





charges, and would provide the basis on which the FAA would evaluate complaints of noncompliance with applicable law governing airport rates and charges. The Airport and Airway Improvement Act of 1982 (AAIA) as amended (49 U.S.C. App. 2201 et seq.) requires that airports be made available on fair and reasonable terms and without unjust discrimination. According to the NOPP, this provision requires that "rates and charges imposed on aeronautical users be fair and reasonable and without unjust discrimination"<sup>4</sup> [emphasis added]. Under the proposed FAA policy, landing fees and other airport charges would be required to be based on historical costs to be considered "fair and reasonable," unless individual users of the facility agreed to the use of a different rate base.<sup>5</sup>

The policy statement encourages airport users and airport managers to determine airport rates and charges through direct negotiations. According to the NOPP, the FAA generally does not monitor practices established by agreement between airports and users. Thus, airports and users may adopt, by mutual agreement, rates and charges that do not necessarily reflect historical costs.

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<sup>4</sup> Supra note 2, p. 29875.

<sup>5</sup> Section 2.4.1 of the NOPP states that "[a]irport assets must be valued according to their historic cost to the original airport proprietor. Subsequent airport proprietors shall acquire the cost basis of the original airport proprietor. An airport proprietor may not employ current cost and replacement cost methods to value airport assets." Section 2.4 does permit "one or more users [to] agree to a rate base that deviates from these practices in the establishment of those users' rates and charges." Supra note 2, p. 29877.

When negotiations fail to result in mutually agreed upon rates and charges, the FAA has "broad legal authority to review the legality of proposed airport rates . . . [and to allow parties directly affected] to seek a determination as to compliance with the principles set forth in this proposed policy statement."<sup>6</sup> If either airport users or airport managers prefer rates and charges that reflect historical costs over any other rates and charges proposed in negotiations, those parties could have a substantial advantage in these negotiations were the proposed policy statement to be adopted. Should negotiations fail to result in mutually agreed upon rates and charges, rates and charges that did not reflect historical costs would fail to comply with requirements that rates be "fair and reasonable."

The proposed policy statement recognizes that there is a crucial link between the prices charged for the use of an airport facility, and the efficiency with which that facility is employed. Section 3.2 of the proposed FAA policy would permit airports to adopt a "properly structured peak pricing system" that would "establish rates and charges that maximize the efficient utilization of the airport." Moreover, the NOPP recognizes that there are other methods for assessing the costs of providing airport services on which rates might be based. The NOPP seeks comment on how these alternative methods would promote the efficient use of airport resources.<sup>7</sup>

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<sup>6</sup> Supra note 2. p. 29874.

<sup>7</sup> Supra note 2, p. 29874.

The analysis contained in this comment suggests that a policy that requires prices to reflect historical costs could frustrate the effort to use airport resources efficiently. To promote efficient utilization of airport facilities, the FTC staff suggests that the FAA may wish to consider alternative cost-of-service ratemaking methods that would permit establishment of rates and charges that better reflect opportunity costs of resources. Finally, the FTC staff suggests that the FAA may wish to consider alternatives to traditional cost-of-service regulation, such as "price-cap" regulation, as a means for promoting efficient use of airport facilities.

## **II. Expertise of the Staff of the Federal Trade Commission**

The Federal Trade Commission is responsible for enforcing the Federal Trade Commission Act,<sup>8</sup> which, among other things, prohibits "unfair methods of competition." The staff of the Federal Trade Commission, upon request from federal, state, or local governmental bodies, comments on regulatory proposals that may affect competition, consumers, or economic efficiency. In the course of this work, as well as in antitrust and consumer protection research, nonpublic investigations, and litigation, the staff applies established principles and recent developments in economic theory to competition and consumer protection issues.

The staff of the Bureau of Economics has a longstanding interest in issues involving airport regulation, as well as more

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<sup>8</sup> 15 U.S.C. 41 et seq.

general interest in issues involving competition and regulation in the airline industry. This interest has been reflected in comments submitted by the Bureau of Economics staff in previous FAA administrative proceedings on slot allocation and transfer methods, and in previous FAA proceedings involving other aspects of airline competition and regulation.<sup>9</sup> In addition, the staff has issued research reports on slot allocation and airline deregulation.<sup>10</sup>

### III. Historical Costs and Economic Efficiency

In competitive markets, asset values are closely related to replacement value, the present cost of obtaining the services that the assets provide.<sup>11</sup> Accordingly, the value of assets

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<sup>9</sup> See the comments of the staff of the Bureau of Economics of the Federal Trade Commission, High Density Traffic Airports: Slot Allocation and Transfer Methods, FAA Docket No. 25758, November 15, 1991; Slot Allocation Alternative Methods, FAA Docket No. 24110, 1984. Comments on other aspects of airline competition and regulation include, Elimination of Airport Delays, FAA Docket No. 24206; Discussion Authority for Agreement to Shift Schedules, Department of Transportation, Docket No. 44634, February 23, 1987; and Charges for the Use of Metropolitan Washington Airports, FAA Docket No. 25204, April 13, 1987. See also Comments of the Bureaus of Economics, Competition, and Consumer Protection of the Federal Trade Commission, Massport Program for Airport Capacity Efficiency, February 29, 1988.

<sup>10</sup> See Koran and Ogur, Airport Access Problems: Lessons Learned from Slot Regulation by the FAA, Bureau of Economics Staff Report to the Federal Trade Commission, May 1983, and Ogur, Vita, and Wagner, The Deregulated Airline Industry: A Review of the Evidence, Bureau of Economics Staff Report to the Federal Trade Commission, January 1988.

<sup>11</sup> A more general statement of competitive asset pricing is that the value of existing capital assets will be equal to the discounted present value of future "quasi-rents," where quasi-  
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determined in competitive markets reflects the assets' opportunity cost. By contrast, an asset's historical cost (or "book value"), while representing the value placed on the asset at some point in the past, need not reflect the value that society currently places on the goods and services that the asset can produce.

In the presence of inflation, increased final product demand, or decreased prices of complementary productive inputs, prices set to cover an asset's book value would be too low, resulting in excess demand.<sup>12</sup> Historical costs, because they

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<sup>11</sup>(...continued)

rents are the excess of total revenues over avoidable costs (See, e.g., Stigler, *The Theory of Price* (3rd ed.), p. 253). In a competitive market, were this sum were to exceed current asset replacement costs, market entry by new assets would occur until, in equilibrium, the present value of quasi-rents just equalled asset replacement cost.

There are several qualifications to the replacement cost valuation principle. For declining or "dying" industries, the present value of the quasi-rent stream might be less than replacement cost. Conversely, if existing assets are in some way specialized, so that they cannot be perfectly reproduced by entrants, then these assets will earn returns ("scarcity rents") in excess of opportunity cost, even in competitive, free entry markets. See Lindenberg and Ross, "Tobin's q Ratio and Industrial Organization," *Journal of Business* 54 (1981), 1-32, pp. 2-3. The important point remains, however: market asset values are determined by current and expected net revenue flows, not by historical acquisition costs.

The FTC staff recognizes that in many (if not most) cities there is only one airport, which creates the possible existence of market power. In section IV, below, we discuss the policy implications of this market power.

<sup>12</sup> Prices based on historical cost can also be too high, relative to a competitive market price. For example, if technological change reduces the cost (hence the competitive output price) of producing some particular good or service, then  
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represent the price of the asset at the time it was purchased, do not change as society's valuation of the asset changes.

Accordingly, prices set to cover only historical costs often will not reflect the current value to society of the goods and services produced by the assets.

Consider, for example, a situation where airport services in some city are produced under conditions of increasing long run marginal cost.<sup>13</sup> Were demand for airport services to grow subsequent to the construction of an airport, under competitive conditions the fees charged for the airport's services would rise to reflect their increased value. The replacement cost value of the airport as an asset would rise as well.<sup>14</sup> Ultimately, airport service fees would rise by enough to cover the costs of providing airport services.

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<sup>12</sup> (...continued)

the market value of existing, older assets that produce those goods or services will also decline. These reduced asset values will reflect the lower opportunity costs faced by consumers. Were a regulator to require that the outputs produced by the older assets be sold at prices determined by historical costs, the resulting prices would be too high, since the historical value of the assets (that is, their "book value") would be (by definition) unaffected by the change in current technology. Prices based on book value would, in this case, lead to an allocatively inefficient underutilization of the older assets.

<sup>13</sup> Marginal costs would be increasing in the long run if, for example, the supply of sites suitable for airport use was inelastic.

<sup>14</sup> If airport services were priced competitively, the inelastically supplied production factors (e.g., the sites) would earn scarcity (or "Ricardian") rents, which would be appropriately capitalized in both market value and replacement cost. See Lindenberg and Ross, supra note 11, p. 2.



In contrast, fees based on historical asset costs could not rise as much in response to increased demand, and thus would not fully reflect the increased value to consumers of the airport's services. Prices set below market clearing levels will result in excess demand for the airport's services;<sup>15</sup> congestion and congestion-related delays will result, with a consequent decline in consumer welfare.<sup>16</sup>

Fees and charges based on historical costs may cause other kinds of resource misallocations. For example, suppose that a city is served by two airports whose services are identical from

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<sup>15</sup> If historical cost-based prices were too low (in the sense that they created congestion that carriers would prefer to avoid), then one would expect to observe individual carriers offering to pay a fee that exceeded this regulated price, if by doing so a carrier could assure itself of a more favorable position in a landing or takeoff queue. Such an arrangement would essentially be equivalent to the sale by the airport of a landing or takeoff "slot," and would likely render moot the requirement that prices be determined by historical costs, since users would voluntarily bid up the price of scarce capacity.

While the proposed FAA policy (§ 2.4) does permit individual airport users to negotiate rates that would differ from historical cost-based rates, there may be few incentives for users to offer such payments. Currently, the use of "slots" is authorized at only four airports. At other airports, an individual user could not be assured access to the airport at a predictable time, even if it were willing to pay for this privilege. Thus, unless users could collectively negotiate a market-clearing price with the airport, it seems likely that the default price often would be the historical cost-based price.

<sup>16</sup> Morrison and Winston find, for example, that the "failure to price air congestion correctly has hurt the relative performance of deregulation. Because optimal landing fees in the regulated environment would generate \$1.2 billion in net benefits, deregulation's relative performance from inefficient allocation of capacity is lowered by \$2.6 billion" [emphasis original]. See Morrison and Winston, "Enhancing the Performance of the Deregulated Air Transport System," in Brookings Papers On Economic Activity: Microeconomics (1989), 61-123, p. 85.

consumers' perspectives, and which differ substantially only in age. If airport fees are determined by historical costs, the older of the two airports would charge lower fees than the newer airport if demand had increased since the older airport was built, if the construction costs of new airports had risen, or if general price inflation had occurred. In general, airlines and their passengers would attempt to utilize the capacity of the older airport and avoid the higher-priced newer airport.<sup>17</sup>

Because the capacity of the older airport would be inadequate to satisfy this demand, the capacity at the older airport would have to be rationed by nonprice means, such as the creation of queues and congestion. In general, rationing "by the queue" is far less efficient than rationing by price, because the economic surplus (i.e., the difference between the value of the service, and its production cost) associated with the good is dissipated by the rationing process.<sup>18</sup>

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<sup>17</sup> As Alfred Kahn has noted (The Economics of Regulation: Principles and Institutions, 1988, p. 110), the use of historical cost pricing principles by public utility ratemakers has meant that "[w]hen customers have a choice to buy from one utility company or another, that choice will be determined not solely, as it should be, by their respective marginal costs, but, quixotically, by differences in the average age of their plants, which will produce different average rates. Thus, industry may be impelled to locate where the suppliers of electricity or transportation have a rate base of comparatively old vintage, even though the long-run marginal supply costs may be higher than elsewhere." Kahn also notes that historical cost ratemaking "tends to produce a perverse cyclical behavior of prices, holding down the charges for utility services when commodity prices are rising, and holding them up in periods of general price decline."

<sup>18</sup> In equilibrium, the total price of using the older airport (money price plus the price of time spent in the queue) would rise  
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Similar reasoning would apply when analyzing the impact of airport pricing on passengers' choices of "connecting hubs." As noted in the 1990 Report of the Secretary of Transportation's Task Force on Airline Competition, the existence of on-line connecting service through competing hubs has been an important source of competition in the deregulated era.<sup>19</sup> Because the fees charged by different hub airports will be a determinant of the air fares charged by carriers that use those hubs, it is important that competition among carriers based in different cities not be distorted by a pricing system for airport services that reflects mainly the age of the airport facilities in the different cities, rather than the true economic costs.

The proposed FAA policy concerning airport rates also could frustrate attempts to lessen congestion and congestion-related delays at major airports through the adoption of peak and off-

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<sup>18</sup> (...continued)

until it equalled the money price of the new airport. See Barzel, "A Theory of Rationing by Waiting," Journal of Law and Economics 17 (1974), 73-95, and Cheung, "A Theory of Price Control," Journal of Law and Economics 17 (1974), 53-71.

<sup>19</sup> The Report's Executive Summary (pp. 4-5) notes that in 1988, more than 55 percent of all passengers traveled in city-pair markets served by three or more carriers, as compared to 28 percent in 1979. The Report attributes this increase in competitive alternatives to the growth of on-line connecting service through competing hubs. To illustrate, the Report cited the example of travel between Albany and Minneapolis. In 1979 travelers on this route were served by two carriers, one based in Buffalo, the other in Chicago. In 1988 travelers could choose from among four carriers, using three different connecting hubs (Detroit, Chicago, and Pittsburgh).

peak landing and takeoff fees.<sup>20</sup> The proposed policy statement (§ 3.2) recognizes that peak load pricing is a method that helps achieve an efficient allocation of resources.<sup>21</sup> During peak-demand periods the marginal opportunity cost of takeoffs and landings is greater than at off-peak periods. If airport services were priced efficiently, takeoff and landing fees would be higher during periods of peak demand, when capacity is fully utilized, than during lower-demand, off-peak periods. As is discussed in § IV.A, below, constraining airports to base fees on historical costs could interfere with their ability to set efficient peak-load prices.

#### **IV. Efficient Pricing of Airport Services**

Although a competitive market would, in equilibrium, provide producers with a return just sufficient to cover current opportunity costs, airport services generally are not produced in competitive markets. Many metropolitan areas have only one airport, and only a very few metropolitan areas have more than two. Further, entry into the market for airport services is far from easy. The construction of a new airport, or the expansion of an existing airport, is time consuming; among other factors,

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<sup>20</sup> This comment does not address whether congestion problems are more efficiently addressed through the alternative market-based methods, such as the market for landing and takeoff "slots" used at the four "High Density Traffic Airports."

<sup>21</sup> The proposed FAA policy would permit airports to adopt a "properly structured peak pricing system" that would "establish rates and charges that maximize the efficient utilization of the airport."

entrants face substantial regulatory burdens at local, state, and federal levels. Accordingly, incumbent airport operators might possess market power in the pricing of airport services. In this instance it may be possible for the FAA to regulate the pricing of airport services in ways that reduce the welfare loss arising from monopoly pricing, yet allow airports to cover their costs.

#### **A. Cost-of-Service Regulation**

As discussed above, basing airport charges on historical costs is not an efficient substitute for competitive prices. Were the FAA to adopt a pricing mechanism for airport services that establishes, to the greatest extent possible, competitive prices, then the "rate base" would consist of replacement values rather than historical values.

According to the NOPP, one rationale for using historical costs to determine an airport's rate base is that historical costs "provide a reliable and verifiable valuation methodology . . . [and] are also the generally used methodology in public utility regulation."<sup>22</sup> While it is true that cost-of-service regulation based on historical costs has been the form of price regulation most typically used in the United States, well-known defects (some of which have been already discussed) have caused it to be abandoned with increasing frequency in favor of alternative regulatory institutions. Below, we discuss "price

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<sup>22</sup> Supra note 2, p. 29874.

cap" regulation, one of the principal alternatives to cost-of-service regulation.

Historical costs have been employed in rate base determination principally because book values can be calculated with relative ease, based on standard accounting principles and known (or easy to verify) expenditures. One improvement on this method would be to adjust historical costs for inflation. This change would not address all of the concerns with the use of historical costs. It would not, for example, address changes in an airport's value resulting from growth in demand (i.e., a change in relative prices). Yet, allowing historical costs to be adjusted for inflation is likely to result in more efficient pricing of airport services than would pricing based solely on historical costs.<sup>23</sup> It would, for example, lessen the differences in airport rates across similar airports built in different years. Thus, an airline's decision to use one airport as a hub rather than another would no longer be as strongly influenced by the years in which the respective airports were built.

The NOPP also defends historical cost pricing on the grounds that "[h]istoric cost valuation assures that airport users will pay for facilities currently in use, rather than for replacement facilities." id. As the discussion in the preceding section shows, selling or renting assets at prices reflecting replacement

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<sup>23</sup> See, e.g., Gordon, "Comparison of Historical Cost and General Price Level Adjusted Cost Rate Base Regulation," Journal of Finance 32 (1977), 1501-12.

cost does not mean that these payments represent the accumulation of funds for the actual replacement of the asset. More important, however, the failure to use a pricing system that reflects opportunity costs -- in particular, opportunity costs during times of peak demand -- could contribute to greater levels of new airport investment than would be warranted by economic efficiency. When landing fees are set according to historical costs, fees at older airports often will be inefficiently low, resulting in congestion and delays. These delays, in turn, will often spur demands for additional airport capacity that would be otherwise unnecessary if the existing capacity had been priced to reflect opportunity, rather than historical, costs. In their study of optimal runway pricing and investment, Morrison and Winston conclude that "[e]fficient pricing [of airport capacity] alone or in combination with efficient investment would significantly reduce the strain on airport capacity, eliminate the perceived need to limit flight operations, and postpone the expensive construction of new airports."<sup>24</sup>

Morrison and Winston have proposed a method for calculating economically efficient fees for takeoffs and landings that illustrates some important aspects of the replacement cost pricing principle.<sup>25</sup> The Morrison and Winston method is based on the principle that efficient prices reflect the current costs

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<sup>24</sup> Morrison and Winston, supra note 16, pp. 61-112, p. 84.

<sup>25</sup> Supra note 16, pp. 84-99; see also Morrison, "The Equity and Efficiency of Runway Pricing," Journal of Public Economics 34 (1987), 45-60.

of construction, maintenance, and operation, as well as the cost that each takeoff and landing imposes on other users in the form of delay. By accounting for both congestion costs and construction costs, efficient pricing of landings and takeoffs helps guide efficient investment in new runways. As noted by Morrison and Winston, "[i]n the long run, capacity should be added until the extra cost of the added capacity equals the attendant reduction in delay costs. This is the basis for optimal runway investment."<sup>26</sup>

The Morrison and Winston analysis implies not only that economically efficient landing fees would be based on current, as opposed to historic, costs of construction, maintenance and operation costs, but also that efficient pricing would involve "peak-load pricing" in which fees are higher at times of greatest demand. During periods of peak operation (i.e., times at which an airport is operating at full capacity), each additional takeoff or landing delays other planes from taking off or landing. Such delays impose costs on the passengers of planes that must wait in the queue. During off-peak periods in which congestion and congestion related delays are not a problem, each takeoff or landing does not impose delays on passengers of other flights. Since the marginal social costs of a takeoff or landing will be higher during peak periods, the economically efficient price of an operation also will increase during peak periods.

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<sup>26</sup> Supra note 16, p. 85.



Thus, using a peak/off-peak pricing structure would be consistent with economically efficient pricing.

As Morrison and Winston observe, "[a]irport congestion exists largely because of a failure to price the use of, and make appropriate investments in, scarce runway capacity and air traffic control." By establishing a policy in which airport fees are based on historical costs -- costs that do not reflect changes in the general price level over time, changes in the relative prices of inputs over time, or growth and fluctuations in demand -- the FAA may be limiting the ability of airport management to price airport services efficiently. Inefficient pricing of airport services will act further to distort airport investment decisions and, to the extent that replacement costs exceed historical costs, contribute to increased congestion and delays at airports.

The use of a historical cost rate base would not necessarily bar the employment of a peak load pricing system, provided that an airport's revenues under such a system provided no more than a "fair and reasonable" return on the airport's original cost. But it seems likely that this condition would be violated when the benefits from adopting a peak load pricing system are greatest; i.e., when peak demand is high relative to off-peak demand, and when the marginal cost of a peak-period operation is high (e.g., because of congestion-related costs).<sup>27</sup> Under these

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<sup>27</sup> These costs, in turn, are likely to be highest, ceteris paribus, for older airports with limited capacity. These airports  
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circumstances, peak-period prices, and the associated revenues, likely would be high, thus exposing the airport to the risk that its return on original cost would exceed the "fair and reasonable" standard. Equally important, it is difficult to see how efficient peak period prices could be calculated to begin with if the airport is constrained to use a historical cost rate base. As noted above, computing efficient peak load prices (e.g., using Morrison and Winston's method) requires a knowledge of current, rather than historical costs. Only if historical and replacement costs happened to coincide would the use of a historical cost rate base lead to efficient prices.

#### **B. Price Cap Regulations**

Cost-of-service regulation can be a source of economic inefficiency, apart from any inefficiencies arising from the divergence of historical cost from opportunity cost. Four principal shortcomings of cost-of-service regulation have been identified. First, cost-of-service regulation requires a substantial amount of information, most of which must be supplied by the regulated entity. This regulatory process can be administratively costly and subject to manipulation on the part of the regulated entity. Second, regulatory errors in setting the allowed rate-of-return can lead to systematic biases in

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<sup>27</sup>(...continued)  
will also tend to have low book values, which further increases the likelihood that the airport will be deemed to have earned an "unreasonable" return.

capital investment by the regulated firm. Third, rate-of-return regulation provides the firm with little incentive to reduce cost, as any reductions are fully rebated to consumers, thus leaving the firm no better off than if it had continued to operate at higher cost. Fourth, if the regulated entity also sells in unregulated markets, the opportunity for profitable, yet socially inefficient, cross-subsidization is created.<sup>28</sup>

Dissatisfaction with the performance of cost-of-service regulation has induced policymakers to search for regulatory alternatives. Price-cap regulation is one such alternative. Price-cap regulation can be characterized as follows:<sup>29</sup> (1) the regulator sets a price ceiling, but, in contrast to rate-of-return regulation, the firm has discretion to set its prices below this ceiling; (2) the price ceiling is periodically adjusted automatically by a factor that is exogenous to the firm (e.g., an adjustment to reflect overall inflation); and (3) over longer intervals, the ceiling and automatic adjustment factor are subject to review and possible revision.

Price-cap regulation may help mitigate some of the incentive problems attributed to cost-of-service regulation. First, because firms are allowed to retain a portion of their cost reductions, they may have a greater incentive to reduce costs

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<sup>28</sup> For a more detailed discussion, see, e.g., Beesley and Littlechild, "The Regulation of Privatized Monopolies in the United Kingdom," RAND Journal of Economics 20 (1989), 454-72.

<sup>29</sup> See Acton and Vogelsang, "Introduction to Symposium on Price-Cap Regulation," RAND Journal of Economics 20 (1989), 369-72, p. 370.

than under rate-of-return regulation. Consumers might benefit from this action if price cap regulation causes some portion of anticipated cost decreases to be passed on to consumers through a reduction in the cap. The fact that price can be reduced without prior regulatory review provides an added inducement (relative to rate-of-return regulation) to cut price when costs fall. The administrative costs of price-cap regulation are likely to be considerably lower than those associated with rate-of-return regulation, since there is less regulatory oversight. Further, the regulator's informational burden is probably lower under a price-cap regime. Price-cap regulation may also make it easier to develop schemes that provide the firm with an incentive to reveal cost and demand information truthfully to the regulator.

To our knowledge, price-cap regulation has not been used to regulate airport prices in the U.S., but since late 1987 it has been used to regulate prices at four British airports (Heathrow, Gatwick, Stansted, and Manchester).<sup>30</sup> Upon performing a five-year review of the price-cap experiment, the British Civil Aviation Authority concluded that the system had been successful

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<sup>30</sup> The use of price-cap (frequently referred to as "RPI [retail price index] - X" regulation by British authors), regulation was required by the Airports Act of 1986. See Beesley and Littlechild, supra note 22, pp. 458-59, and Vickers and Yarrow, Privatization (An Economic Analysis), 1988, pp. 360-62. The methods used to establish the price-caps are described in considerable detail in a series of reports by the Monopolies and Mergers Commission: BAA plc - A Report on the Economic Regulation of the South-East Airports (1991), ¶¶ 4.107-4.133; and Manchester Airport plc - A Report on the Economic Regulation of the Manchester Airport plc, (1992), ¶¶ 4.32-4.64.

and should be retained.<sup>31</sup> Similarly, the Mergers and Monopoly Commission Reports on price-cap regulation at the London-area and Manchester airports concluded that price-cap regulation should be retained at both sets of airports.<sup>32</sup>

Domestically, price-cap regulation has been used extensively in the telecommunications industry. Mathios and Rogers<sup>33</sup> compared AT&T's rates for intrastate, long-distance telephone service in states that allow AT&T pricing flexibility with its rates in states that use rate-of-return regulation. Their findings suggest that AT&T's daytime, evening, nighttime, and weekend rates were significantly lower in states that allowed

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<sup>31</sup> Christopher Chataway, Chairman of the CAA, has written that "[w]hen we did our first review of the BAA formula [in 1992], we were quickly convinced that we should stay with the RPI-X approach. While the deficiencies of U.S.-style rate-of-return regulation can be exaggerated, we believe it is important to establish the formula on the basis of a measure external to the company if efficiency incentives are to be maintained." See Chataway, "Airports and Airline Competition," in Major Issues in Regulation, Institute of Economic Affairs, 1993.

<sup>32</sup> The South-East Airports Report (supra note 30, ¶ 13.35) concluded that "[t]he balance between RPI-X and rate-of-return regulation may indeed change in the future; but in the context of the present quinquennial review, we believe that the RPI-X form should be retained." The Manchester Airport Report (supra note 30, ¶ 11.36) concluded that "[t]here are insufficient grounds to change the current [RPI-X] approach. We consider, therefore, as does Manchester Airport PLC, that the RPI-X form of control should be retained for the reference quinquennium."

<sup>33</sup> See Mathios and Rogers The Impact of State Price and Entry Regulation on Intrastate Long Distance Telephone Rates, Bureau of Economics Staff Report to the Federal Trade Commission, November 1988; and Mathios and Rogers, "The Impact of Alternative Forms of State Regulation of AT&T on Direct-Dial, Long-Distance Telephone Rates," RAND Journal of Economics 20 (1989), 437-53.

pricing flexibility than in states that used rate-of-return regulation.

The Federal Communications Commission has also used price-caps to regulate AT&T's interstate long distance rates. In its four year review of the performance of this regulatory regime, the FCC concluded that price-cap regulation "represents an improvement over rate-of-return [cost-of-service] regulation, combining lower rates with effective incentives for improved efficiency and innovative services."<sup>34</sup>

## V. Conclusion

The FAA's proposed policy statement recognizes the desirability of using prices to allocate airport capacity efficiently. Section 3.2 of the proposed FAA policy would permit airports to adopt a "properly structured peak pricing system" that would "establish rates and charges that maximize the efficient utilization of the airport." But at the same time, the proposed policy also requires that airport rates and charges reflect assets' historical cost, not their replacement or current cost. Setting prices to cover historical costs may impede efficient airport utilization. Allocatively efficient prices would more nearly reflect assets' replacement cost than their historical cost. If the FAA's goal is to protect consumers from inefficient monopoly pricing by airports, it may wish to consider

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<sup>34</sup> Report In the Matter of Price Cap Performance Review for AT&T, CC Docket No. 92-134, July 23, 1993, ¶ 1.

alternative regulatory policies that do not require prices to reflect historical costs.