

# Viewpoint

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## Private Participation in the Airport Sector—Recent Trends

### 19933

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During the 1990s private sponsors have participated in projects involving eighty-nine airports in twenty-three developing countries, with investment totaling US\$5.4 billion.<sup>1</sup> About three-fifths of this investment was carried out in 1998 alone, and about two-fifths related to the award of the Argentine airport system in 1998, which attracted US\$2 billion in investment commitments (figure 1).

Private interest in the airport sector has been spurred by the growth in air transport and airport revenues fueled by deregulation and the establishment of “open skies” agreements among countries. Airport revenues are denominated largely in foreign currency and operational costs mostly in local currency, which provides a hedge against currency risk, facilitating project financing. Revenue security has also been enhanced by the limited competition most devel-

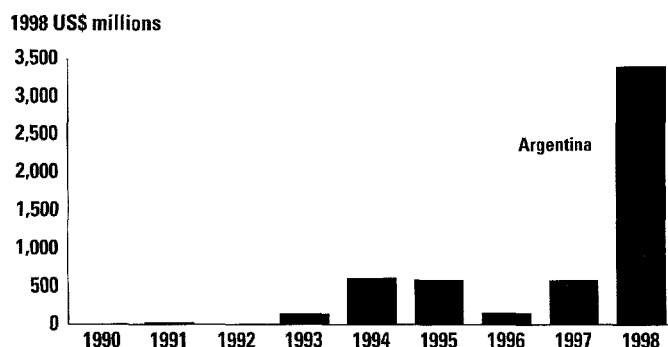
oping country airports face from other airports and from other modes of transport. Motivating governments’ interest in private participation have been a desire for increased efficiency and service quality at airports and the constraints on public sector budgets at a time that changes in aviation technology and growing demand for air travel are increasing investment requirements.

This Note, which draws on the World Bank’s Private Participation in Infrastructure (PPI) Project Database, analyzes the patterns in airport projects with private participation that reached financial closure in 1990–98 (box 1). The database covers projects with potential natural monopoly elements: construction or rehabilitation and operation of facilities required for take-off and landing, traffic control towers, and passenger and cargo terminals. Separate concessions for shopping areas, restaurants and lodging, and similar services are excluded.

Private participation in the airport sector is still in the early stages and has attracted less investment than privately sponsored projects in other transport segments. Still, initial patterns have emerged:

- Operations and management contracts with major capital investment have been the main vehicle for private participation.
- Projects involving both terminals and runways have been more common than those involving unbundled facilities.
- Transferring airport networks to private sponsors has become a common alternative to awarding single airports or stand-alone facilities.
- Latin America and the Caribbean has led developing regions in private participation in the airport sector.

**FIGURE 1 TOTAL INVESTMENT IN AIRPORT PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES, 1990–98**



Source: PPI Project Database.





## BOX 1 PPI PROJECT DATABASE: PROJECT CRITERIA AND DATABASE TERMINOLOGY

### Database coverage

- Projects that have reached financial closure and directly or indirectly serve the public.
- Projects in water, transport, electricity, telecommunications, and natural gas, but excluding movable assets, incinerators, stand-alone solid waste projects, and small projects such as wind-mills.
- Low- and middle-income developing countries, as defined and classified by the World Bank.

**Definition of private participation.** The private company must assume operating risk during the operating period or assume development and operating risk during the contract period. A foreign state-owned company is considered a private entity.

**Definition of a project unit.** A corporate entity created to operate infrastructure facilities is considered a project. When two or more physical facilities are operated by the corporate entity, all are considered as one project.

### Project types

- **Operations and management contract.** A private entity takes over the management of a state-owned enterprise for a given period. This category includes management contracts and leases.
- **Operations and management contract with major capital expenditure.** A private entity takes over the management of a state-owned enterprise for a given period during which it also assumes significant investment risk. This category includes concession-type contracts such as build-transfer-operate, build-lease-operate, and build-rehabilitate-operate-transfer contracts as applied to existing facilities.

- **Greenfield project.** A private entity or a public-private joint venture builds and operates a new facility. This category includes build-own-transfer and build-own-operate contracts as well as merchant power plants.
- **Divestiture.** A private consortium buys an equity stake in a state-owned enterprise. The private stake may or may not imply private management of the company.

**Definition of financial closure.** For greenfield projects, and for operations and management contracts with major capital expenditure, financial closure is defined as the existence of a legally binding commitment of equity holders or debt financiers to provide or mobilize funding for the project. The funding must account for a significant part of the project cost, securing the construction of the facility. For operations and management contracts, a lease agreement or a contract authorizing the commencement of management or lease service must exist. For divestitures, the equity holders must have a legally binding commitment to acquire the assets of the facility.

**Recording of investments.** Investments and privatization revenues generally have been recorded on a commitment basis in the year of financial closure (for which data are typically readily available). Actual disbursements have not been tracked. Where privatizations and new investments are phased and data were available at financial closure, they are recorded in phases.

**Sources.** World Wide Web, commercial databases, specialized publications, developers, sponsors, and regulatory agencies.

**Contact.** The database is maintained by the Private Participation in Infrastructure Group of the World Bank. For more information contact Shokraneh Minovi at 202 473 0012 or [sminovi@worldbank.org](mailto:sminovi@worldbank.org).

## Operations and management contracts with major private capital expenditure in the lead

Outright privatization of airports often meets political resistance, as airport assets tend to be seen as strategic for national security. Thus operations and management contracts with major capital expenditure have been the most common way to involve the private sector, accounting for about 70 percent of the investment in airport projects with private participation (table 1).

Few greenfield projects have been implemented; they account for only about 10 percent of the investment in private airport projects. Other than the new passenger terminal in Hungary's main airport, greenfield projects have involved either stand-alone cargo terminals or secondary airports. Build-own-operate-transfer (BOOT) arrangements were used for the construction of three new airports in Egypt and the passenger terminal in

Hungary. Build-own-operate (BOO) contracts were used for two small airports in India and Thailand and four new cargo terminals in the Czech Republic, Hungary, Kenya, and Peru.

Divestitures have attracted about 20 percent of the investment in airport projects with private participation, but only two of the seven partial privatizations have involved private management of the facilities (the Russian Federation and South Africa). In China and Poland state-owned operators have raised funds for airport rehabilitation or expansion through public stock offerings, but have nevertheless continued operating the facilities.

Operations and management contracts without major capital investment have been scarce. Only two Colombian airports and the Madagascar airport system have involved this type of contracting. The paucity of these schemes may result from governments' interest in private sector engagement primarily as a way to raise funds for infra-

structure rather than as a preferred approach to management.

### Few stand-alone runways

Most projects have involved terminal and runway facilities or terminal facilities alone (table 2). Projects involving terminals are attractive to private sponsors because they offer potentially large "non-aeronautical" revenues. While aeronautical or traffic revenues originate from passenger fees, aircraft landing and parking fees, and cargo and luggage handling fees, nonaeronautical revenues come from commercial services. Since airports have been seen as facing only limited competition from other airports and transport modes, traffic fees have generally been subject to price regulation. By contrast, nonaeronautical activities offer unregulated, often large revenue streams, which are highly attractive to private sponsors. Concession fees from these activities often accrue to private airport operators.

Except for projects implemented in Africa in the early 1990s, all airport projects involving terminals have granted private sponsors the right to raise revenue by selling concessions for commercial activities (such as restaurants, parking facilities, and duty-free shops). On average, these projects derive about half their revenue from nonaeronautical services.

Only two projects involving runways alone have been implemented, in China and Colombia. Although stand-alone runway projects rely mostly on aeronautical activities for revenue, regulation of traffic fees only partially explains their scarcity. The environmental problems associated with the size and location of runway projects, and the ability to absorb growth in air traffic by using larger airplanes and higher load factors, have led many airport authorities to focus on relaxing curfews or building new terminals rather than simply adding runways.<sup>2</sup>

### Network projects more common

Awarding airport networks to single private operators has become more common in recent

**TABLE 1 TOTAL INVESTMENT IN AIRPORT PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES BY TYPE OF PROJECT, 1990-98**

Type	Total investment (1998 US\$ millions)	Share of total investment in sector (percent)
Divestiture	1,102.5	20.3
Greenfield	540.4	9.9
Operations and management with major capital expenditure	3,801.9	69.8
Operations and management	0.0	0.0
<b>Total</b>	<b>5,444.8</b>	<b>100.0</b>

Source: PPI Project Database.

**TABLE 2 TOTAL INVESTMENT IN AIRPORT PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES BY SEGMENT, 1990-98**

Segment	Total investment (1998 US\$ millions)	Share of total investment in sector (percent)
Terminals and runways	3,997.3	73.4
Terminals alone	995.2	18.3
Runways alone	452.3	8.3
<b>Total</b>	<b>5,444.8</b>	<b>100.0</b>

Source: PPI Project Database.

**TABLE 3 TOTAL INVESTMENT IN AIRPORT NETWORKS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES, 1990-98**

Country	Year	Airports	Total investment (1998 US\$ millions)	Share of total investment in sector (percent)
Argentina	1998	33	2,000.0	36.7
Bolivia	1996	3	104.0	1.9
Cameroon	1993	7	34.8	0.6
Madagascar	1991	12	0.0	0.0
<b>Total</b>	<b>n.a.</b>	<b>55</b>	<b>2,138.8</b>	<b>39.2</b>
<b>All airports with private participation</b>	<b>n.a.</b>	<b>89</b>	<b>5,444.8</b>	<b>100.0</b>

n.a. Not applicable.

Source: PPI Project Database.

**TABLE 4** TOTAL INVESTMENT IN AIRPORT PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES BY REGION, 1990–98

Region	Total investment (1998 US\$ millions)	Share of total investment in sector (percent)
East Asia and the Pacific	1,243.1	22.8
Europe and Central Asia	1,153.6	21.2
Latin America and the Caribbean	2,450.3	45.0
Middle East and North Africa	197.7	3.6
South Asia	137.6	2.5
Sub-Saharan Africa	262.5	4.8
<b>Total</b>	<b>5,444.8</b>	<b>100.0</b>

Source: PPI Project Database.

years. Of the eighty-nine airports with private participation, fifty-five in four countries were awarded as network projects, accounting for about two-fifths of the investment in airport projects with private participation (table 3). Other network projects are expected in the near future, notably in Latin America and the Caribbean. The Dominican Republic and Mexico transferred sections of their airport networks to private sponsors in 1999, and Guatemala and Honduras are expected to do the same in coming years.

The potential benefits from scale economies and from financing less profitable airports have been the main argument for transferring airport networks as a whole to the private sector. Still, it is unclear whether these benefits are greater than those that could be derived from introducing competition for individual facilities, hubs for cargo and passenger operations, overlapping hinterlands, and transparent subsidies for less attractive airports.

In Cameroon private sponsors made commitments to finance both profitable airports and secondary facilities that have traffic flows too small to break even but are essential for integrating areas inaccessible by other transport modes. By contrast, in the Argentine and Bolivian networks only financially sustainable airports have been awarded to private sponsors; unprofitable airports have been financed through the concession fees for the profitable ones.

## Most private investment in Latin America

Private participation in airports has been concentrated in three regions: Latin America and the Caribbean, East Asia and the Pacific, and Europe and Central Asia (table 4). Latin America has dominated in investment. Within Latin America, Argentina has dominated, with the transfer of its airport system to private sponsors in 1998 accounting for four-fifths of the investment commitment in the region. Private participation has also occurred in Bolivia, Chile, Colombia, Peru, Uruguay, and Venezuela. Latin America's experience with private participation in other infrastructure sectors, and the regulatory framework and implementation expertise that resulted, have facilitated private involvement in airport projects.

Private airport projects in East Asian countries—China, Cambodia, and Thailand—have attracted about a quarter of the investment in the sector. In Europe and Central Asia investment in private airport projects has been concentrated in the Czech Republic, Hungary, and Turkey.

## Conclusion

Although public provision of airport facilities and services remains dominant, the prospects are strong for growth in private participation in airports. The steady expansion in air transport combined with the revenue security and limited competition in the sector can be expected to continue to attract private participation in airport projects. Several countries, notably in Latin America, have announced plans to carry out projects in the near future.

<sup>1</sup> All dollar amounts are in 1998 U.S. dollars. The PPI Project Database records total investment in infrastructure projects with private participation, not private investment alone.

<sup>2</sup> Load factor is the percentage of available seats paid for and occupied in an airplane.

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