁸ the Supreme Court struck down a scheme by which large railroads took control of a central railroad terminal in St. Louis and excluded competitors from its use.³⁸⁹ Likewise, in *Otter Tail Power Co. v. United States*³⁹⁰ the Supreme Court found a violation of the Sherman Act when a dominant power company used its economic power to "foreclose potential entrants into the retail arena from obtaining electric power from outside sources of supply."³⁹¹ In *In re Carterfone*,³⁹² the FCC held that AT&T could prevent connection of competitive lines to its system only if the devices would cause harm to the system.³⁹³

The fact that some antitrust precedent exists for action against carriers using Buy-Sell for anti-competitive purposes, however, does not mean that a practical method of enforcement easily could be devised. The airline industry stands distinct in two particulars: (1) demand for the industry's product is highly elastic³⁹⁴ (that is, a 1% reduction in fares likely will result in a greater than 1% increase in demand)³⁹⁵; and (2) the industry's product is highly perishable, making the industry especially sensitive to price competition by even relatively small competitors.³⁹⁶ Even temporary exclusion from a market can have immediate and devastating effects. A firm may cease to exist long before antitrust protection becomes available.

³⁸⁸ 224 U.S. 383 (1912). See *supra* note 249 for a summary of the facts and holding in the *St. Louis Terminal* case.

³⁸⁹ 224 U.S. at 399, 401.

³⁹⁰ 410 U.S. 366 (1973).

³⁹¹ *Id.* at 377.

³⁹² 13 F.C.C. 2d 420 (1968).

³⁹³ *Id.* at 424.

³⁹⁴ See S. BREYER, *supra* note 61, at 205.

³⁹⁵ P. SAMUELSON, *supra* note 60, at 359-64.

³⁹⁶ See CAB STAFF REPORT, *supra* note 2, at 29 n.17:

Low, unrestricted fares were available only in a limited number of markets in 1979 and the beginning of 1980. At that time, these low fares often resulted from the entry of another carrier. For example, the fare in Denver-Salt Lake fell by 62 percent when Texas International entered the market.

In addition, difficult questions will arise in determining whether an antitrust violation has occurred. For example, there appears no easy answer as to whether a large carrier, who operates a flight from a particular slot at a very marginal profit because of high labor costs, engages in anti-competitive conduct by simply refusing to sell at any price to a small competitor, who because of its lower costs can reap a higher profit from use of the slot, but whose lower fares threaten to take passengers from the large carriers. In other words, could a large carrier keep a "grandfathered" slot for which it has made a considerable investment over the years, in order to flatten its own individual demand curve, and thus reap an oligopoly profit? If not, how would such a motive be proven, and what standards would apply? Areeda and Turner point out that oligopoly pricing below marginal costs may be justified and not predatory under certain circumstances, such as where a competitive response is required or where the price is set for promotional purposes.³⁹⁷ For this reason, these authors suggest that "extreme care be taken" in formulating antitrust rules on predatory pricing.³⁹⁸ The same also can be said with regard to formulation of antitrust rules under Buy-Sell. Ideally, a Buy-Sell system should incorporate an internal market-based mechanism to deter anti competitive behavior without sole resort to antitrust law enforcement.

VIII. CONCLUSION

Existing methods of airport resource allocation are unsatisfactory. Administrative regulation has proven cumbersome and inefficient. Scheduling committees inhibit free entry, and discourage competition and efficiency. Lotteries are irrational, inefficient and unfair. "First come, first served" results in waste and misallocation of

³⁹⁷ Areeda & Turner, *supra* note 137, at 705-15.

³⁹⁸ *Id.* at 699.

resources. Only variable landing fees and Buy-Sell promise to allocate resources at an efficient level.

The case for variable landing fees has been persuasively documented.³⁹⁹ Such fees have the added advantage of providing a working solution to the airport noise problem, since noise abatement incentives can be built into the fees.⁴⁰⁰ For example, air carriers who control noise by operating quieter aircraft or operating during less noise-sensitive times of day can be rewarded by lower fees. Air carriers who choose to operate noisy aircraft or choose to operate at noise-sensitive times would be subject to a higher fee. That part of a fee based on noise could be placed in a compensation fund for surrounding landowners who suffer actual loss in value to their property. Such a system recognizes noise control as an economic cost.

Variable fees also can provide economic incentives to use low-peak slots, thus eliminating congestion and reducing costly delays. Negative fees (subsidies) might even be awarded to carriers who use extremely low-peak slots. Fees for high-peak slots simply would be raised to the point at which carriers willing to pay the fees equal the number of slots available. Thus, variable fees may be used to ration slots to those carriers who value the slots most highly. A slot used by a jumbo jet with 500 people aboard, for example, will command a higher fee than a recreational flier in a Piper Cub would be willing to pay. A market mechanism that gives preference to the interests of 500 people over one person reflects greater allocative efficiency. (If political pressures demand preference for general aviation, reduced fees or subsidies could benefit general aviation or commuters.)

To avoid the possibility that some carriers might choose to cross-subsidize high-peak flights by refusing to include the higher landing fees in ticket prices, the landing fees could be imposed directly on passengers as a high-peak

³⁹⁹ See generally AIRPORT ACCESS REPORT, *supra* note 4, at 62. Nierenberg, *supra* note 256; Kahn, *supra* note 370.

⁴⁰⁰ AIRPORT ACCESS REPORT, *supra* note 4, at 62.

surcharge. In this manner, a business passenger who values a high-peak departure time could obtain his preferred flight, but would have to pay for it. The recreational passenger would get a less desirable departure time, but would pay a lower price. In this manner, direct as well as indirect economic pressure would prompt carriers to shift lower valued flights to low-peak slots.

Variable landing fees have two important limitations, however: (1) they do nothing to solve the problem of airport access to terminal space and gates, and thus they serve only to even out high-and low-peak usage by carriers already possessing terminal and gate space; and (2) they do not allow for long-term scheduling guarantees. But Buy-Sell also has two critical weaknesses: (1) It creates an economic incentive for large carriers to outbid small carriers for anti-competitive purposes⁴⁰¹; and (2) like variable fees, Buy-Sell fails to address free entry to terminal space and gates.

The first weakness of Buy-Sell can be cured by assessing a variable landing fee per operation to each slot available for "purchase." A high landing fee will make an otherwise prime slot less desirable, thereby reducing the anti-competitive incentive to purchase it. A high landing fee also can serve to offset the "oligopoly surplus" that the large carrier otherwise would earn while in possession of the slot.

To ensure free entry, a certain percentage of slots should be recalled for redistribution. Redistribution of these slots will flatten the slope of the demand curve for larger firms, thus lessening the anti-competitive incentive to corner a slot. The FAA Buy-Sell Rule attempts to accomplish this result by lottery.⁴⁰² As noted, however, a lottery offers an inefficient means of initial allocation since it makes no distinction between carriers who place different values on the slot. Of course, once slot allocation occurs (by whatever means), a slot after-market eventually

⁴⁰¹ See *supra* notes 98-140 and accompanying text.

⁴⁰² See 50 Fed. Reg. 52,180 at 52,193 (1985).

will put slots to work where they will do the most good. But this does not justify allocation by chance in the first instance.

The author submits that a system of efficiency bidding provides a far better means of distributing available slots.⁴⁰³ In such a bidding system, a certain percentage of slots (say 5% of each incumbents' slots, plus any other slots made available by new construction or returns to the slot pool) could be made available for auction on a quarterly basis. Unlike the DOJ system of selling to the carrier offering the most cash, or the Buy-Sell system of distribution by lottery, an efficiency bidding system would allocate slots to the carrier offering to provide air service to the public for the lowest cost. A formula could be devised to incorporate a fare/mileage equivalency table, equating long-and short-haul fares, so that fare bids for long-haul routes would not be unfairly compared to fare bids for short-haul routes.⁴⁰⁴ Bid winners would receive a slot for the time periods indicated in the bid or for a predetermined length of time (perhaps six months or a year), after which the slot would revert to the original owner if previously owned or to the slot pool if not previously owned.⁴⁰⁵ Remaining time periods available for the slot would go to the next highest bidder or would be returned to the auction pool. If the winning bidder raises the fare during the period awarded, any competitor who previously entered a bid could, within one week of the fare increase, demand that the slot be returned to the auction pool. Fares could be lowered, of course, without consequence. A winning bidder could change the route indicated without penalty as long as the fare for the new route was less than the fare

⁴⁰³ See Hardaway, *Airport Slot Allocation in a Deregulated Industry: The Quest for a "Reasonably Available, Least Anticompetitive" Alternative Solution*, in AVIATION HEARINGS, *supra* note 4, at 175.

⁴⁰⁴ Such a formula also might take into account past public demand for the route proposed in the bid, as indicated by objective statistical data. But the formula should *not* reflect the *formulator's* opinion as to what routes should be flown.

⁴⁰⁵ Slots obtained through condemnation procedures could, of course, simply revert to the slot pool and not to the original owner.

for the old route under the formula's fare/mileage equivalency table. Winning bidders would be required to pay the prevailing variable fee for the slot awarded. All bidders, of course, would be required to meet FAA safety, capital, and other requirements presently needed for certification.

The danger always exists, of course, that any devised formula under such a system could be misused to reinstate, in disguised form, administrative regulation. A formula incorporating government authorities' views and opinions as to routes or service to small communities, for example, could be used to achieve such a result.⁴⁰⁶ The system proposed here, however, would utilize a formula incorporating a factor already voted upon by consumers under economic deregulation, namely price.

The success of a bid system, of course, would depend upon the establishment of a non-discriminatory and anonymous bidding system. Even if formulators insisted on including factors such as service to small communities, the system proposed still provides a reasonably available and least anti-competitive method of allocating recaptured slots.

While true that some administrative input would be required in devising the initial formula and overseeing the bidding system, efficiency bidding otherwise would be as self-regulating and free from the need for government interference as Buy-Sell itself. Based on objective data and criteria, an efficiency bidding system would "mirror" the free market and provide the same economic incentives that exist in the airline industry as a whole under deregulation. The author recognizes that no efficiency bidding formula would be able to distinguish between levels of in-flight service. It is submitted, however, that such a means of distributing a certain percentage of recalled slots still would be preferable to the indiscriminate allocation of a

⁴⁰⁶ Indeed, administrators under regulation accomplished similar subjective results while purporting to apply "public interest" formulae in awarding routes. See *supra* note 62 and accompanying text.

lottery. Unlike lotteries, a bid system avoids the likelihood of allocation to the very carriers for whom Buy-Sell creates an anti-competitive incentive.

The second weakness of Buy-Sell, failure to address gate and terminal space free-entry problems, can be cured only by: (1) expansion of airport facilities; (2) condemnation of existing terminal space or leasehold interests for redistribution purposes (with fair compensation paid for the value of the property seized); and (3) application of Buy-Sell to terminal space. Gates would be treated as slots or as paired with slots (*i.e.*, only for particular time periods), and could be sold or leased only as slots. Variable use fees then should be imposed according to the high-or low-peak use of the gate. As with slots, a certain percentage of gate space would be recalled for distribution by efficiency bidding.

The inefficiencies in airport allocating methods cost airlines and consumers billions of dollars each year. Buy-Sell will go far to reduce this waste. Integration of variable fees, efficiency bidding, and application of Buy-Sell to terminal space and gates will further reduce waste and increase economic efficiency.

