



Policy Study

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SELLING LAGUARDIA AND KENNEDY AIRPORTS

by
Robert W. Poole, Jr.

I. EXECUTIVE SUMMARY

New York City faces a serious fiscal crisis. Yet it has failed thus far to consider the possibility of recovering its capital from two of its most attractive assets: Kennedy and LaGuardia Airports.

The two airports are worth some \$2.2 billion, based on recent and proposed sales of other major airports to investors. Under current arrangements, the Port Authority leases the airports and runs them under contract to the City. The City receives an annual lease payment, based on the airports' net revenue, that is substantially less than it would receive in property taxes alone, if the airports were private enterprises on the tax rolls.

Because the PA has paid for the runways and terminals, any proposed sale of the airports would have to compensate the PA for its investment (plus the loss of its future revenue stream from the airports). Consequently, the PA would receive \$940 million of the \$2.23 billion sale price, with the City realizing the remaining \$1.29 billion.

The proposed sale is a substantially better deal for New York than continuing the present lease arrangement. The present value of the City's expected lease revenue stream, over the remaining 25 years of the lease, is \$562 million. By contrast, selling the airports would bring the City not only its \$1.29 billion portion of the total sale price, but a future stream of property-tax and income-tax payments whose present value is \$3.24 billion--nearly six times the present value of the lease.

Privatizing LaGuardia and Kennedy would offer many benefits to New York's air travelers. If bureaucratic (non-safety) rules and regulations were removed (a.g., the Federal Aviation Administration's arbitrary assignment of landing slots and the Port Authority's limitation on long-haul flights at LaGuardia), passengers would receive greater and more competitive airline service. Additional airport investments in local air traffic control

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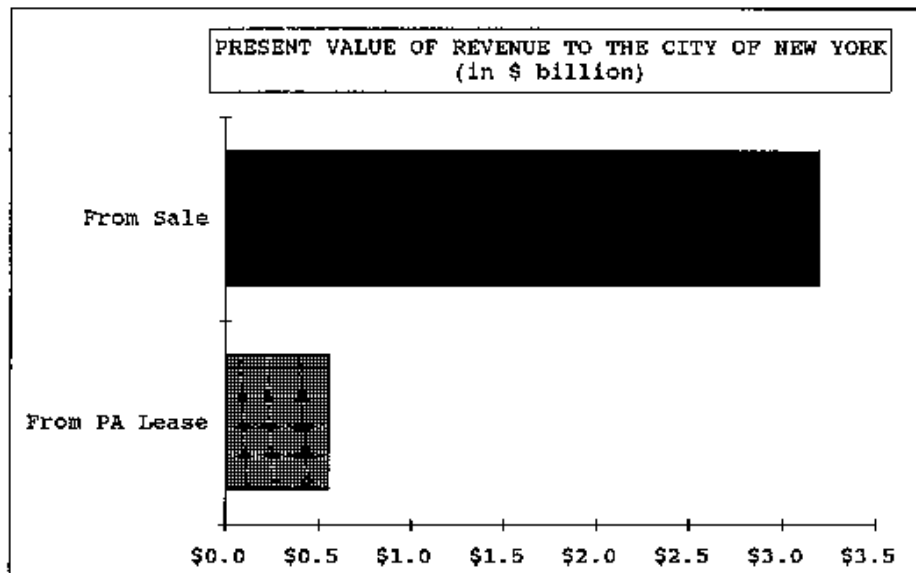
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would lead to reduced peak-hour delays, reduced bad-weather delays, and increased safety. (All FAA safety regulations would remain in effect.) And privatization is also more likely to provide improved ground access, as it is currently doing for London's Heathrow Airport.

Other cities are moving to privatize their airports. London has already done so, Copenhagen and Auckland are doing so, and Albany, Los Angeles, and Philadelphia are considering it. Selling its airport offers a city a way to redeploy its capital to other pressing needs, while improving services to air travelers.



II. INTRODUCTION: NEW YORK'S AIRPORTS

New Yorkers put up with numerous inconveniences for the benefits of living in the nation's largest city. Among these strains are arriving and departing at two of the country's most congested airports, LaGuardia and Kennedy. Both airports suffer from horrendous traffic congestion on the ground, long lines for take-offs at many times of day, insufficient control tower personnel, aging air traffic control equipment, and inadequate and obsolescent terminal facilities. Flight delays increased 111 percent at LaGuardia (LGA) last year and 52 percent at Kennedy (JFK); delays at both airports have continued to worsen in the first four months of 1990.

Both airports are actually owned by the City of New York, but they have been operated by the Port Authority (PA) under a long-term lease since 1947. (Newark airport, similarly, is owned by the city of Newark and operated under lease by the PA). The PA has developed the current runway and terminal facilities at LGA and JFK, investing over \$2.4 billion in the airports over the past four decades. The lease agreement provides that the PA pays the city 75 percent of the two airports' net revenues each year, as the lease payment.

As government-run airports, LGA and JFK are constrained in many ways. Federal aviation policies restrict the airports, as do certain policy decisions made by the PA. Although the PA operates the airports in a more businesslike manner than many municipal airport departments, their operation is quite different from that of ordinary service businesses.

Were the airports free to operate as ordinary businesses--i.e., privately owned, able to charge market prices, and freed of arbitrary internal and external restrictions--New Yorkers would receive considerably better air service. The next two sections sketch out how privatization would deal with many of the airports' problems.

III. IMPROVING LAGUARDIA

The conventional wisdom is that LaGuardia is virtually at its maximum capacity and all that can be done to improve things is to expand the terminals and roadways (the "groundside" capacity) so that the passenger load can be handled more expeditiously. Hence, the Port Authority's (PA's) current \$750 million modernization program, which is doubling the number of lanes of access roads, adding 300,000 sq. ft. of terminal space, and redesigning the baggage-claim areas.

But the conventional wisdom is based on passive acceptance of a number of constraints which might well be removed via privatization. If these constraints were relaxed or removed, LGA could:

- o reduce delays by adding peak-hour capacity;
- o reduce bad-weather delays;
- o increase the degree of airline competition, thereby reducing fares paid by New Yorkers;

- o improve ground access beyond the FA's current plans;
- o increase safety levels.

The following paragraphs explain how these goals could be accomplished.

1. Reduced Delays

One of the main sources of delays at LGA is that demand for landings and take-off slots is greater than the available supply. It is not a law of nature that limits aircraft operations at LGA to 68 per hour (between 6 AM and midnight). That limit is imposed by the Federal Aviation Administration (FAA) under the provisions of its High Density Rule (which also applies at Kennedy, O'Hare, and Washington National). The FAA has made a judgement that LGA's maximum safe level of operations--given current facilities, procedures, and equipment--is 68 "slots" each hour. Hence, increasing the effective number of slots would reduce the extent of routine delays.

One way to increase passenger capacity is to provide incentives for a changed mix of aircraft. The FAA has decreed that 14 slots be reserved for commuter flights and six for "general aviation," i.e., private planes. (Originally, the FAA allocated only six hourly slots to commuters, but this number was increased to 14 in 1985.) Under a market-pricing system, aircraft operators would bid for the right to use specific slots, with slots being leased for specific periods (e.g. one year) to the highest bidders. Under such a system, commuter and general aviation (GA) users would still have a right of access to LGA, but the outcome would probably be a greater number of large airline aircraft per hour than at present. Furthermore, even though LGA is "busy" for nearly all of its 18-hour day, it is less busy outside the peak hours of 7-10 AM and 4-7 PM. Slots at off-peak hours would go for lower lease rates than peak-hour slots, thereby offering lower-cost access for commuter and GA users during those hours.

One way to accommodate additional commuter aircraft is to make use of temporarily available runway space in between airliner take-offs and landings. Since most commuter planes can take off in a few thousand feet, they do not need to use the full 7000 feet of runway. LGA has begun to do this, by sequencing a commuter flight to take off on the balance of R22 after an airliner has landed on it (and before another airliner takes off on the intersecting R13-31). Unfortunately, even though this procedure makes use of otherwise unused capacity and "bleeds off" commuter flights which would otherwise take up scarce slots, the FAA will not let this fact be used to add offsetting airline slots.

Another, more controversial, way to add capacity to LGA would be to further extend the runways' length into Rikers Island Channel, permitting larger-capacity 4-engine jets (e.g., Boeing 747 and Airbus A-340) to serve the airport. This would further increase the passenger capacity of the airport, without increasing the number of aircraft operations, per se. It should be noted that the newest generation of 4-engine jets (e.g. the 747-400) meet the Stage III noise requirements and would have less of a noise impact on neighboring properties than some of today's

smaller DC-9s and 727s which meet only the Stage II limits. A privately owned LGA could limit 4-engine operations to those planes meeting the Stage III requirements; in this way, the noise impact on the community would be reduced by every 4-engine (Stage III) plane that replaced a Stage II 2-engine or 3-engine plane.

2. Improved Bad-Weather Performance

Delays at LGA become much worse in times of bad weather, when visibility is reduced and all operations must be conducted under Instrument Flight Rules (IFR). But more aircraft could be accommodated safely per hour under such conditions were LGA equipped with state-of-the-art landing aids.

A growing number of the world's airports have installed sophisticated landing aids that permit safe landings and takeoffs even under conditions of very low visibility. Unfortunately, the United States has lagged behind other nations (even South Africa!) in this regard. The Air Transport Association noted in a 1985 study that the FAA is "seriously deficient" in upgrading airport landing systems to the level needed for Category II and Category III (virtually blind) landings. And it further noted that during periods of low ceiling and reduced visibility, it is the airport --not the air traffic control system--that becomes the air traffic bottleneck.

This is certainly true of LGA, where bad weather often shuts down one runway and greatly slows the pace of operations on the other. Category II landing equipment could have been installed years ago, significantly reducing bad-weather delays. But the FAA, not the airport management, is responsible for the landing aids and the control tower. And this improvement has simply not been a priority for the agency. For technical reasons, involving the amount of clearance needed on each side of a Cat. II runway, this upgrade of the landing aids cannot be made without relocating the control tower. The FAA is now discussing this with the PA, but the two parties have yet to agree on a preferred new location. Hence, a new tower and upgraded landing aids remain years away.

Under the most widely discussed model of airport privatization, the control tower and landing aids would be divested by the FAA to the airport company (as is the case in Britain). Decisions about upgrading the airport's local air traffic control (ATC) capabilities would become the responsibility of the airport company. The company would have both the motivation to make such upgrades (better service, hence greater revenues) and also the resources at its disposal (from user fees) to make the needed investments.

3. Increased Airline Competition

The present situation in which demand for slots at LGA is greater than supply has led to reduced competition and higher air fares than would otherwise be the case. A study by the Air Transport Association found that fares at LGA and JFK (as well as at O'Hare and Washington National, the other two capacity-controlled airports) are seven percent higher than average. To the extent that the measures discussed in item 1 (above) increase LGA's effective capacity, they would increase airline competition and put downward pressure on fares.

Airlines have learned to use their relationship with airport operators as a tool in minimizing direct competition. At many airports, the incumbent airlines have negotiated long-term leases of most or all available gates, and in some cases have included Majority-in-Interest (MII) clauses in those leases, which grant the existing airline tenants a de-facto veto power over gate expansions that might permit new airlines to begin service.

Fortunately, the PA has done better than the average airport in negotiating with airline tenants. Except for the two airline-developed terminals (Delta and Trump), most LGA leases are on a month-to-month basis, and there are no MII clauses. Unfortunately, however, all but two of the gates are leased on an exclusive-use basis to particular airlines--a wasteful and anti-competitive practice, which would not be in the best interest of a private airport owner.

The lack of available gates, combined with the present FAA slot system (in which slots are legally "owned" by the incumbent airlines, though they were created by the airport's investment) has made it extremely difficult for new, lower-fare entrants such as America West to gain access to LGA. New Yorkers are therefore deprived of the benefits of more aggressive competition (as witness the recent same-day price increases on the two shuttle airlines).

Competition is also artificially restricted by the PA's Perimeter Rule, which restricts service to and from LGA to cities no more than 1,500 miles distant. When challenged in court by Delta Airlines as violating the Airline Deregulation Act's pre-emption of state regulation, this regulation was upheld by the Supreme Court in 1988. The Court held that the rule is not "state regulation" because the PA as the owner of multiple airports serving a single geographic region may legitimately allocate traffic among them. But were the airports owned by separate companies, the PA would have no authority to impose an arbitrary rule limiting which cities could be served by LGA-based flights. Thus, New Yorkers using LGA would have a greater choice of destinations under privatization.

4. Improved Ground Access

Traffic congestion around LGA is horrendous, and the improvements offered by the current roadway expansion will do little more than ease the pain. After more than 40 years of PA operation, LGA is still no closer to being connected to Manhattan (or anywhere else) by rail. This is remarkable in the one city in America where rail transit is the lifeblood of the urban transportation mix. "Intermodalism" was one argument for creating the Port Authority in the first place, but for whatever set of reasons, intermodalism has been a dismal failure in the case of airport access.

In sharp contrast, one of the first major capital improvements being taken by the management of Heathrow airport since its 1987 privatization is the development of a high-speed rail link to central London. In a joint venture with British Rail (which owns the right-of-way), British Airports Authority is developing a \$400

million line to downtown London. BAA (the airport owner) will operate the trains, which will be designed for people with luggage and will include onboard display screens for flight information. Journey time from Heathrow to central London will be cut to just 16 minutes, compared with nearly an hour on the present subway line, which is operated by the municipal transit agency.

BAA has undertaken this project in order to enhance the airport's level of service to its customers. It was a sound business decision, and is being put into practice expeditiously. Privatization offers similar hope to LGA's long-suffering users.

5. Increased Safety

The safety level of operations at LGA depends critically on the quality and quantity of local air traffic control (ATC) resources. Those resources include the controllers in the tower, their electronic equipment, the landing aids (discussed earlier), and the airport radars. At present, all these resources are under the control of the FAA, not LGA's management. Consequently, LGA's safety is held hostage to federal budget pressures and bureaucratic inflexibilities.

For example, the FAA is not permitted under federal civil service rules to pay competitive wages in high cost-of-living areas such as New York City. It has had chronic difficulties attracting and keeping sufficient controllers in this region. Last year the FAA adopted an experimental pay differential program in an effort to attract more controllers. But although the program applied to the regional control center at Islip and the TRACON facility at Westbury, it did not apply to the airport control towers. Hence, before the FAA ran short of money for the program, a number of controllers transferred from the LGA and JFK towers to the other facilities, making the shortage of experienced personnel in those towers that much worse.

The LGA tower is critically short of fully qualified controllers. Only 45 percent of the current work force meets the FPL (full performance level) criterion, meaning that they are able to handle all ATC functions. The rest are, in effect, still on-the-job trainees--in one of the most demanding and stressful jobs in America, and at one of the nation's most congested airports.

Were the tower owned by the LGA company, rather than by the FAA, there is no question that the company would offer pay scales and benefits higher than in other parts of the country, in order to attract sufficient FPL controllers to do the job safely. Both the liability exposure and the desire to serve its customers would motivate the company to do this, and it would have the means to do so by being free of federal civil-service constraints and being able to raise the necessary funds via user charges.

IV. IMPROVING KENNEDY INTERNATIONAL

Kennedy's problems are similar in many respects to those of LaGuardia. But JFK is a vastly larger airport, with four main (non-intersecting) runways and room for modest expansion. While it also suffers from delays, they are concentrated in the period from 2 PM to 8 PM when the majority of flights to and from Europe

take place. JFK has substantial unused capacity, and it could be managed to take better advantage of it. And its current \$3.2 billion expansion of ground-side capacity is open to serious question on grounds of cost-effectiveness.

Privatizing JFK would bring improvements of the same types as discussed above for LGA, but differing in their specifics.

1. Less-costly terminal expansion

The airlines have raised serious concerns about the wisdom of spending \$3.2 billion to expand and modernize JFK's ground-side capacity without doing anything to increase its air-side capacity. Even with the recent revisions to these plans (reportedly involving up to \$1 billion in cutbacks, simplifying the new central terminal and possibly eliminating the proposed people-mover between terminals), it is still questionable on grounds of cost-effectiveness.

Some critics have suggested that the PA's plans ignore the fundamental changes taking place in international aviation. New York is rapidly losing its position as the U.S. gateway city for flights to and from Europe. Many other large cities--Atlanta, Chicago, Dallas, Houston, Miami, Minneapolis, Pittsburgh, St. Louis, and Washington--now have direct, nonstop service to Europe, and smaller hubs such as Charlotte and Raleigh-Durham are gaining such service, as well. Indeed, as European economic unification approaches in 1992, there will be even stronger pressures for more direct service between European cities and numerous American ones.

JFK's traditional domestic-service mainstay was international connecting flights--i.e., feeding passengers from European flights to and from connecting flights to other large U.S. cities. Conventional origin & destination (O&D) service--i.e., flights serving other cities for trips beginning and ending in New York--have traditionally been lower at JFK. Although the PA "believes" that O&D flights are probably becoming a larger fraction of the total (as more international service goes directly to other US cities), it has collected no statistics on this since 1984!

Yet it has embarked on a \$3.2 billion ground-side expansion designed to serve its traditional business. Why invest billions in shuttling passengers to a central terminal and enabling them to ride a people-mover among terminals if JFK's primary future business is going to be O&D traffic? Such a basic change in service patterns, if indeed it is occurring, has profound implications for terminal design and on-airport ground-transportation requirements. To spend \$3 billion on the assumption of business-as-usual has struck some observers as akin to investing huge sums in modernizing steamship terminals in the 1950s--just as ocean liners were being displaced by trans-Atlantic air travel.

It is likely that a private airport operator, without the vast financial resources of the PA to fall back on, would subject future capital investment plans to much sharper scrutiny, to make certain that the spending was a sound investment.

2. Reduced peak-period delays

As an airport with primarily long-haul service, JFK's airline

traffic is dominated by wide-body aircraft (747, DC-10, L-1011, A-300, etc.). Because these aircraft are so large, they generate turbulent air (in the form of vortices) behind them as they take off. Hence, for safety reasons, small planes of the type used by commuter and general aviation (GA) operators must maintain extra time and distance between their landings and take-offs and those of wide-body jets. Mixing small planes and wide-body jets on the same runway significantly reduces that runway's capacity. Yet because runway access is not priced at market value, small planes are mixed with wide-bodies even at JFK's heavily congested peak hours of operation.

Market pricing--i.e., charging a price based not on the weight of the aircraft but on the amount of scarce runway time each plane consumes (during which no other aircraft can be there)--would provide powerful incentives for creating separate, lower-priced runway space for commuter and GA flights. It would also lead to some of this traffic choosing to operate outside the peak hours altogether, or shifting to lower-priced reliever airports in the New York metropolitan area.

The FAA prevents such incentives from being used by mandating that between 12 and 17 of the peak-hour slots (depending on the hour) be reserved exclusively for commuter and GA aircraft. The PA has made a token effort to use pricing incentives, by imposing a \$100 surcharge for GA aircraft (but not commuters) operating between 3 PM and 10 PM. But under true privatization, the FAA slot allocations would be removed and true market pricing would be permitted, thereby leading to shifts in demand for scarce slots, as discussed in the previous paragraph.

There is space at JFK to add a separate commuter/GA runway, so this traffic could be accommodated without reducing the capacity of the main runways. The Air Transport Association proposed in 1985 that a 5000-ft. runway for this purpose be added parallel to and east of the northeast end of runway 4R-22L. Neither the FAA nor the PA has seriously pursued this proposal, and the PA has instead considered building a cargo facility in this area.

Even without adding a separate runway, there are ways to separate certain commuter flights from the wide-body jet traffic on the main runways. Pan Am Express has pioneered what is known as the Separate Access Landing System (SALS). Commuter aircraft with Short Take-off and Landing (STOL) capability (typically, the ability to land or take off in around 2,000 ft.) can be equipped with an on-board flight computer that permits flying pre-programmed approach paths outside normal air traffic space. At JFK and at Washington National, Pan Am Express has been using SALS with Dash 7 aircraft to land on unused portions of existing runways. These 10 landings a day at JFK are exempt from the usual commuter slot limitations--representing a net addition to the airport's capacity. Under private ownership, much stronger incentives would be used to encourage shifts of this sort.

3. Improved bad-weather performance

In contrast with LGA, two of the runways at JFK are equipped with modern, reduced-visibility landing equipment. Runway 4R is equipped for Cat. III landings (down to 600 ft. visibility) and

runway 13L has Cat. II capability (1,320 ft. visibility). But capacity is still reduced significantly during bad weather.

One principal reason for this is that the pair of parallel runways--4L-22R and 4R-22L--can operate simultaneously only during good weather. That is due to FAA requirements that limit simultaneous IFR operations to runways at least 4,300 ft. apart. Runways 4L-22R and 4R-22L are separated by only 2,900 ft. New technology will soon lead the FAA to revise its limit. Quick-Scan radar, now in operational testing at Raleigh-Durham airport, permits safe IFR operations on parallel runways as close as 2,500 ft. Once the FAA issues a new standard based on its experience at Raleigh-Durham, airports will be able to upgrade their radars and improve bad-weather performance accordingly.

Unfortunately, however, obtaining such a radar for JFK would take at least four and as many as seven years. The FAA is subject to numerous budget constraints and conflicting demands from airports across the country. In addition, its procurement process is legendary for being cumbersome and time-consuming. If JFK were privately owned, and responsible for its own ATC functions, it would be able to purchase a Quick-Scan radar as soon as FAA issues its new regulation permitting their use. JFK's users would experience reduced bad-weather delays many years sooner.

4. Better ground access

The PA's \$3.2 billion ground-side expansion fails to provide a rail connection to JFK, though making some provision for a possible future right-of-way to extend the (recently cancelled) JFK Express line two miles to the terminal. Transit Authority president David L. Gunn was quoted in the New York Times as saying about the PA's decision not to include a rail link, "In the long run, it's a bad mistake." As noted in Section III, one of the first major capital expenditures by newly privatized British Airports Authority was to develop a high-speed rail link to central London. While privatization of JFK would not guarantee the addition of rail access, it would certainly lead to a fresh look at ways of improving customer access to the airport, after more than 40 years without action on this matter by the PA.

5. Increased safety

As was discussed in Section III for LaGuardia, the control tower at JFK was not included in the FAA's Pay Demonstration Project, which offered a 20 percent pay incentive for controllers willing to work in high cost-of-living areas such as New York. Consequently, JFK's tower still has a shortage of Full Performance Level controllers, as it has had ever since the 1981 controllers' strike. Were the tower to become part of a privately-owned JFK, the management would quickly move to increase pay scales to attract the full complement of FPL personnel, thereby increasing the margin of safety in this vital portion of the ATC system.

V. SELLING MAJOR AIRPORTS

Five years ago, the idea of selling a major municipal airport would probably not have been taken seriously. But over the past five years, as governments around the world have sold off some

\$185 billion worth of assets and enterprises, airports have joined the list of potential candidates for sale by governments.

As in many other areas of privatization, the British were the first to privatize airports. British Airports Authority had been created (from a number of government departments) as an independent government authority in 1966. It owned and operated Heathrow, Gatwick, and Stansted in the London area and Scotland's Aberdeen, Edinburgh, Glasgow, and Prestwick airports. In 1983, the government announced that BAA would join the list of state enterprises to be sold, and Parliament passed the enabling legislation in 1986. In July 1987, 500 million shares were sold to the public, generating \$2.5 billion (at today's rate of exchange) for the British Treasury. Today, the market values those shares at nearly \$4 billion.

BAA was privatized as a single unit, giving it a near-monopoly on air service in the London area (with three airports), as well as in Scotland (with the other four). Several think tanks had done studies recommending that the three London airports be sold off separately, so that they could compete with one another. But both BAA and the government preferred the monopoly route. BAA was used to being able to allocate traffic among the airports and to cross-subsidize Gatwick and Stansted with earnings from Heathrow. And the government figured that it would get a higher total price from selling the company as a whole.

The concomitant of monopoly, of course, was economic regulation. (BAA's airports are licensed and regulated as to safety by the Civil Aeronautics Authority, just as the FAA regulates our airports for safety.) Wisely, the government did not adopt conventional public utility regulation, which permits the regulated monopoly to earn up to X percent on its installed capital (the "rate base"). Decades of economic study have shown that, in addition to being costly and cumbersome, rate-of-return regulation offers perverse incentives for the utility to over-invest in fixed plant and equipment (since an X percent return on \$5 billion is more money than X percent on \$3 billion).

The British instead opted for a far simpler form of price regulation, called RPI minus X. This means that each airport's aeronautical charges, averaged out per passenger, may increase each year by no more than the Retail Price Index minus a factor determined every five years by the government. For BAA's first five years, X has been set at one. Aeronautical revenues constitute some 40 percent of BAA's income; the remaining 60 percent comes from commercial revenues--duty-free shops, restaurants, parking, ground-transport access fees, etc. These rates are unregulated.

In its first two and a half years, BAA has done very well, as indicated by the increase in its stock value. Its overall traffic levels have continued to increase, and its income per passenger has increased, as well. With the growth in volume, no employees have been laid off. However, productivity has increased, with income per employee up 10 percent in the most recent financial year. Over 90 percent of the employees own shares in BAA, and 45 percent contribute to a company stock savings plan. This year BAA

has introduced bonus schemes based on profits and service standards.

During 1989 two other governments announced plans to sell major airports. The Danish government decided to sell Kastrup, the Copenhagen international airport. And New Zealand's reformist Labor government announced the forthcoming sales of that country's three major airports: Auckland, Christchurch, and Wellington. (Those three airports had been "corporatized" several years ago, in preparation for possible future sale.)

In addition, the Canadian government began reforming its airport policy in 1988, with a program to defederalize its 138 airports. Last year, this program was amended to include the possibility of selling some of these airports, including Toronto's Lester B. Pearson International. In response to that announcement, BAA created a joint venture company, 51 percent owned by a Canadian partner, to seek airport acquisitions.

In the United States, the first serious proposal to sell a municipal airport came from Albany, New York, in 1988. The county executive, James Coyne, facing severe budget pressures, proposed selling the airport as a way of (1) obtaining a one-time infusion of capital, and (2) gaining an annual stream of revenue in the form of property taxes. Offers were received from the local transit agency and from a private consortium consisting of a local firm, British American, and Lockheed Air Terminal. In December 1989 the FAA rejected Albany's proposal, ruling that the proposed sale (and a leasing alternative) were not consistent with its interpretation of federal grant regulations. The county has decided to pursue a lease-management contract, instead.

Two other major cities are currently studying the possible sale of their airports. Los Angeles has a major feasibility study of future airport options under way, for the post-1992 period (when its main airline leases expire). Selling the airport is one of the principal options being considered. Airports director Clifton Moore has said, "The issue is getting the value out of what the city owns. The only practical way to get that money out is to sell or lease the asset over the long term to people with a lot of money, or to form a utility and float stock." In March of 1990, the Philadelphia City Council authorized a study of the feasibility of selling Philadelphia International Airport, for similar fiscal reasons.

The U.S. Department of Transportation has endorsed airport privatization in principle in its National Transportation Policy. Specifically, that document endorses the private ownership and operation of transportation facilities, and encourages the use of market pricing to make the best use of existing capacity. But a specific DOT policy on airport privatization is still being developed.

VI. VALUING NEW YORK'S AIRPORTS

What might Kennedy and LaGuardia be worth, if they were to be sold, to be operated as private businesses? A number of factors would enter into the valuation that investors might put on the

properties, but one certain starting point is to review the sale prices of other large airports.

The only major-airport sale that has actually taken place thus far is that of London's Heathrow and Gatwick, which between them handle 87.5 percent of BAA's passengers. BAA sold for \$2.5 billion (at today's exchange rate); if we take 87.5 percent of this price as the portion paid for Heathrow and Gatwick, that gives \$2.1875 billion as their approximate sale price.

Price estimates have been made for several other large airports. In 1987, Merrill Lynch Capital Markets held discussions with the City of Atlanta about the possible sale of Hartsfield International. The price mentioned in media accounts was \$1.5 billion. Discussions about the sale of the Los Angeles Dept. of Airports' two major airports (Los Angeles and Ontario) have used \$2 billion as a ballpark figure; since LAX accounts for 90 percent of these two airports' passengers, that would put its value at about \$1.8 billion. Most recently, analysts in Europe have estimated that the first 25 percent of the shares of the Copenhagen airport might sell for \$225 million. If so, that would put the whole airport's value at \$900 million.

One way to use these values to derive an estimated value for LGA and JFK is to reduce each price to a functional value that relates to the ability of the airport to generate revenue. Both cable TV systems and cellular telephone systems are bought and sold based on the number of potential customers in their service area. By analogy, other things being equal, airports might be bought and sold based on the number of passengers they handle. The following table compares the above airports on this basis:

| Airport | 1987 Enplanements (millions) | Est. Price (\$billions) | \$ per Enplaned Passenger |
|------------------|---------------------------------|----------------------------|------------------------------|
| Atlanta | 24.0 | \$1.5 | \$62.50 |
| Copenhagen ('89) | 12.2 | 0.9 | 73.70 |
| Heathrow/Gatwick | 27.6 | 2.19 | 79.30 |
| Los Angeles | 21.8 | 1.8 | 82.60 |
| AVERAGE | | | \$74.50 |

The figure of \$74.50 is the average price paid per annual enplaned passenger. This number provides a basis for an initial estimate of the value of LGA and JFK. For 1987, enplanements at LGA were 12.049 million; multiplying this by \$74.50 yields a value of \$898 million. Likewise, for JFK, 1987 enplanements were 14.653 million. This equates to a value of \$1.092 billion for JFK. These numbers, of course, are based on 1987 activity levels. Since 1990 enplanement figures are not yet available, an alternate way to update the numbers to 1990 is to take the 1987 "prices" and adjust them 12 percent upwards to account for inflation since then. That gives a LaGuardia value of \$1.006 billion and a Kennedy value of \$1.223 billion. Together, the two airports may

be estimated as being worth \$2.23 billion.

Some may criticize these estimates as being too low. For one thing, the value of the land may be viewed as being worth considerably more than these values for the entire airports (land plus improvements). Early in 1990, commercial land in the vicinity of LGA was going for values of around \$50 per sq. ft. That would make LGA's 650 acres worth \$1.4 billion. Likewise, land near JFK was selling for around \$27 per sq. ft., making JFK's 4,390 acres potentially worth \$5.16 billion.

What this land-value approach neglects, however, is that under any conceivable sale proposal there would be deed restrictions limiting the use of the land to airport purposes. Those acres would not legally be usable for the kinds of real-estate uses that would justify prices of \$27 to \$50 per sq. ft. Hence, these hypothetical land values are not relevant to estimating these airports' value as airports. In an economic sense, these land-value estimates measure the "opportunity cost" of devoting these lands to airport purposes.

Another factor to take into account is the amount the Port Authority has invested in improvements to the two airport properties. Each year, the PA computes the net value of its investment in the facilities, beginning with that value at the start of the year, adding in new capital investment and subtracting that year's depreciation to produce a year-end total. As of December 31, 1989 the PA's net investment in JFK was \$543.7 million and in LGA it was \$210.6 million. Together, the PA's net investment in the two airports totaled \$754.3 million.

It should be noted in connection with this investment figure that a business is not necessarily worth its book value. Capital investment may be sound or unsound. For example, the federal government invested \$1.5 billion in the \$2.1 billion Great Plains Coal Gasification Plant. After the five participating energy companies defaulted on the government's loan, the best price the Dept. of Energy could get for the plant was \$600 million. On the other hand, numerous companies are valued by the stock market at multiples of their book value, based on their ability to generate high earnings from their invested capital.

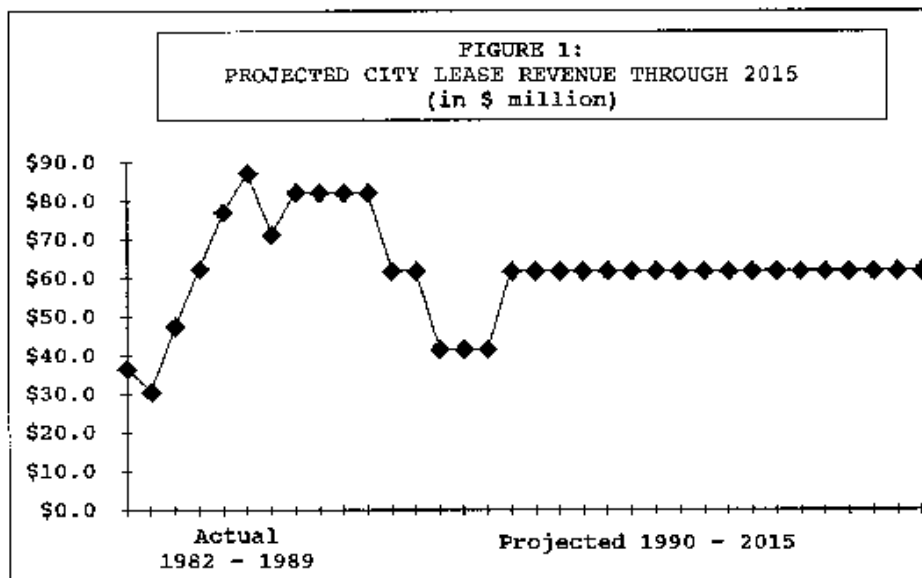
Ultimately, the value of any business is determined by investors' best estimates of what degree of earnings the business will produce. In the case of an enterprise which has been highly constrained by government, such as a major airport, this estimate will depend crucially on what constraints will be put on the enterprise once it has been privatized. The removal of federal restrictions on airport pricing, of arbitrary federal rules (the FAA's High Density Rule) and of local rules (the PA's Perimeter Rule) would all affect the ultimate price that could be obtained for the airports.

VII. POSSIBLE SALE PROPOSAL

The two airports constitute an asset with a probable market value in the vicinity of \$2.23 billion. This asset is jointly

owned by New York City, which owns the land, and the Port Authority, which has built and owns the improvements (they are listed as assets on the PA's balance sheet). How might a sale proposal be structured, so that it would be in the interests of both the City and the PA?

At present, both the PA and the City receive annual streams of revenue from this asset. According to the lease agreement, the computed "net revenue" (gross revenue less operating/maintenance expense, general & administrative costs, and debt service) for each year is split 75/25 between the City and the PA, respectively. Over the past eight years, the net revenue shows a generally rising trend (see Figure 1). However, as the major capital program gets into high gear several years from now, greater expenses will be incurred, leading to a significant fall-off in annual net revenue. The annual average payment to the City over the past eight years was \$61.9 million. Figure 1 projects future annual net revenues to the City, estimated so as to average the same \$61.9 million per year. On this basis, the PA's annual share of the revenue stream would be \$20.6 million.



Another important factor is the PA's net investment (after depreciation) in the two airports. PA figures as of December 31, 1989, give the following as the PA's net investment:

| | |
|--------|--------------------|
| JFK | \$543,715,000 |
| LGA | <u>210,579,000</u> |
| Total: | \$754,294,000. |

The value of the airports to the PA can now be estimated. It is the sum of their book value--\$754 million--plus the present

value of the PA's income stream from the airports. Since the lease runs for 25 years (until 2015), a 25-year time period was used to compute the present value, using a 10 percent discount rate. This yields a present value of \$187 million. Adding that to the book value gives a total of \$941 million.

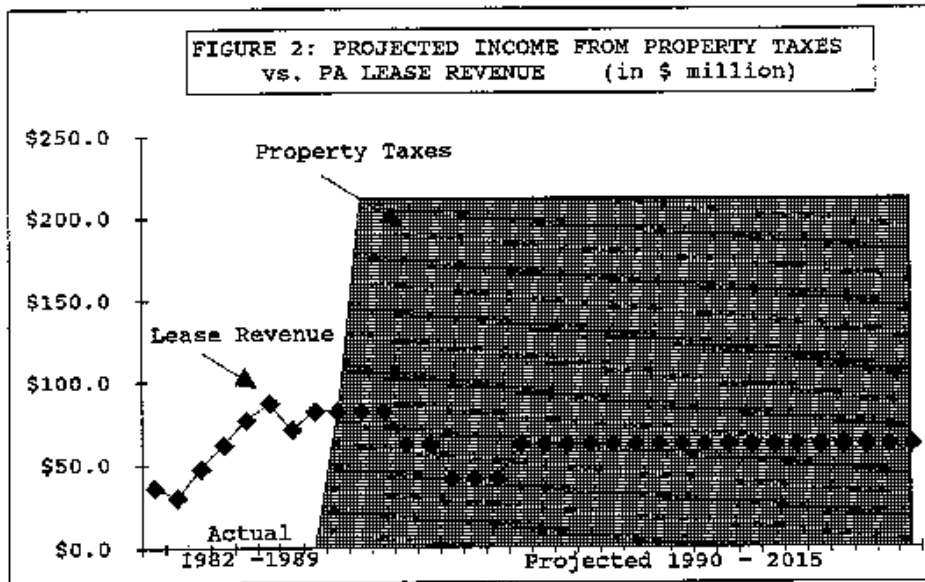
A similar calculation for the City's income stream yields a present value of \$562 million. The remaining number is the asset value of the City's land. From the table below, we can deduce that if the two airports are worth \$2.229 billion, and we know the other components making up this total, then the book value of the City's asset (the land) must be worth the remaining \$726 million. These figures are summarized as follows:

Division of Sale Price Between Port Authority and City

| | (millions) | | |
|---|--------------|----------------|----------------|
| | Port Auth. | NY City | Total |
| Book value of asset | \$754 | \$726 | \$1,480 |
| Present value of income stream (25 years) | 187 | 562 | 749 |
| TOTAL: | \$941 | \$1,288 | \$2,229 |

A mutually beneficial deal might therefore be struck in which the PA receives its portion of the airports' value (its net investment plus the present value of its income stream), totalling \$941 million, and the City receives its portion of \$1.29 billion.

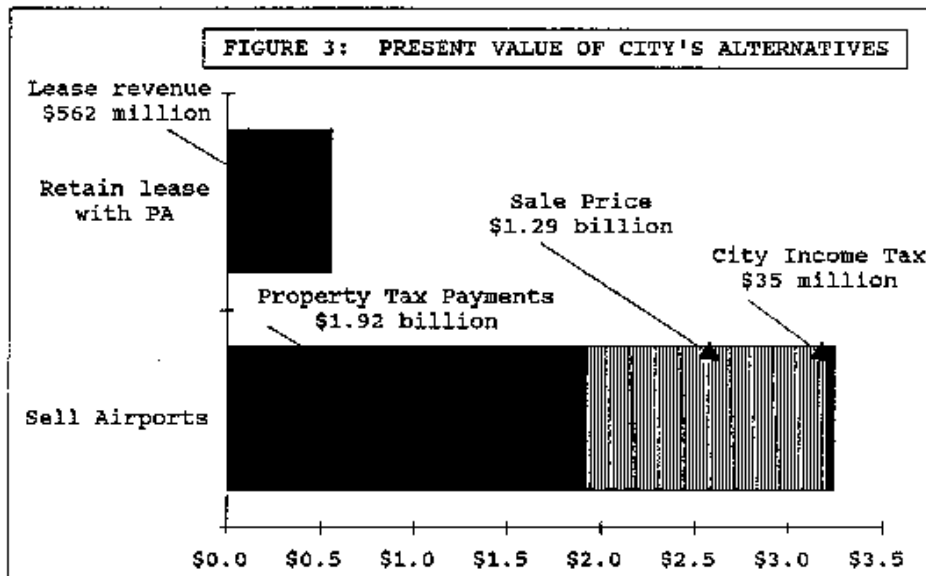
The City would benefit financially to a much greater extent than simply from receiving its share of the sale price. By selling the airports, the City would be returning these valuable properties to the property tax rolls. Hence, in addition to the one-time capital windfall of \$1.29 billion, the City would begin receiving property tax payments on the extensive acreage which comprises the airports. At the current rate of \$9.50 per \$100 of assessed (market) value, these properties worth \$2.23 billion



would generate some \$212 million in annual property tax revenue. That is nearly 3.5 times as much as the City currently receives in annual lease payments (Figure 2).

In addition, the City would receive city income tax revenues from the privately owned airports. Conservatively assuming the same \$44 million of annual average revenues (after depreciation and amortization) that has occurred over the past eight years, and applying the 8.85 percent corporate income tax rate yields an annual tax of \$3.89 million.

Overall, the fiscal benefits to New York City of selling IGA and JFK, compared to retaining the status quo, can be summarized by comparing present values of the two alternatives. For the status quo, we have already calculated the present value of the lease payments as \$562 million. Using the same 25-year period and 10 percent discount rate, we find that under the airport-sale alternative, the present value of the property tax revenue stream is \$1.92 billion, while that of the income tax stream is \$35 million. Adding these present values to the City's portion of the sale price (\$1.29 billion) gives a total present value of this alternative of \$3.24 billion. This is 5.8 times greater than the present value of retaining the status quo (see Figure 3).



There would also be modest fiscal benefits to other levels of government if the airports were privatized. Again, using the conservative figure of \$44 million in annual taxable net revenue, New York State would receive corporate income tax revenues (at 10 percent) of \$4.4 million per year. And at the federal government's 1989 effective corporate tax rate of 26 percent, the U.S. Treasury would receive \$11.4 million per year.

These revenue estimates are probably quite conservative, however. The first two years' financial results of Britain's privatized BAA showed pre-tax operating profits of 24.2 percent for 1987-88 and 17.2 percent for 1988-89, an average of 20.7 percent. In 1989 LGA and JFK had combined gross revenues of \$469 million. If, under privatization, they were able to earn a pre-tax profit of 20 percent, that would be \$94 million. On that basis, the corporate income taxes would be as follows:

| | | |
|----------------|---------|-----------------|
| New York City | (8.85%) | \$8.3 million |
| New York State | (10%) | \$9.4 million |
| US Treasury | (26%) | \$24.4 million. |

VIII. IMPLEMENTATION

The year 1990 is an opportune time for New York City to consider selling its two airports. Not only does the city face a fiscal crisis of considerable dimensions, but it is also already in negotiations with the Port Authority over the terms of the airport lease. The City could raise the issue of terminating the lease and selling the airports in the course of these negotiations.

As the owner of the airports, it is basically the City's decision regarding what to do with them. In 1947, the City decided that the best way to meet the need for modern airports and city revenues was to lease the airports to the PA to be developed and operated. It would certainly be within the City's prerogative to decide that those interests would be better served, 43 years later, by terminating the lease, selling the airports to private enterprise, and reimbursing the PA for its expenditures and loss of future income.

It is strongly recommended that the City sell the two airports separately, so that LGA and JFK would be free to compete with one another, under different management and ownership. This kind of competition would offer air travelers greater prospects of fare reductions, as both airports offered long-haul service (for example) and both became more open to entry by new airlines (as discussed in Section III).

Based on the record of numerous privatizations of government enterprises, there are several possible modes of sale. The City could sell the airports via public stock offering, as the British did with BAA and as the Danes are preparing to do with Copenhagen's Kastrup. A second alternative is the sale to either a single large firm or a consortium of firms. An advantage of this approach is the possibility of gaining the expertise of one or more firms already in the airport business. Yet another alternative, in principle, is a worker-management buyout, though this technique is generally used for smaller enterprises than those at the billion-dollar level. Alternative two is probably the most realistic for LGA and JFK.

Numerous details remain to be researched, regarding possible constraints at the local (City) and state (New York and New

Jersey) level, but an initial review has not identified any insuperable barriers at these levels. The City owns the airports and may choose what it wishes to do with them. The Port Authority must protect its investment, but it is not required by any law to be the operator of the City's airports. The contractual relationship between the City and the PA can be changed if both parties decide that it serves their interests to do so (although it should be noted that the current lease agreement apparently contains no provisions for early termination). In addition, the terms of the PA's existing airport bonds must be reviewed for any constraints which might affect the proposed change in status of the airports.

The more significant potential constraint is at the federal level. Ever since Albany County sought to sell its airport to a private consortium last year, the federal government--specifically the FAA and its parent agency, the Department of Transportation--have been struggling with the issue of airport privatization. Internal and external working groups have discussed and debated the issue since last December, and have thus far failed to provide either a decision with respect to Albany (whose revised proposal calls for a long-term lease-management agreement, rather than an outright sale) or an overall DOT/FAA policy on airport privatization.

Ironically, the core concern of DOT/FAA is one that is not relevant to the New York airports. DOT and FAA do not want local governments to be able to "divert" airport revenue off the airports and into general city budgets. Airports which receive federal airport grants must agree to various "assurances" which include a provision that all airport revenue must remain on the airport. Yet the basic provisions of the City/PA lease agreement already provide for the City to receive 75 percent of net airport revenues as its annual lease payment. These lease terms pre-date the FAA grant language and have therefore been grandfathered in. LGA and JFK have received federal airport grants over the years despite the fact that airport revenues are regularly "diverted" into the City's general-fund coffers. It would be politically quite difficult for DOT to tell New York City that it could not change its policy on running its airports because the change would permit revenues to flow into the City's treasury--when airport revenues have been doing just that since 1947.

The FAA could raise another, related issue: that of the federal investment in LGA and JFK. Over the years, the various airport grant programs (FAAP, ADAP, AIP) have provided approximately \$150 million to JFK and \$105 million to LGA for various capital improvements. The agency might require that these sums be repaid, as a condition of the airports being sold, if the purchaser was not willing to abide by all the grant assurances which have accompanied this aid. This would add a modest sum to the total cost of the transaction, the exact amount depending on how this accumulated investment ended up being valued (e.g., to what extent it would be depreciated).

In addition to these grant funds, the FAA has also invested in the control towers and landing aids at the two airports. Under current law, if the airports were sold, these local ATC facilities would remain with the FAA, and their value would be irrelevant to

the size of the transaction. As noted in the discussions in Sections III and IV, however, some of the benefits of privatization would not be realized unless the control towers and landing aids also passed into private ownership. If federal law were changed to permit divestiture of the local ATC facilities (with the controllers becoming airport employees), there would be additional capital and operating costs to take into account in structuring the financial transactions.

The federal policy environment regarding airport privatization, though somewhat murky as this is written, is likely to be considerably clarified during 1990. What are now some rather large uncertainties and possible barriers may well be cleared away either by administrative action or by legislation, or both, given the growing interest in airport privatization on the part of airport operators, investment bankers, and airport users.

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The analysis for this study was somewhat limited by the Port Authority Finance Department's policy of not releasing certain detailed financial data to the general public, a policy which seems inconsistent with the PA's status as a public body.

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ABOUT THE AUTHOR

Robert W. Poole, Jr. holds B.S. and M.S. degrees in engineering from MIT. He worked in aerospace and for several other think tanks prior to setting up the Reason Foundation (of which he is president) in 1978. Poole is the author of the first full-length book on privatization (in 1980), and has served as a consultant on privatization to the White House and to the President's Commission on Privatization. He is the author of a major policy study on privatizing the air traffic control system (1986) and another on airport privatization (1990). He also serves as an advisor on privatization to the California Department of Transportation (Caltrans).