3

Exploiting Opportunities for Airline Entry and Competition

Increased opportunities for entry and competition in the airline industry depend on the efficient provision of airport and airway capacity to accommodate current as well as new and varied aviation services. Yet obstacles persist, including longstanding rules that curb access to some of the country's largest airports. There also are restrictions on how airport operators can raise and invest funds to meet demands for runways, terminal buildings, and gate space.

Since deregulation, an imbalance has become increasingly evident. The speed and agility with which airlines have been able to respond to changing traveler demands surpass the ability of federal, state, and local governments to expand airport and airway capacity and to adopt pricing mechanisms that induce and ration that infrastructure more efficiently.

The nation's airport and airway infrastructure are not the only untapped opportunities for airline entry and competition. Federal law limits foreign ownership and operation of U.S.-based airlines; this is a prominent example of competitive opportunities diminished by govern-

ment policy. Reconsideration of these restrictions—which reduce the flow of capital, management experience, and competing operators into the domestic airline industry—has been recommended by others and is again urged here.

The airline ticket distribution system is another aspect of the industry that can open or close more possibilities for competition. The ticket distribution system now consists largely of travel agents using airline-affiliated computer reservation systems (CRSs). However, the advent of Internet reservation systems and other new forms of distribution have spurred changes that could either reduce or augment the system's comprehensiveness and impartiality.

IMPROVING THE USE AND AVAILABILITY OF AVIATION INFRASTUCTURE

Deregulation proved that the airline industry could be innovative and efficient when exposed to competition in the marketplace. Not all aspects of the industry, however, have been subject to competitive discipline. Although individual airports compete for flights and passengers, they remain almost entirely under the purview of the public sector. The air traffic control system—administered by the Federal Aviation Administration (FAA)—is even more insulated, as the only significant industry component that is not free to respond to marketplace demands.

Without this freedom, constraints on the supply of airports and navigable air space have increased, and their adverse effects have been magnified. Chronic airport and airway congestion affect not only the on-time performance of airlines, but also where airlines choose to fly, how they design their networks, and the type of equipment they use. Infrastructure constraints are almost certain to have detrimental effects on competition, particularly on entry and expansion by low-cost carriers.[1] Moreover, to compensate for capacity shortages, administrative measures have been adopted, such as hourly quotas limiting airline use of some high-demand airports. However, these administrative remedies have had the unintended effect of creating other obstacles to airline entry and competition.

[1] See Chapter 1 for a discussion of how Southwest and some other low-fare carriers depend on intense use of equipment and labor to achieve a competitive advantage.

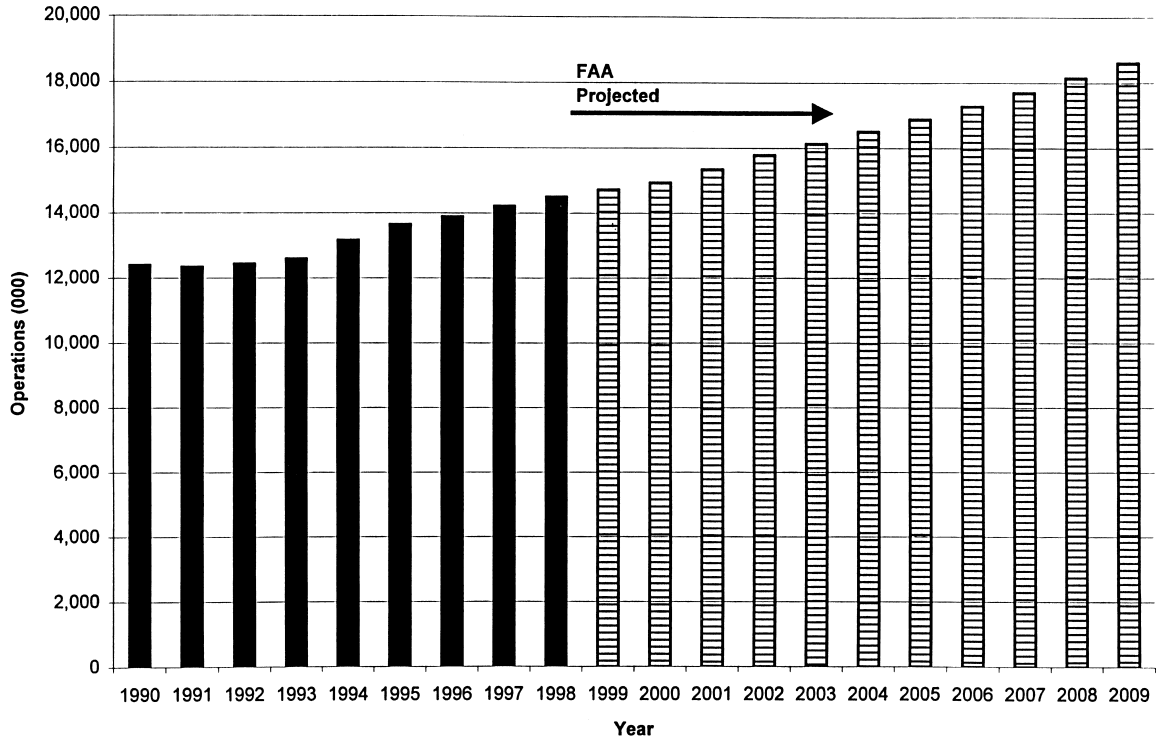
Market-Based Approaches for Allocating Airport and Airway Capacity

A key point made in *Winds of Change* was that the performance of commercial airlines is interrelated with the capacity of airports and navigable airspace. The government's provision of this basic transportation infrastructure was not keeping pace then and is not keeping pace now. Over the past decade, several other reports—most recently the 1997 National Civil Aviation Review Commission report—have concluded that capacity shortfalls are likely to worsen unless changes are made in the way this vital infrastructure is provided.

When demand for airport and airway capacity exceeds supply, queues and delays develop. Chronic air traffic delays are indicative not only of demand straining against insufficient capacity, but also of inefficiency in rationing infrastructure use. Throughout its history, FAA has handled air traffic control at most airports on a first-come, first-served basis. Its current method of controlling peak traffic demand is through "flow control," which keeps aircraft on the ground awaiting openings in traffic flow. Most commercial airports handle demand in a similar first-come, first-served manner. Little distinction is made among aircraft of differing types, whether a large jet with more than one hundred passengers, or a smaller general aviation aircraft. The exceptions are the major airports that are subject to federal quotas on hourly operations, as discussed below.

About 400 airports in the United States have FAA towers to provide air traffic control (ATC). Of these, the top 75 airports account for the vast majority of operations (FAA 1998). During the 1990s, the number of commercial aircraft departures increased more than 15 percent (Figure 3-1). Missing from the aggregate data, however, are the operations forgone because of insufficient capacity or shifted to time periods and airports that are less desirable for travelers. On the basis of FAA's demand projections, such undesired effects can be expected to increase in the years ahead. FAA expects the number of operations by major commercial domestic carriers to grow by 25 percent by 2010 (Figure 3-1).

These projections suggest that better use of existing capacity and more responsive means of supplying it are essential. While airport runway expansions and air traffic control modernization could increase capacity, it is also important to take advantage of the underutilized parts of the system.



SOURCE: FAA 1998 (Table 27)

Figure 3-1 Scheduled air carrier operations, historical and projected.

For instance, secondary airports in many major metropolitan areas have idle capacity, and even many hubs have extra capacity between connecting banks. Regarding this as an opportunity, Southwest Airlines concentrates its operations at secondary airports and during lulls in hubbing activity at the primary airports where it chooses to operate. Given the expense and practical difficulties of expanding runways and terminals at many congested major airports—partly because of limited space and community opposition to noise—the importance of using existing capacity more intensively and wisely is apparent.

The fees imposed on airlines and other users of airways and runways do not vary with congestion. Air traffic control is paid for largely through passenger and fuel taxes, which have little relation to the cost of supplying and using this infrastructure. For instance, most airport landing fees are calculated based on aircraft weight with no consideration given to the operation's incremental effect on traffic congestion. These fees do not reflect the opportunity cost of using airspace and airports during peak periods, a situation that has contributed to excessive peak-hour use and little direct incentives for airport and air traffic control managers to enhance capacity in the face of high demand. Economists long have maintained that the underpricing of scarce resources like navigable airways and runways will result in overuse and undersupply and that airport congestion could be reduced by setting prices that better reflect total costs for the use of this infrastructure.[2] For instance, Morrison (1987) and Morrison and Winston (1989), in modeling airport runway pricing from an economic welfare perspective, demonstrated large efficiency gains from the adoption of congestion pricing. Other simulations, including Daniel (1991), have found that congestion-based airport pricing would encourage airlines to shift their operations away from the peak, reducing congestion.

In the committee's view, pricing the use of airways and airports is the most suitable approach for rationalizing these operations, and probably the only long-term solution to ensuring efficient use and supply of vital infrastructure. Precisely how user costs should be calculated and prices established remains an unresolved issue, although certainly congestion, noise, and other undesirable external effects of operations should be included

[2] See Vickery 1963 for an early discussion of congestion pricing for roads and other transportation facilities. See Levine 1969 for an early discussion of congestion pricing for airports.

to the extent possible. *Winds of Change* urged experimentation with—and greater reliance on—pricing to spur more efficient use and provision of airport and airway capacity. This committee agrees that pricing is the most efficient means of rationing scarce airway and airport capacity and prompting more supply.

Charging for access to heavily used airports likely will encourage greater use of secondary and reliever airports. Setting fees that reflect the true marginal cost of using congested airports during high-demand periods would encourage those peak users who place the lowest value on flying during these periods to shift either to off-peak times or to nearby secondary airports. General aviation operators also would be more inclined to use smaller, reliever airports, of which there are more than 3,000 in the United States. This shift could have a significant effect on the availability of capacity at some major commercial airports such as Washington Reagan National, where general aviation accounts for about 20 percent of total airport operations. FAA has tried to encourage general aviation operators to use reliever airports; charging extra for the use of major airports during congested periods would further this goal.

There are many practical difficulties to gaining acceptance of such market-based strategies. Past attempts to raise landing fees to reflect congestion costs have been impeded by legal, political, and contractual obstacles. The most notable example is the effort by Boston's Logan Airport in the 1980s to impose higher landing fees based on the cost of the resources required to handle the operation (excluding congestion costs, however). The traditional landing fee had been based on an aircraft's weight, which mainly affects runway wear. Boston's experimental fee structure would have generated lower charges for operators of large jet aircraft—which accounted for 60 percent of the operations and carried 94 percent of the passengers at the airport—and higher charges for operators of smaller general aviation and commuter aircraft.[3] Federal aid to airports, however, has long been conditioned on an open-access policy that prohibits airports from discriminating against classes of users, such as private and small commercial operators. Contending that cost-based

[3] See Massport's Program for Airport Capacity Efficiency, prepared by the Massachusetts Port Authority, Dec. 11, 1987.

landing fees would be discriminatory against users of smaller aircraft, FAA vetoed the Logan Airport proposal.

Another practical obstacle to runway pricing is that some of the nation's largest airports have lease clauses with their major airline tenants that have the effect of limiting the airport operator's ability to raise fees, including landing charges. One of the reasons for these clauses—as well as FAA's open access policy—is a longstanding concern that major airport owners, benefiting from their local monopoly position, will raise congestion fees excessively and use the proceeds for purposes other than enhancing capacity for air operations.

Developing and implementing appropriate market-based approaches will require some experimentation. This committee could not examine specific pricing options and methods, but it does believe this is the fundamentally correct approach and that experimentation should begin. Without pricing to induce supply and manage demand, airport and airway capacity will remain poorly allocated and increasingly rationed through inefficient administrative procedures, queuing, and delays. With air traffic demand growing, these allocation methods inevitably will have to be replaced. Their competition-inhibiting side effects also threaten to become more severe.

Airport Perimeter Rules

Federal and local rules that limit long-haul flights to and from three major U.S. airports—Washington Reagan National, New York LaGuardia, and Dallas Love Field—should be eliminated. The rules no longer serve their original purpose and have produced too many adverse side effects, including barriers to competition. The rules arbitrarily prevent some airlines from extending their networks to these airports; they discourage competition among the airports in the region and among the airlines that use these airports; and they are subject to chronic attempts by special interest groups to obtain exemptions. Perhaps most significantly, the rules have had the undesirable effect of discouraging concerted efforts to find direct and efficient solutions to traffic congestion and noise concerns, undertaken at similar airports elsewhere.

Background

Two major U.S. airports—Washington Reagan National and New York LaGuardia—are subject to limits on nonstop arrivals and departures that exceed certain distances. In the case of LaGuardia, the Port Authority of New York and New Jersey has prohibited nonstop flights exceeding 1,500 mi, with the exception of flights to and from Denver. In the case of Reagan National, federal law has prohibited nonstop flights that exceed 1,250 mi.[4]

These constraints—known as perimeter rules—have been modified periodically. When first introduced by the Civil Aeronautics Board (CAB) during the mid-1960s,[5] the perimeter distance for Reagan National was 650 mi, although some flights to farther cities (e.g., Minneapolis, St. Louis, Memphis, and Miami) were exempted under grandfather provisions. Complaints from other communities outside this prescribed limit prompted the Department of Transportation (DOT) to raise the threshold to 1,000 mi in 1981. Five years later, Congress codified the basic concept of a perimeter limit at the airport extending it to 1,250 mi under the Washington Metropolitan Airport Act of 1986.

The original purpose of these rules was to encourage the use of Dulles for Washington D.C.–area flights and JFK for New York–area flights; both are international airports,[6] with longer runways and more spacious passenger facilities that could accommodate the larger jet aircraft introduced during the 1960s. In addition, this would reduce jet noise at Reagan National and LaGuardia, a growing concern of nearby residents. Under these plans, the two restricted airports would serve primarily local traffic, a higher portion of which involved smaller aircraft suited to short runways and smaller terminals. Moreover, travelers flying longer distances presumably would suffer less inconvenience as a result of the extra ground transportation necessary to reach the more remote Dulles and JFK airports, since the added ground transportation time would account for a smaller portion of the total travel time.

---

[4] Public Law 99-591.

[5] The plan was introduced in May 1966 by voluntary agreement among the regulated carriers and was approved as a rule by CAB soon after.

[6] The promotion of Newark International Airport also was a consideration in adopting this rule.

Another major airport affected by perimeter-flight restrictions was Love Field in Dallas. Several years before the construction of Dallas-Fort Worth International Airport in 1974, all the major interstate carriers promised to abandon commercial service from Love Field. Federal legislation later codified this agreement, confining flights of large commercial aircraft from Love Field to points within the state of Texas and in contiguous states.[7] Over the past two decades, access was extended to additional midwestern and southern states.

Changing Purpose of the Rules

The need to promote JFK, Dulles, and Dallas–Fort Worth airports has diminished as these airports have grown substantially. JFK is the largest international gateway to the United States. Not only has Dulles also become an important gateway, but its use as a hub by United and its proximity to residential and commercial development in Northern Virginia has made it convenient for local travel. As a main gateway and hub for American Airlines,[8] Dallas–Fort Worth has become one of the most heavily used airports in the country.

The Port Authority of New York and New Jersey, which runs JFK, LaGuardia, and Newark airports, and the Metropolitan Washington Airports Authority (which runs Reagan National and Dulles airports) continue to support the perimeter rules to boost domestic traffic at Dulles and JFK. The most prominent advocates of the rules, however, are residents near the airports, who are concerned that relaxed limits will increase jet operations, creating additional noise, especially from heavier jet aircraft loaded with more fuel and passengers for longer trips.

Criticisms of Perimeter Rules

Critics have contended that the perimeter rules misallocate capacity at key airports, leading to higher fares and less convenient service for travelers.

---

[7] Federal legislation codifying this agreement was not necessary before deregulation because Southwest Airlines, an intrastate airline that centered its operations at Love Field beginning in 1972, was not authorized to operate outside of Texas.

[8] Newark International Airport is also heavily used for both international and domestic travel as the major eastern hub for Continental Airlines.

They also maintain that the rules might have industry-wide effects on competition by preventing airlines with hubs located beyond the perimeter from serving key business markets with nonstop flights. For example, because it operates its main hub in Phoenix, beyond the perimeters, America West Airlines has objected to the rules. In contrast, all of the major incumbent airlines can reach both Reagan National and LaGuardia from major hubs within the perimeters.

Restrictions on long-haul flights at Reagan National, LaGuardia, and Love Field limit competition with other airports in their regions and also among the main carriers that use them. The main airlines at Dulles (United) and Dallas–Fort Worth (American) benefit from diverted traffic. Without restrictions, some maintain, Love Field would appeal to more airlines, increasing competitive options for Dallas-area travelers and serving as a versatile second airport for the region, much as Midway Airport does in Chicago.

Critics also point to other problems. From time to time, the perimeter rules have been modified under pressure from special interests. This continuing pressure is likely to generate additional piecemeal exemptions and modifications. These patchwork changes typically have had little to do with achieving a balance of flights among the Washington, D.C., New York, and Dallas area airports and more to do with the political influence of the airlines and communities seeking airport access. Administrative rules like these provide a standing opportunity for the government to decide which airlines and markets deserve access to key airports—decisions that can be made far more efficiently and equitably on market criteria.

Users and operators of other airports close to downtowns and neighborhoods, such as Boston, St. Louis, and San Diego, apparently have found ways to accommodate heavy demand and traffic concerns without resorting to administrative schemes for limiting access. Another adverse consequence of the perimeter rules is that they have discouraged the search for similar accommodations in the New York, Washington, D.C., and Dallas regions.

Recommendation on Perimeter Rules

To enhance opportunities for airline entry and competition, the committee urges the removal of restrictions on long-distance flights from

airports in favor of pricing controls that create incentives to find and adopt more direct means of accommodating traffic demands and other technical and operational factors.

Slot Controls

Federal rules that set hourly quotas on take-offs and landings at four of the nation's most popular airports hinder competition and should be replaced with more direct and efficient means of allocating access. Continuing reservations—known as slots—implement these quotas. Because the slots effectively serve as obstacles to competitive entry, they have had the perverse effect of motivating some major airlines to advocate continued constraints on capacity and service at these airports. Like the perimeter rules, these administrative restrictions also have become frequent targets for special interests seeking slot exemptions at these airports. The three-decade-old slot controls—a makeshift means of rationing airway and airport capacity—have delayed the introduction of more efficient, market-like means of providing and rationing this essential infrastructure.

Background on Slot Controls

Under the Federal Aviation Act of 1958, FAA has authority to regulate the use of navigable air space in the United States. During the summer of 1968, rising demand, coupled with work slowdowns by air traffic controllers, led to long delays and congestion at airports throughout the country, but particularly at Chicago O'Hare and the major airports of the Northeast (DOT 1995, 21–23). Late that year, FAA adopted the so-called high density rule to limit the number of take-offs and landings at Reagan National, LaGuardia, JFK, and O'Hare.[9] No longer open to any and all aircraft, these four airports were subjected to hourly quotas on the

[9] Newark Airport also was designated for quotas, but the restrictions were suspended because its congestion was primarily due to landside constraints at the airport, not to airway capacity limitations (DOT 1995, 1).

number of instrument flight rules (IFR) reservations they could accept.[10] The continuing reservations were allocated among three classes of users:

1. Scheduled commercial air carriers operating jet aircraft;
2. Scheduled commuter airlines or air taxis; and
3. All other users—primarily general aviation and charter aircraft.

The predominant IFR capacity for each airport determined the number of slots, as prescribed by FAA. Some of the air carrier slots at JFK and O'Hare were set aside for international flights. In all cases, the slot quotas purportedly were based on air traffic management considerations, not on landside constraints such as taxiways, gates, and terminals.

Though originally a temporary measure to relieve air traffic congestion until more permanent system enhancements could be made, the high density rule became permanent in 1973 (DOT 1995, 24–25). At that time, the airline industry was highly regulated, so that the fixed number of slots could be allocated among the handful of airlines with the most extensive, CAB-prescribed route authorities at the affected airports. Individual slots were allocated by the airlines, which formed voluntary committees that decided scheduling by unanimous agreement.[11] Although some airlines complained about the quotas, the voluntary process worked fairly well for about 10 years (DOT 1995, 23).

The deregulation of the airline industry disrupted this voluntary allocation process. The lifting of route franchises rapidly increased the demand for slots by competing airlines, including new carriers seeking to enter mainline markets as well as established carriers seeking to protect and expand their networks. Disputes and deadlocks during the slot allocation process became common and FAA often was called in to reallocate slots through administrative fiat. Meanwhile, the 1981 air traf-

[10] Instrument flight rules define procedures for aircraft operations during low-visibility conditions; most notably, lengthening the distances between aircraft. Because these are conservative allowances for low-visibility conditions, most airports have a greater capacity to accept flights during high-visibility conditions.

[11] Likewise, voluntary committees of commuter carriers allocated the slots for "air taxis," though general aviation and charter slots were made available on an ad hoc basis through advance reservation.

fic controllers strike prompted FAA to introduce slots at 18 other congested airports. During this period, FAA allowed airlines to trade, buy, and sell slots in order to maintain networks and ensure efficient use. Slots at the 18 airports were removed in 1984, but bolstered by this experience, FAA promulgated rules allowing the sale of slots at the four original and continuing slot-controlled airports, beginning in 1985 (DOT 1995, 26).

In adopting the "buy/sell" rule, FAA explicitly acknowledged that scarce slots had become valuable assets to airlines.[12] Although the new rule would not make the slots any more or less scarce, it would distribute them more efficiently among carriers that valued them most. Economists had long argued for slot trading, since it would allow the market, rather than government, to decide who should use these valuable resources. It was doubtful that FAA, or voluntary airline committees, could make these determinations in a fair and efficient manner. Allowing airlines to buy and sell slots was viewed generally as consistent with the efficient outcomes and competitive processes introduced by deregulation.

Though permitting the trades, FAA emphasized that commercial airline slots remained federal property and could be recalled at any time. Nevertheless, the agency expected an active market. Though perhaps not evident to FAA at the time, one of the reasons for the high demand for slots is the economic value of the price-inelastic business traffic that is accessed by having these key airports in an airline's network. Rather than selling them through auction, FAA elected to give—or grandfather—the slots to airlines that held them at the time of the rulemaking; however, it withheld a small number to reallocate among new entrants.[13] Although it acknowledged it had conferred windfall gains on the grandfathered holders, FAA argued that this imperfect allocation method was the least disruptive way to achieve an outcome that would benefit travelers.

---

[12] See High Density Traffic Airports; Slot Allocation and Transfer Methods, *Federal Register*, Vol. 50, No. 245, Dec. 20, 1985, pp. 52180–2201. This notice of final rulemaking reviewed in detail the rationale for the buy/sell rule and the public comments in favor and opposition.

[13] The rule provided 15 percent of slots to new entrants, international operators, and airlines operating with subsidies from the Essential Air Service program.

The agency anticipated significant slot turnover as airlines with the most beneficial uses became the highest bidders. However, as a precaution against hoarding—that is, acquiring slots but not using them fully—the rulemaking included "use or lose" provisions requiring that the slots be used 65 percent of the time; it later raised this to 80 percent. FAA did not anticipate a need to enforce these use-or-lose provisions, believing that the slots would be reallocated quickly to the highest-value, most intensive users. The agency discounted the notion that a small number of airlines might amass a large number of the slots, inhibiting competitive entry. In response to concerns that airlines might hoard slots for anticompetitive reasons, FAA argued that the high opportunity cost of underused slots would preclude such behavior, and that even the smallest airline with sufficient use could procure a slot through leasing or secured financing—since the slots could be used as collateral.

Competition from the other, non-slot–controlled airports in the New York, Washington, D.C., and Chicago areas was viewed as an additional deterrent to the hoarding of slots by incumbent airlines trying to safeguard their market power. These market deterrents, combined with the use–or–lose provisions and active antitrust enforcement, were deemed sufficient to prevent anticompetitive consequences. As expected, the rules led to active buying and leasing of slots. Many slot holders today, including financial institutions, do not operate them but lease them to others.

The last major change in the slot control rules occurred in 1994. In the FAA Authorization Act of 1994, Congress allowed DOT to grant exemptions from the high density rule to provide essential air service to small communities, international service, and service by new entrant carriers based on public interest and under other circumstances determined by the Secretary as "exceptional." Reagan National Airport was excepted from most of these rule changes. Significantly, Congress cited the rules in the legislation, instructing DOT how to grant exemptions. What had started out two decades earlier as a temporary measure to alleviate traffic problems at four major airports had now been transformed into a semipermanent rule, incorporated into federal legislation.

Effects of Slot Controls on Airline Efficiency and Competition

Despite the repeated modifications of slot controls, many fundamental concerns remain. Perhaps the most enduring criticism is that they allocate access to key airports on arbitrary distinctions among operators of large jet, commuter, and general aviation aircraft rather than on the most efficient use of the slots. About 20 percent of the operations at LaGuardia and one-third at Reagan National are by nonjet aircraft (DOT 1995). This is because the class-based assignments of slots were left unchanged by the 1985 buy/sell reforms, even though the majority of air travelers fly in larger commercial jets and would benefit from the shifting of an increased share of slots to larger aircraft.

Another often-cited concern over slot controls is that incumbent airlines can hoard these assets to restrict entry and expansion by rivals. New York, Chicago, and Washington, D.C., are among the largest air markets in the country. Direct access to these airports can be important for developing a large hub-and-spoke network, since they are popular origins and destinations for business travelers. The high price paid by airlines for jet slots—often exceeding $1 million—reflects the willingness of air travelers to pay higher fares to fly to and from these convenient airports.

The concentration of slots among a few major carriers also reflects efficient use because of network economies of scope. For instance, United and American Airlines hold the majority of slots at Chicago O'Hare, which serves as a hub for both carriers. US Airways, the major network carrier in the Northeast, holds the most jet slots at Reagan National and LaGuardia. Nevertheless a slot is also more likely to be valuable to a carrier protecting a dominant market position than to a new entrant seeking to compete with a market-dominating incumbent. Therefore the problem might not be that incumbents are hoarding slots and not using them, but that the slot controls themselves have restricted opportunities for significant airport access by rival airlines. For instance, a slot-controlled airport could not become the base for an expanding low-fare entrant, as Atlanta did for ValuJet. DOT identified several similar problems with slots and with possible reforms in its 1995 study of the high density rule (DOT 1995). One common claim, for example, is that slot holders add unprofitable flights on weekends to satisfy the

use-or-lose rule; another is that they lease slots to affiliated commuter flights on a short-term basis for the same purpose (DOT 1995).

Recent Changes in the Slot-Control Rules

In first applying the standard of exceptional circumstances for adding slots, as specified in the 1994 FAA Authorization Act, DOT originally granted exemptions only when there was a significant void in service, such as in markets without previous nonstop service. It adopted this strict standard to minimize increases in air traffic. Yet in response to requests from members of Congress, new entrant airlines, and individual communities, in 1997 DOT loosened its criteria for approving exemption.[14] Under its new criteria, exceptional circumstances involved

- Carriers with a "demonstrated potential for low-fare entry";
- Single-carrier routes that could support additional entry; and
- Markets without "meaningful" price competition.

Once again, the exemption process had compelled the government—this time, DOT rather than CAB—to make distinctions about which airline markets can support entry, where price competition is "meaningful," which carriers merit special treatment as "new entrants," and which communities deserve additional service. DOT also must entertain filings from other carriers and interested parties stating why applicants should or should not be approved, including assertions by incumbent airlines that exemptions would generate excess capacity or put current slot holders (including grandfathered holders) at a competitive disadvantage. However, approved slot exemptions seldom have been revoked, even after new-entrant recipients had merged with or transferred their slots to larger incumbent airlines. For example, the slots received by Reno Air under DOT's exemption program were transferred to American Airlines when Reno and American merged in 1999. In such cases, it is difficult to avoid the inference that the value of the slots was a factor in these merg-

[14] DOT's criteria and rationale for granting exemptions—and the reasons why these criteria have been changed—are explained in Order 97-10-16 (October 24, 1997), Office of the Secretary, DOT.

ers, or that dispensing slots to spur new competition and expanded service might be futile.

Use of slots for other purposes—for example, to promote new entry—reflects the way the high density rule has evolved beyond its original purposes—to control traffic congestion. In this evolution, DOT's Office of the Secretary has been charged with administering the new slot exemptions, not FAA, the agency responsible for air traffic control and for administering the slot control rules. The effect of added slots on air traffic congestion apparently is no longer an exclusive or even significant concern. However, Congress authorized DOT to grant slot exemptions only in three of the four airports (O'Hare, LaGuardia, and JFK). By not authorizing slot exemptions at Reagan National, where local residents favor controls to decrease jet noise, Congress has acknowledged that noise abatement is a central reason for retaining these quotas.

Evolving Purpose of Slot Controls

Noise relief now might be the overriding reason for retaining restrictions. In the case of Reagan National and LaGuardia, virtually the entire day is subject to slot restrictions—even on weekends—mostly because of community concerns about noise, not because of air traffic and airport congestion. At the same time, federal regulations are requiring the use of quieter, Stage 3 jet aircraft. By comparison, decreased air safety is not a genuine concern, since safety has never been the main reason for slot controls. According to DOT, slot controls do not play a role in air safety, because the air traffic management system employs such conservative practices as "ground delay" flow control (DOT 1995, 3).

However, slot controls have influenced the mix, number, and timing of operations at the four affected airports. A DOT study of the high density rule indicated that the early elimination of slot controls would increase operations by 5 to 20 percent at these airports (DOT 1995). The study, which did not assess the dynamic or long-term effects, also predicted that the mix of aircraft operations would change, but the result of lifting the quotas would depend on the new methods of allocation put into effect.

It remains unclear, therefore, how the removal of slot controls would affect changes in the number, timing, and mix of operations, and how aircraft operators, air traffic controllers, and airports would respond to

demand. Airlines and other users certainly could change schedules and types of aircraft. The public's willingness to accept or adjust to varying degrees of delay and inconvenience would affect the search for new methods of allocation. If take-offs and landings at these slot-controlled airports are governed by the first-come, first-served queuing process used by other major U.S. airports, it is conceivable that many travelers would accept additional delays in exchange for increased access to these airports during peak periods. Recurrent delays from heavy demand, however, would prompt direct responses to relieve congestion, including some that would reduce demand during congested travel times.

It is unclear, too, whether the removal of slots would disclose additional, previously hidden capacity. The extent to which runways, gates, and other physical and landside limitations preclude higher usage, and whether these constraints can be eased, and how, remain open questions. Like the perimeter rules, slot controls have enabled these airports to postpone the pursuit of other means to manage and accommodate jet operations. Lifting slot controls would perhaps be the only way to ascertain the size of the problem and to compel more efficient measures—such as congestion pricing—to expand supply and ration its use.

As discussed in Chapter 2, slot-controlled airports consistently are among the highest-priced markets in the country. These airports are main destinations for business travel, especially from many nearby cities such as Rochester, Richmond, and Des Moines, which have repeatedly expressed concern to DOT and Congress about high air fares. In the committee's view, the detrimental effects of slot controls on airline efficiency and competition are well documented and are too far-reaching and significant to continue. Studies by the General Accounting Office (1996), the National Commission to Ensure a Strong Airline Industry (1993), and others have urged phasing out slot controls or increasing the number of slots. In its proposal for FAA reauthorization, the Clinton Administration called for the end of slots after a 5-year period at LaGuardia, JFK, and O'Hare airports. Other similar proposals are circulating in Congress.[15]

[15] Clinton Administration FAA Reauthorization Bill, unveiled Feb. 8, 1999. This bill proposed the elimination of slots at three of the four slot–controlled airports—Reagan National was the exception—within five years, although regional jet aircraft would be exempted immediately.

As discussed earlier, direct economic means of allocating access to these key airports—for example, by peak-period pricing for use of airports or air traffic control services and by supply-side investments in reliever airports—are preferable to slot controls and other administrative schemes for rationing airport and airway access.

Recommendation on Slot Controls

The committee recommends the early elimination of slot controls, to be replaced by pricing and other market-based methods for allocating and supplying airport and airway capacity to control congestion and other undesirable effects from air traffic.

Supply of Gates and Other Airport Facilities

Though airports are mostly owned and operated by state and local governments, they receive significant funding from the federal government. Partly due to concern that state and local owners might misuse their airport monopolies—for instance, by restricting access by some operators, raising user fees excessively, or diverting revenues to non-airport uses—federal aid has been contingent on adherence to an array of rules about how airport operators can generate, invest, and spend revenues. Adopted piecemeal to address particular concerns, these rules have contributed to longstanding financial relationships between many large U.S. airports and their largest airline tenants. In short, many airports depend on these tenants for financial assistance in building facilities. The availability of these facilities, critical for competitors, can be limited by the financial and contractual agreements between the airport operators and their airline tenants. Coupled with other federal rules stipulating equal access to airports by all prospective users, these agreements have made it difficult for airports to charge fees that reflect the full costs of using runway space.

The overall effects of these federal-aid rules on competition merit thorough review. A topic for consideration is whether travelers would be better off if airports had more freedom to raise and spend revenues for enhancing capacity and managing demand. At the same time, airports that are chronically short of gates and other passenger facilities for use by potential competitors should be prompted by the federal government—

and even compelled through the withholding of federal aid—to make sufficient facilities available.

Background on Gates and Facilities

The allocation of airport gates and aircraft parking positions—necessary for enplaning and deplaning passengers, loading and unloading baggage and supplies, and refueling and servicing the aircraft—would seem to be straightforward and uncontroversial. Yet there have been repeated complaints that shortages of available gates at some major airports—especially hubs—are an obstacle to airline competition. As with slots, there is concern that incumbent airlines are dominating scarce gate space to the detriment of rivals and potential entrants.

Although they might own the passenger loading bridge and aircraft service equipment, airlines typically lease their gates from the airports. Many of these leases are exclusive-use contracts, under which the airport operator can renegotiate terms for gate usage, but day-to-day use and assignment of flights is the airline's decision. Airlines can sublease gates to other airlines, with or without airport permission, depending on their contracts. Some airports promote preferential- and joint-use arrangements. Under the preferential-use arrangement, when a gate is not being used by the lessee, the airport operator retains the right to assign it temporarily to another airline. Under the joint-use strategy, gates are rented to more than one airline. A few major airports and many smaller commercial airports operate most of their gates on a common-use basis, under which the airport operator makes all gate assignments. Many airports have a mix of arrangements. Table 3-1 lists the share of gates at major U.S. airports that are subject to these different agreements, based on a 1998 survey by the Air Transport Association.

Because of scheduling differences, one airline may have temporarily idle gates when another has high demand and a shortage. Seldom, however, will a gate–holder offer temporary use of its idle, leased gates to another airline—but this reluctance can be legitimate, because if the gate is not vacated in time, it could disrupt a later arrival.

Although gate scarcity is to be expected during peak activity, a frequent concern is that some airlines might be using their exclusive-use

Table 3-1 Gate Leasing and Use Arrangements at Major U.S. Airports

Airport	Exclusive Use (% of Total)	Preferential Use (% of Total)	Common Use (% of Total)
ATL	81	0	19
AUS	0	100	0
BOS	80	0	20
BWI	0	80	20
CLE	98	0	2
CLT	80	0	20
CVG	53	47	0
DAL	94	0	6
DCA	0	100	0
DEN	0	71	29
DFW	93	0	7
DTW	71	23	6
EWR	84	0	16
FLL	51	8	41
HNL	0	0	100
HOU	0	100	0
IAD	0	90	10
IAH	84	0	16
JFK	80	0	20
LAS	0	92	8
LAX	58	0	42
LGA	83	0	17
MCI	0	76	24
MCO	89	4	7
MDW	87	0	13
MEM	97	0	3
MIA	0	0	100
MSP	19	81	0
OAK	0	90	10
ORD	87	0	13
PDX	0	70	30
PHL	81	8	11
PHX	95	0	5
PIT	80	12	8
SAN	0	62	38
SEA	79	0	21
SFO	82	5	13
SJC	37	60	3
SLC	96	3	1
STL	14	86	0
TPA	31	44	25

SOURCE: Air Transport Association.
NOTES: See text for description of exclusive, preferential, and common use. See Appendix D for list of airport codes.

contracts to hold onto gates that otherwise sit idle for much of the day—for instance, during the periods between connecting banks. When few or no extra gates are reserved by the airport operator for other airlines, recurrent gate scarcity can become an impediment to entry.

To prevent a new rival from gaining a foothold, it is possible that an incumbent airline might withhold gates or offer unattractive terms, such as requiring use of its ground support services (e.g., baggage handling) at premium rates, as discussed in Chapter 2. Other hindrances, such as the relocation of available gates to remote and inconvenient terminal areas, also have been reported.

Concern over Leasing and Contractual Agreements

Airports have entered into exclusive, long-term gate leases with airlines for various reasons. Some are old agreements carried over from before deregulation, when a limited number of airlines had authority to operate from individual airports. At that time, the leases might have made sense to airports and airlines alike. Airports were assured long-term tenancy, while the airlines could predict and manage their airport costs more easily. Many exclusive-use contracts encompassed more than gates; some included proprietary rights to entire terminals. Airports precluded by federal-aid rules from accumulating reserve funds could use the leases to obtain favorable revenue bond financing for capital investments. In return for being a guarantor of these debts, the airlines demanded and usually received exclusive-use agreements for gates and other passenger facilities. Many of these agreements included "majority in interest" clauses, giving signatory airlines special rights to approve airport capital expenditure plans, including plans for new gates and terminals. This authority to limit increases in operating costs effectively allowed signatory airlines to approve new projects and limit landing fees and other airport user-charges.

As backers of substantial airport debt, airlines have maintained that restrictive contractual clauses were essential for minimizing their liability for excess airport debts unrecoverable through nonairline airport revenues, such as concessions. Although these kinds of contractual arrangements were more common before deregulation, they continue to be used

by some airlines and airports.[16] Meanwhile, some of the older agreements have many years left before they expire.

Other Funding Sources for Gates and Passenger Facilities

A source of funds for airport development not tied to airlines is the federal aid provided under the Airport Improvement Program (AIP), administered by FAA. AIP grants account for 5 to 25 percent of the capital improvement expenditures by most major airports. Aid rules, or grant assurances, restrict the use of these funds, partly out of concern that state and local authorities might apply them to nonairport projects and programs. Airports that receive AIP funds are also required by grant assurances to avoid unjust discrimination against specific classes of aircraft operators—such as general aviation—and they cannot give individual operators exclusive or preferential rights to fly into and out of the airport.

In the committee's judgment, federal-aid rules that narrowly proscribe the ability of airport operators to generate and invest funds for airport facilities have produced outcomes that warrant review as possibly adverse to competitive entry. Perhaps the most illuminating, and troubling, example of how these rules can be harmful is FAA's refusal to allow airports to assess fees that fully reflect their costs incurred for aircraft operations, as noted earlier in the Logan Airport example.

In 1991, Congress recognized that the federal-aid rules had hampered the ability of airports to regulate the use and supply of their facilities. It passed legislation allowing airports to charge airlines a fee known as a "passenger facility charge" (PFC) for each passenger enplanement. FAA previously had prohibited such charges, concerned that airports, and the state and local authorities that run them, would use their monopolies to raise user charges indiscriminately and to divert the revenues to nonairport uses. The legislation capped PFCs at $3 per head and limited the diversion of the funds to nonairport uses. Airports can use the revenues for a variety of purposes, from improving runways to adding terminals

[16] Such arrangements can assure local communities of the continued presence of a carrier, especially hubbing carriers that provide local employment opportunities and frequent nonstop service.

and gate capacity. The rules stipulate that gates and terminals funded through PFC revenues cannot be subject to exclusive-use contracts or to long-term leases.

Not all airports have imposed PFCs, and the overall effect of these revenues in increasing gate capacity remains unclear. DOT is studying their effect and considering ways to encourage the use of PFC funds for more gate construction.[17]

Gate Space Problems at Hub Airports

A 1996 GAO report on barriers to entry in the airline industry identified six major U.S. airports—Charlotte, Cincinnati, Detroit, Minneapolis, Newark, and Pittsburgh—as having a majority of their gates under exclusive leases, usually to one or two tenant airlines (GAO 1996). Many of the leases would not expire for several years. In all but one of these airports (Newark), the dominant hubbing carriers had exclusive rights to more than two-thirds of the airport's jet gate capacity.

GAO suggested that these findings indicated how incumbent airlines were able to achieve and retain a dominant position at some airports, especially at their hubs. Airlines responded that intense use of gate space is a consequence of hub operations, which entail a large number of flights. Nevertheless, GAO recommended that FAA should consider reducing federal AIP grants to airports that lease a majority of their gates on a long-term basis to a single airline and that do not have sufficient gates for potential entrants.

In the committee's view, limited access to airport gates can be an obstacle to entry that warrants close monitoring; DOT should take remedial action when airport operators fail to ensure that gates are being used and supplied efficiently.

Recommendations on Access to Gates

Airport operators should take steps to ensure sufficient gate supply for competitors, including buying back gates from dominant incum-

[17] See DOT. 1998. Request for Public Comment on Competitive Issues Affecting the Domestic Airline Industry. Docket OST-98-4025, *Federal Register,* Vol. 63, p. 37612 (July 13).

bents, if necessary. DOT, which can identify airports where gate availability is a recurrent problem, should monitor them closely; moreover, federal aid should be contingent on the airport having well-defined plans to ensure sufficient gate supply.

At the same time, DOT should review thoroughly its own rules affecting the ability of airports to obtain and spend funds for passenger facilities and other capital improvements.

OTHER OPPORTUNITIES TO SPUR COMPETITION

Foreign Ownership of Domestic Airlines

It is a longstanding requirement that airlines operating or based in the United States must be owned principally by U.S. citizens, who must account for at least 75 percent of the voting shares. Many other countries have similar requirements.

In the committee's view, removing these strictures on investment and participation in the U.S. airline industry would benefit domestic travelers, who currently bear the costs caused by any impediments to competitive entry. Any influx of foreign capital and management experience into the domestic industry, affecting small and large carriers alike, would foster more competition, benefiting travelers through more aviation services and options.

In the committee's opinion, the arguments in favor of retaining these limits are not convincing. The most common argument is that ownership by U.S. citizens is essential to the military's emergency airlift capabilities. Since 1951, the Department of Defense has had agreements with most large domestic airlines to maintain a Civil Reserve Air Fleet program. The concern is that foreign-owned or managed airlines would be less willing to participate.

The other main argument against foreign ownership is that the United States must retain these limits on foreign ownership as long as other countries do the same. In this way, ownership limits can be leverage in negotiating for open access for U.S. airlines and investors in foreign internal markets.

In the committee's view, preserving these limits to ensure civil airlift capabilities is unwarranted. Other options are available to provide this important capability, including direct payments to carriers. Moreover, it is

unclear why U.S. ownership affects the integrity and performance of the civil airlift program. In addition, retaining these limits to prompt foreign countries to open their domestic markets to U.S. competition is similarly questionable. U.S. domestic travelers would be the beneficiaries of more open entry into U.S. markets, just as foreign travelers would benefit from more open entry into their domestic markets. Paradoxically, U.S. policy is withholding the benefits of competition from domestic travelers to bargain for open domestic markets abroad, which primarily would benefit foreign travelers.

Recommendation on Foreign Ownership

Restrictions against foreign citizens owning and operating U.S.-based airlines should be lifted.

Airline Ticket Distribution System

The system for distributing air fare information has changed significantly since deregulation. Travel agents using CRSs are now the predominant source of fare information, reservations, and ticketing. This system is considered beneficial to travelers, providing a comprehensive and impartial channel of information on competing fare and service options. Over the past two decades, federal regulators have recognized this benefit and sought to preserve the neutrality and integrity of the system. Certain practices, however, such as any extra commissions provided by airlines to agents generating a large volume of business, remain subjects for concern. The possibility that airlines are becoming more adept at influencing the advice travel agents give to their clients deserves public policy attention. Yet the overall distribution system is dynamic, and the relationships among agents, airlines, and reservation systems are changing fast. The advent of Internet reservation websites and other computerized, alternative forms of distribution have presented opportunities and risks. These changes can reduce distribution costs and increase system efficiency to the benefit of travelers. However, the changes also could have negative effects, reducing the completeness and impartiality of the distribution system and raising consumer search costs. With so many changes ongoing, the committee is reluctant to offer specific advice. Monitoring these developments, nevertheless, seems in order and appropriate.

Background on the Ticket Distribution System

With the deregulation of the airline industry, complex fare and service offerings have proliferated. Faced with an unprecedented variety of choices, travelers have relied on travel agents to book their trips. Before deregulation, travel agencies accounted for about one-third of the tickets purchased for air travel; today more than 80 percent are purchased through these intermediaries (ASTA 1997).

To the consumer, the travel agent ideally represents a neutral source of information on airline fares and schedules. Although agents customarily have been paid a commission based on the ticket price—ostensibly an incentive to sell higher-priced tickets—most travelers assume they are acting in the best interest of the buyer.[18] Travel agents portray themselves as objective intermediaries, or even as consumer advocates, searching out the most convenient flights and lowest fares within the limits defined by the traveler. In a highly competitive and fragmented industry relying on repeat business, the agents maintain that consumers can expect to receive even-handed service.

In an airline's view, however, a travel agent sells its product, becoming an integral component of its marketing and distribution system. Because agents influence consumer choices, airlines have reason to induce agents to promote their fare and service offerings. At the same time, airlines want to avoid paying commissions when they can.

To the consumer, the commissions paid by airlines to travel agents are not important—travelers usually can obtain the same ticket at the same gross price from the agent as from the airline. However, this situation is changing. Using Internet websites, airlines are increasing efforts to sell their products directly to consumers by offering discounted fares not obtainable through travel agents. Meanwhile, more agents are charging customers a booking fee to compensate for declining commissions and the smaller commissions from low fares, which nonetheless can be time-consuming to find and procure.

[18] The commissions—ranging from 8 to 10 percent of the ticket price—are now capped at $50 to $100, which lessens the incentive to sell higher fares. Caps and commissions differ, depending on the airline and whether the travel is domestic or international.

Role of Computer Reservation Systems

Because of these sometimes-conflicting incentives, the relationship between the travel agent and airline industry has often been questioned. A main concern has been that airlines can use CRSs to bias the information given to consumers and to facilitate incentive plans for travel agents.

These computer systems—there are several in competition—allow agents to check airline schedules and seat availability, book flights, issue tickets, and change and cancel reservations. With the notable exception of Southwest, most airlines participate in all of the CRSs. The airlines provide their fare and schedule offerings to central databases that distribute the information to the CRS vendors and then to the thousands of travel agencies around the country. Virtually all agents, including Internet-based agencies, use CRSs.

The distribution system has bestowed large benefits on consumers. An agent using a CRS has up-to-date information on the fare and flight offerings of nearly all airlines in a given market, displayed in a format that can be quickly scanned for competing options. Not only does the CRS provide the fares of major airlines, but also those of smaller participating airlines. Although airlines pay a booking fee to the CRS vendor and a commission to the travel agent, access to this extensive distribution system is critical to smaller airlines with minimal name recognition and limited resources for other distribution and marketing methods. Consumers gain from the ready, comprehensive information on competitive fare and flight options.

For the most part, domestic CRSs were developed by the major domestic airlines, and most continue this affiliation. Travel agents generally subscribe to a single vendor. After deregulation, the host airlines used these systems to influence traffic. In particular, the algorithms used to display flight offerings on CRS screens listed the host airline's offerings ahead of competitors'. Likewise, the booking fees charged by vendors often varied significantly by airline. Carriers that did not own a CRS frequently were charged the highest fees, especially in markets where they competed head-on with the airline that owned the CRS. This practice was particularly harmful to the new and smaller airlines that had unfamiliar brand names and modest advertising and marketing capabilities, depending on a CRS to reach customers.

In response to these problems, in 1984, CAB—in its last major action—issued rules prohibiting unfair and anticompetitive CRS vendor practices. These requirements included unbiased displays of fare and flight information and availability to all airlines on a nondiscriminatory basis.

In a 1990 review, DOT concluded that the new CRS rules had lessened the biases and anticompetitive effects of CRS ownership by airlines significantly. DOT noted, however, that certain problems remained, particularly the so-called "halo" effect—several studies had demonstrated that airline owners of CRSs benefited from higher bookings by travel agents who were their subscribers. This was attributed to several causes—some innocuous—including the tendency of agents to have more confidence in the information provided by the host airline (especially on last-seat availability) and also to subscribe to the CRSs of the airlines they traditionally had booked. Another suspected cause was the cooperative business relationships that developed between the airline-owners of a CRS and the agents who subscribed; possibly these relationships induced the agents to emphasize the host airline's offerings. To help remedy this tendency, DOT prescribed additional rules in 1992 to make it easier for agents to use third–party hardware and software to access CRSs.

Recent Developments in Distribution

Concerns about the halo effect and CRS bias in general have declined in recent years as attention has shifted to the many other changes in the distribution system. For instance, airlines are selling tickets through their Internet websites or through auctions conducted on the Internet; offering fare discounts and rebates by working directly with corporations and other frequent purchasers; and forming alliances to reduce interlining and make it easier to book international trips and other complicated itineraries through a single airline.

Because travel agent commissions represent the second or third largest operating cost for airlines after labor and sometimes fuel, carriers are searching for alternative forms of distribution. By reducing commissions, they have compelled many agents to charge consumers directly for their services, perhaps inducing some travelers to purchase their own tickets directly. Southwest Airlines, for instance, traditionally has avoided travel agent sales, using in-house distribution methods that target repeat buyers.

Website distribution also offers the prospect of reducing labor-intensive, in-house reservation systems. "Net" fares—usually offered to a large company, net of travel agent commissions—transfer the distribution costs to the customer, who might be able to reduce the transaction costs through highly-tailored, contracted, or in-house corporate travel management services.

Airlines can segment demand by offering fares on websites, since travelers attracted there would be loyal customers. Last-minute Internet promotions and auctions of empty seats further separate price-sensitive travelers, who must plan in advance, from travelers who are able and willing to travel on impulse or on short-notice if the fare is right. Either way, with direct Internet bookings, the airline also avoids having to pay travel-agent commissions.

A possible outcome of these developments is that retail travel agents—and the CRSs they employ and rely on—could become less important in the distribution system. For example, carriers distributing tickets through their websites and other direct means might list a smaller portion of their available seats on CRSs; this in turn would reduce the completeness of the information provided in these systems and possibly the value to consumers. This loss of market share also could make CRSs less appealing to airlines—which might have some positive effects on competition, but also might hasten the obsolescence of CRSs if the airlines fail to maintain the databases. Although they might benefit from the many new forms of distribution, consumers also might lose an important source of impartial and comprehensive information if the CRS infrastructure was allowed to deteriorate.

Travel Agent Incentives

Winds of Change expressed concern that consumers typically are unaware of the financial relationships between many travel agents and airlines, particularly the practice of rewarding agents with extra commissions, or overrides, for meeting sales quotas on particular routes or overall sales levels.[19] Although recognizing that some of these volume-based over-

[19] The payments are in addition to the base commissions, which usually are established as a percentage of the ticket price.

rides are returned as fare rebates to the traveler, the *Winds of Change* committee nevertheless recommended a requirement that agents must disclose any financial incentives to their customers. This committee agrees with that recommendation.

Maintaining the neutrality of the travel agent ticket distribution system is important. There are indications, however, that airlines continue to search for ways to influence agents. According to a recent report by the DOT Inspector General, customized CRS software add-ons, or enhancements, have been developed by independent vendors to restructure screen displays, emphasizing sales on airlines offering overrides.[20] Some carriers also are purchasing and using CRS marketing information and sales data to track the percentage of a travel agent's business directed to rivals, permitting the airline to offer additional commissions and other compensation to agents who generate or surpass a specific market share. Smaller and low-fare airlines presumably cannot offer similar incentives. For example, incumbent airlines can limit their commission incentives to incremental travelers only, while the smaller, nonhubbing carriers must raise commissions on travel agent sales for all passengers. Although a case can be made that volume-based commission overrides, if passed along, bestow some benefits on consumers, the benefits from airlines monitoring or policing compliance by travel agents seem much more questionable.

Recommendations on the Ticket Distribution System

Aggressive efforts by airlines to police travel agent sales deserve further scrutiny, and might warrant new rules requiring public disclosure of extra commissions and other targeted incentives that can prejudice agents. In general, however, changes in the distribution system should be viewed as opportunities to enhance the system's overall benefit to consumers, and should not be dissuaded unless the neutrality and completeness of the distribution system is fundamentally threatened. DOT should remain alert to the possibility of such erosion.

[20] See DOT 1999. Report on Travel Agent Commission Overrides, Report CE-1999-0609, Office of the Inspector General, March 2.

SUMMARY

Increasing airport and airway capacity is essential to opportunities for competition and entry in the airline industry. In the long–term, ensuring adequate capacity will require an emphasis on charging users a cost-based price—including congestion costs—for access to this infrastructure, both to manage demand and to provide sufficient supply. This also should prompt the development and introduction of capacity-enhancing technologies. Part of the supply shortage must also be met through investments in additional physical capacity and in secondary airports, to relieve the congestion at airports that can neither expand nor provide sufficient opportunities for competing services.

The current system of queuing for access to airports and air traffic control services results in delays and is likely to get worse, unless more responsive ways are found to regulate demand and supply. Administrative schemes to limit and allocate use of some high-demand airports, without user pricing, have had the adverse effect of limiting competitive opportunities. Similarly, federal rules intended to prevent airports from charging monopoly rates for services have contributed to the undesirable outcome of curbing airports' sources of revenue, causing some airports to depend on financial relationships with their main airline tenants, to the detriment of their tenants' potential competitors and of consumers.

The committee urges the application of federal and other funds to expand airport and airway capacity, particularly by investing in capacity-enhancing technology. The goal should be to use pricing both to finance expansion and to allocate capacity more efficiently. Both technology and pricing should be employed to encourage additional flights to and from underused secondary airports in major metropolitan areas.

The following complementary actions are also recommended to enhance competitive opportunities:

- **Introduce pricing methods in place of administrative restrictions to manage airline access to some of the country's major airports. The emphasis should be on the early substitution of pricing for current slot controls and perimeter limits on long-haul flights, with the goal of al-**

locating scarce airport and airway space more efficiently and fairly among competing airlines and taking into account other technical and operational factors.

- **Ensure that federal rules for airport funding and spending authority do not conflict with the goal of increasing gate availability at major airports but are used positively to achieve it.**
- **End limits on foreigners owning and operating U.S.-based airlines.**

These recommended actions will create an overall environment in the airline industry that is more conducive to market entry and competitive services. However, these actions must be accompanied by government vigilance fostering fair and vigorous competition. A vital part of this government role is to ensure a well-functioning, efficient, and unbiased system for airlines to distribute their fare and schedule offerings and for consumers to obtain comprehensive and impartial information. In this regard, the committee **urges further scrutiny of aggressive efforts by airlines to police travel agent sales, which might necessitate new federal rules requiring public disclosure of extra commissions and other targeted incentives that can prejudice agents.**

REFERENCES

ABBREVIATIONS

ASTA	American Society of Travel Agents
DOT	Department of Transportation
FAA	Federal Aviation Administration
GAO	General Accounting Office

ASTA. 1997. *Competition in Distribution of Travel Services: The Future of Travel Agents*, Alexandria, Va.

Daniel, J. 1991. Peak-Load-Congestion Pricing of Hub Airport Operations with Endogeneous Scheduling and Traffic-Flow Adjustments at Minneapolis-St. Paul Airport. In *Transportation Research Record 1298*, TRB, National Research Council, Washington, D.C., pp. 1–13.

DOT. 1999. Report on Travel Agent Commission Overrides, Report CE-1999-0609, Office of the Inspector General, March 2.

DOT. 1995. *Study of the High Density Rule: Report to Congress*. Washington, D.C., May.

FAA. 1998. *FAA Aviation Forecasts: Fiscal Years 1998 to 2009*. Report FAA-APO-98-1. Washington, D.C.

GAO. 1996. *Airline Deregulation: Changes in Airfares, Service, and Safety at Small, Medium-Sized, and Large Communities.* Report RCED-96-79. Washington, D.C., April.

Levine, M.E. 1969. Landing Fees and the Airport Congestion Problem. *Journal of Law and Economics*, Vol. 12, pp. 79–108.

Morrison, S. 1987. The Equity and Efficiency of Runway Pricing. *Journal of Public Economics*. Vol. 34, pp. 61–85.

Morrison, S., and C. Winston. 1989. Enhancing the Performance of the Deregulated Air Transportation System. *Brookings Papers: Microeconomics 1989.* The Brookings Institution, Washington, D.C.

National Civil Aviation Review Commission. 1997. *Avoiding Aviation Gridlock: A Consensus for Change.* Dec.

National Commission to Ensure A Strong Competitive Airline Industry. 1993. *Change, Challenge, and Competition: A Report to the President and Congress*. Washington, D.C., Aug.

Vickery, W. 1963. Pricing in Urban and Suburban Transport. *American Economic Review*, Vol. 53 (Papers and Proceedings), pp. 452–465.