The air transport sector will require large capital investments over the next fifteen years—by one estimate, US$250 billion to US$350 billion1—to modernize aircraft fleets, improve airport infrastructure, introduce more sophisticated air navigation systems, and meet the demand of new markets in China, Eastern Europe, and the countries of the former Soviet Union and the strong growth in Southeast Asian and Latin American markets. These large investments, together with a redefined role for the state, are transforming the air transport sector.

Traditionally, the air transport sector—airlines, airports, and air navigation services—has been in state hands. The private sector became involved in the sector only recently, beginning with the airlines. By the end of 1995, 70 percent of airlines were privately owned, directly or indirectly. Private sector participation in the airports subsector is just starting, with only two successful cases of complete privatization of airport infrastructure: the U.K. government’s privatization of the British Airport Authority (BAA) in 1987 and of the Belfast International Airport (BIA) in 1994. By the beginning of 1995, however, some form of private sector participation was being implemented or was under consideration in fifty-four countries.

Private sector participation in air navigation is also at an early stage. Several countries, including Germany, New Zealand, and Switzerland, recently corporatized their air navigation services through the creation of corporations with independent financial and legal status, as a step toward eventual privatization through public offerings. And in March 1996, the government of Canada announced its intention to sell the country’s air navigation system for Can$1.5 billion to a not-for-profit corporate entity whose board of directors will include private sector representatives appointed by the federal government and end users.

Consistent with the global trend in other infrastructure sectors, in air transport the state’s role is shifting from owner to regulator and policy-maker, and operational, investment, and management responsibilities are moving to the private sector. The government’s role as economic regulator is particularly important in light of the fact that some airport services are inherently natural monopolies.

The business of airports

The airport business is becoming increasingly multifaceted, extending into real estate, commercial, and other ventures. These activities are of two main types: the provision of airside, or aeronautical, services (runways, taxiways, aprons, terminals)—services that by their nature are still considered monopolistic within each airport—and the provision of landside services (passenger and aircraft services, food and beverage concessions, duty-free shopping, parking, hotels), where a wider variety of suppliers is possible. The current trend in airport economics is to rely on commercial operations to contribute an increasing share to airport revenues,² resulting in less dependence on increases in airside charges. In industrial economies, airside charges are falling in real terms, leading to higher traffic levels and greater airport revenues.³

Private sector options

Private sector participation in airports, through ownership, management, or new investment pro-
grams, can take many forms, including outright sale of shares or assets, concessions, and long-term leases (table 1). Historically, the private sector has managed most of the landside concessions, but governments are now increasingly seeking to involve the private sector in the provision of airside services as well. The goal is to improve efficiency, increase fiscal revenue by selling profitable concessions, and improve infrastructure through privately financed investments.

Although there have been only a limited number of privatization transactions, two options seem to be the most suitable for transferring airport activities to the private sector: (1) build-operate-transfer (BOT) schemes (a project finance mechanism generally used in developing countries, where the priority is new investment to upgrade and expand facilities), and (2) corporatization followed by full or partial divestiture (generally used in industrial countries, where the priority is to obtain privatization revenues and improve efficiency) (table 2). Developing countries trying to promote private sector participation in airports could choose a combination of the two options, beginning with a BOT scheme that gives way to corporatization with full or partial divestiture.

The following paragraphs outline cases of airport privatization in Colombia, Jamaica, Canada, and Northern Ireland.

**Colombia—innovative financing**

At the end of 1993, the government of Colombia corporatized its Civil Aviation Authority (CAA), separating airport operations from air navigation activities. At the same time, it undertook the development of a second runway at El Dorado International Airport in Bogotá, using a BOT scheme for construction and maintenance of the new runway and maintenance of the existing runway. In May 1995, the government awarded the BOT concession, stipulating investments of US$97 million, to the consortium of Ogden, Dragados, and Conconcreto. The concessionaire’s investment and operating costs, fi-
nancing expenses, and profits will be covered by the landing fee revenues, which the CAA will cede during the twenty-year concession. Once bidders had fulfilled the technical requirements, bids were evaluated on the basis of the net present value of the minimum landing fee revenue the bidder would require throughout the concession period (landing fees multiplied by estimated traffic volume) and the weighted average landing fee in U.S. dollars. The government has guaranteed a minimum level of revenues (floor pricing), in a rare case of a government’s accepting commercial risk. If the landing fee structure or traffic volume, or both, cannot support the required revenue stream, the government would compensate the concessionaire from a trust fund equivalent to 30 percent of the annual landing fee revenue. The El Dorado transaction demonstrates the flexibility of BOT schemes and is becoming a model for private sector participation in developing such airside airport infrastructure as runways, taxiways, and aprons.

Jamaica—wraparound mechanism

In an effort to expand airport facilities to accommodate tourist flows, the Jamaican government established three premises to govern airport privatization and expansion: upgrades would be funded primarily by the private sector, airport operations would be transferred to the private sector, and the government would not provide guarantees. Sangster International Airport (SIA) in Montego Bay, the program’s core case, will be expanded through the construction by SIA Ltd., a new company created by the government, of a new passenger terminal under a build-own-operate (BOO) scheme. Airports Authority of Jamaica (AAJ) will transfer, through a forty-nine-year lease arrangement, the operation of the existing passenger terminal and the remaining landside facilities to SIA Ltd. The government will grant a management contract to SIA Ltd. for the operation of the airside services now provided by AAJ. So the new expansion, the existing terminal, and the airside facilities will all be under one management, SIA Ltd.

The financial capital structure for SIA Ltd. calls for funds to be raised on domestic, regional, and international markets. At least 70 percent of the entity’s shares will be held by the private sector, and up to 30 percent by the government. The government plans to sell shares on a phased basis in order to maximize the gains on its investment.

Canada—joint ownership structure

Toronto’s Lester B. Pearson Airport is a rare case both of joint public-private ownership of facilities on shared premises and of competitive provision of airport infrastructure services. Terminals one and two are owned and operated by Transport Canada, the government transport authority, and terminal three, operating since 1991, is

---

**TABLE 2 CONSIDERATIONS UNDER VARIOUS AIRPORT PRIVATIZATION OPTIONS FOR DEVELOPING ECONOMIES**

<table>
<thead>
<tr>
<th>Option</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build-operate-transfer</td>
<td>• Facilitates relatively large new investments</td>
</tr>
<tr>
<td>(or variants, such as build-own-operate and build-own-operate-transfer)</td>
<td>• Maintains government ownership (transfer at a later date limits political conflict)</td>
</tr>
<tr>
<td></td>
<td>• Requires relatively complex procedures and an array of technical and financial specifications</td>
</tr>
<tr>
<td></td>
<td>• Lack of ownership rights could make raising capital funds more difficult and costly for private sector investors</td>
</tr>
<tr>
<td>Full or partial divestiture through a public offering, capital markets, a trade sale, or a combination</td>
<td>• Generates fiscal revenues</td>
</tr>
<tr>
<td></td>
<td>• Full divestiture limits state intervention</td>
</tr>
<tr>
<td></td>
<td>• Public offering requires track record of profits and audited financial statements</td>
</tr>
<tr>
<td></td>
<td>• Public offering requires developed capital markets (rare in developing economies)</td>
</tr>
</tbody>
</table>
The Note series is an open forum intended to encourage dissemination of and debate on ideas, innovations, and best practices for expanding the private sector. The views published are those of the authors and should not be attributed to the World Bank or any of its affiliated organizations. Nor do any of the conclusions represent official policy of the World Bank or of its Executive Directors or the countries they represent.

Comments are welcome. Please call the FPD Note line to leave a message (202-458-1111) or contact Suzanne Smith, editor, Room G8105, The World Bank, 1818 H Street, NW, Washington, D.C. 20433, or Internet address ssmith7@worldbank.org.

Printed on recycled paper.

Privatizing Airports—Options and Case Studies

owned by the Terminal Three Limited Partnership (TTLP). Terminal three is operated under a management contract by Lockheed Air Terminal of Canada Inc. (LATC), and it was developed under a build-own-operate-transfer (BOOT) arrangement that includes a sixty-year renewable land lease contract. The development cost for the terminal, which has capacity for 10 million to 12 million passengers, was about Can$570 million.

Transport Canada coordinates activities between Lester B. Pearson’s privately and publicly owned terminals. It also provides air navigation services, owns all runways and taxiways, and receives all revenues from landing fees, passenger fees, airline fuel taxes, and ticket taxes. LATC controls the landside activities for terminal three, which begin when aircraft switch from general to terminal three tower control. While airside charges for terminals one and two are purely on a cost-recovery basis, terminal three generates revenues through airline rents and charges (aircraft taxiing and parking, and terminal fees), concessions, and parking to cover not only higher operating costs and capital costs but also profits. The market is segmented: the average per passenger airside charges at terminal three are twice as high as those at terminals one and two, and the more prestigious international carriers tend to use terminal three, while lower-cost regional or local carriers use the others.

Northern Ireland—public security concerns

The privatization of Belfast International Airport (BIA), one of the two cases of full airport divestiture, illustrates the complexity of dealing with national security matters in a geopolitically sensitive context and the government’s creativity and determination in coming up with viable solutions. The winning bid came from a management and employee buyout team (MEBO Co.), which purchased the Northern Ireland Airports Limited (NIAL) public corporation, entrusted with operating BIA, for about US$72 million. The airport contract was awarded to MEBO Co. in July 1994, and all the share capital in NIAL was transferred to MEBO Co. except for a golden share of £1. The Department of the Environment for Northern Ireland (DOE) retains ownership of the golden share, which allows it to exercise power in instances related to matters of security and the public interest. In addition, under leasehold control over the 999-year lease agreement between NIAL and the DOE, the DOE and the Ministry of Defence are authorized to enter airport land if NIAL fails to honor its obligation to provide facilities and access to the Ministry of Defence.

Since privatization, passenger traffic through the airport has increased by 17 percent, cargo freight by 17 percent, and turnover by 13 percent—no doubt helped by the cease-fire accord in Northern Ireland.

The challenge

The limited experience with airport privatization—especially in developing countries—makes it hard to draw firm lessons. There is no doubt, however, that governments will be unable to fund all the necessary investment in airport and air navigation infrastructure, and that the private sector will therefore play an increasing role in meeting the sector’s needs. The challenge for developing economies is to find creative mechanisms to foster private sector participation in markets where traffic has not yet reached a lucrative threshold or transaction risks are perceived to be higher than normal.


At a March 1995 airport conference in East Asia, an official of the International Civil Aviation Organization commented that “airports today could be viewed as large shopping malls with aircraft access gates instead of street exits.”

The Economist, in an article titled “Why Heathrow Is Hell” (August 26, 1995), argued that, theoretically, it is perfectly possible for increasing commercial revenues to obviate the need for aeronautical charges, which, in turn, could saturate an airport’s operating capacity.

For more details, see Ellis J. Juan, “Airport Infrastructure: The Emerging Role of the Private Sector—Recent Experiences Based on 10 Case Studies,” CIS Discussion Paper Series 115 (World Bank, Co-financing and Financial Advisory Services Department, Washington, D.C., 1995).

Because of the relative age of its terminals, Transport Canada does not include capital costs in the calculation of airside charges.

Ellis J. Juan, Senior Privatization Specialist, Private Sector Development Department (email: ejuan@worldbank.org)