

## **Public Private Partnership Model for Airport Investments in Turkey: The Case of Ankara Esenboğa International Airport Build Operate Transfer (BOT) Project**

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### **Abstract**

Airport privatisation in the world has evolved since the 1980s from the outsourcing of services to public private partnerships. This evolution has been necessary because the demand for aviation has been in a state of constant growth and will continue to grow indefinitely. The privatization of airports in Turkey follows the same trend as in the world beginning with public-private partnership (PPP) model executions. This paper aims to give a brief history on privatisation in the world and in Turkey and sets out to look at the successful case of Ankara Esenboğa International and Domestic Airport BOT Project.

### **Keywords**

Airport, Public-Private Partnership (PPP), Build Operate Transfer (BOT), Ankara Esenboğa International and Domestic Airport

### **1. Introduction**

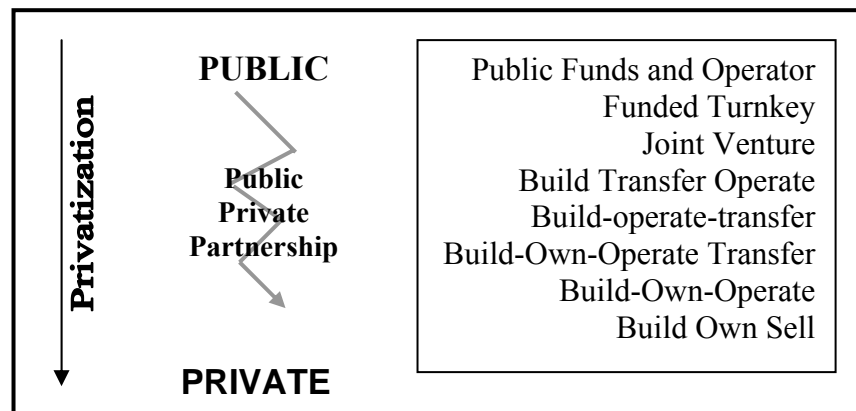
In recent years, a growing trend emerged among governments in many countries to solicit investments for public projects from the private sector. The main reasons for this trend are a shortage of public funds and a hands-off approach of government agencies. The Build Operate Transfer approach (BOT) is an option for the government to outsource public projects to the private sector. With BOT, the private sector designs, finances, constructs and operates the facility and eventually, after a specified concession period, the ownership is transferred to the government. Therefore, BOT can be seen as a developing technique for infrastructure projects by using private initiative and funding. Such infrastructure projects include a wide array of public facilities with the primary function to serve public needs, to provide social services and promote economic activity in the private sector. The most common examples are roads, bridges, water and sewer systems, airports, ports and public buildings (Vaughan and Pollard, 1984).

Design-build is a one-stop shop for design and construction. Architects and contractors work under one contract, where total responsibility for all stages of the project is placed with both parties. Design-build projects are often of limited sophistication, but hold considerable promise for the future as a partnership process of project delivery. Bridging allows the separation of schematic design from design development, with the latter grouped together with the general contractor. Such a project delivery scheme allows for more sophistication and for transfer of design across geographical and economic boundaries. With turn key contracts, the owner buys a package of site, design and finished building, while the developer secures financing, manages the project flow and coordinates the architect and the contractor.

The first official private facility development under the name “Build-operate-transfer” (BOT) was used in Turkey in 1984 by Prime Minister Özal, as part of an enormous privatization programme to develop new infrastructure. However the BOT approach was used as early as 1834 with the development of the Suez Canal. This revenue-producing canal, financed by European capital with Egyptian financial support, had a concession to design, construct, and operate assigned to the Egyptian ruler Muhammad Ali Pasha (Levy, 1996).

By the mid-twentieth century, the privatization of public facilities had experienced a downturn as the development of infrastructure projects by private funds gained popularity throughout the world, particularly in the United States. The increase in road traffic resulted in an urgent need for developing highway facilities and this prompted the government to increasingly use more private funds.

In Europe, however, infrastructure projects remained under governmental jurisdiction as they were considered public requirements the state had to provide. Since the 1980s, the attitude of European countries has changed to include more privatization in their infrastructure development, especially in France and Britain where privatization was extensive, in order to fulfill public needs. At the same time, Asia was experiencing an economic boom that opened the doors for new forms of project delivery, based on the principle of privatization. (Menheere and Pollalis, 1996)



**Figure 1: Public and Private Involvement**

## 2. Airport Privatization

Competition in the airport industry, due mainly to the changes which are continuing to take place, has been growing for some time. This expansion in the market has meant that large investment programs are required to meet demand for air travel. Though trends point to continued enlargement, city authorities and other governmental bodies which have limited funds designated for transportation are unwilling and many a time unable to back airport enlargement projects.

Traditionally airports, and to some extent airlines, are regarded as being public utilities due mainly to the fact that they were seen as integral parts of national transportation systems. This attitude placed commercial aspects of the airport business behind handling and operational aspects in terms of importance and accordingly property and assets were publicly managed with the occasional outsourcing of commercial activities. This structure makes economic regulation all but redundant.

Governments often tend to become wary of the economic implications attached to the continued financing of airports and thus the sustainability of the classic model of airport management becomes an issue.

Although this unsustainable picture is all too common a majority of airports, for a long period of time, have still continued to operate following this model. It was only in the 1980s that this model began to experience some levels of change. Rather than being seen as part of the public infrastructure of a state, governments' views on the airport industry moved towards a more profit based model, where potential profit brought about by efficient commercial, operational and handling management is seen as a major contributor to a state economy.

Privatisation brings with it many potential economic gains ranging from; better choices in investment, to new, more consumer oriented marketing expertise and approaches to management, to the improvement of operating efficiency through the implementation of measures aimed at increasing revenues and reducing costs.

Despite all of the potential benefits attached to it, privatisation still requires a level of management from public authorities due to the amount of risk involved. Public interests need to be safeguarded against negative effects which may arise from the strengthened market position which the private operator will gain. Before privatisation takes place regulations concerning spatial planning, noise, quality, safety and charges should be put in place by an independent body.

Historically, the evolution of aviation has influenced the role of airports in their respective communities. In the early days of aviation, it was an economic necessity for local and national governments to assume the burden of providing the needed funding for the development of aviation facilities. Often the development of an airport was seen as a means of encouraging local and regional growth or building local status or national pride.

### **3. A Successful BOT Project: Ankara Esenboğa International Airport**

In Turkey, due to the rapid increase of air traffic, since the beginning of 1990, there were various attempts for a BOT structure for airports. The first priority was for the Istanbul Ataturk Airport which was the major airport in Turkey with the highest growing potential in the coming years. In 1997, the successful BOT tender was awarded to TAV Airports Holding with a 3 years 8 months and 20 days Operation period for the specified investment. This project was one of the best examples for the implementation of a BOT airport projects in the region.

Ataturk Airport International Terminal was constructed under the Build-Operate-Transfer model in a record-breaking 22 months. The project model allowed the time gained from the committed construction period to be added to the operation period; which was 8 months more operation period in this case and that situation gave a great deal of incentive to the company for fast-track delivery. The terminal went into service in January 2000 and was expanded in 2004 with the construction of an additional facility. The International Terminal and the Multi-storey Car parking consist of 500.000 m<sup>2</sup>.

TAV Airports Holding has won the following concession of Istanbul Ataturk Airport International and Domestic Terminal in July 2005 for another 15,5 years at the end of the BOT period. With a major investment in 2006 included in the concession agreement with the State Airports Authority (Devlet Hava Meydanları İşletmesi (DHMI)), the 25 year-old Domestic Terminal was modernized with new technological systems and underwent comprehensive renovations including its appearance. With its architecture, rapid passenger flow and service quality, İstanbul Ataturk Airport is not only Turkey's largest airport, but is one of the most commended and important airports throughout Europe. In addition, Ataturk Airport is catering to its passengers and their families and friends with the largest parking lot in Europe under a single roof.

Following the successful BOT tender and construction of İstanbul Ataturk International Airport, the government has decided to forward the same example to other airports in the country.

In September of 2004, TAV Airports signed the contract for the construction and operation of new international and domestic terminals at Ankara's Esenboğa Airport. The contract called for a construction period of 36 months plus 15 years and 8 months of operation for the specified investment in the BOT concession agreement. It would be the first time in Turkey that both international and domestic terminals would be built under one roof.

**Table 1: Fact Sheet for Ankara Esenboğa International and Domestic Airport Project**

Terminal Design Capacity:	10,000,000 passengers per year
Terminal Building Area:	183,135 m <sup>2</sup>
Apron Area:	253,744 m <sup>2</sup>
Car Park Area:	120,000 m <sup>2</sup>
Car Park Capacity:	4,050 vehicles
Passenger Boarding Bridges:	19 units
Boarding Gates:	18 units
Check-in Counters:	102 units (Cute workstations)
Passport Control Counters:	36 units
Ticket Sales Counters:	14 units
Elevators:	38 units
Escalators:	38 units
Travelators:	266 linear meters (8 units)
Baggage Claim Carousels:	9 units
Baggage Handling System Capacity:	8,000 baggage items per hour
Total Construction Period:	24 months

The BOT Project and contract structure is more complex than the general construction projects and contracts (Figure 2). In the case of Ankara Esenboğa Airport BOT project the main agents were the Client which is the State Airports Authority (DHMI); the Project Company which is TAV Esenboğa; the Contractor which is TAV Construction Co. the Lenders (i.e., the Financers or the Facility Agents) where HVB (HypoVereinsbank) is the Mandated Lead Arranger; the Technical Advisor which is Mott Macdonald and the other agents including the Third Party Quality Assurance; the Author of the architectural project, the legal advisors , suppliers and subcontractors.

The complexity in the nature of the project evolves difficult contractual procedures. The EPC (Engineering Procurement Construction) contract for such a BOT project has higher liabilities for the contractor than in general FIDIC contracts. On the other hand once a successful contract signing is achieved the procedures are straightforward to follow and the project has a very high initial momentum; which enables fast progress with respective timing of finance.

The high standards of all stakeholders in the BOT projects enables both the construction and operation to be performed in high quality while considering environmental needs in the highest level.

The construction of the project began on September 24, 2004 and was completed on October 13, 2006, one year ahead of schedule. Consequently, the extra year was added to the operation agreement, extending it to 16 years and eight months as was the case for the İstanbul Ataturk Airport BOT project (Figure 3).

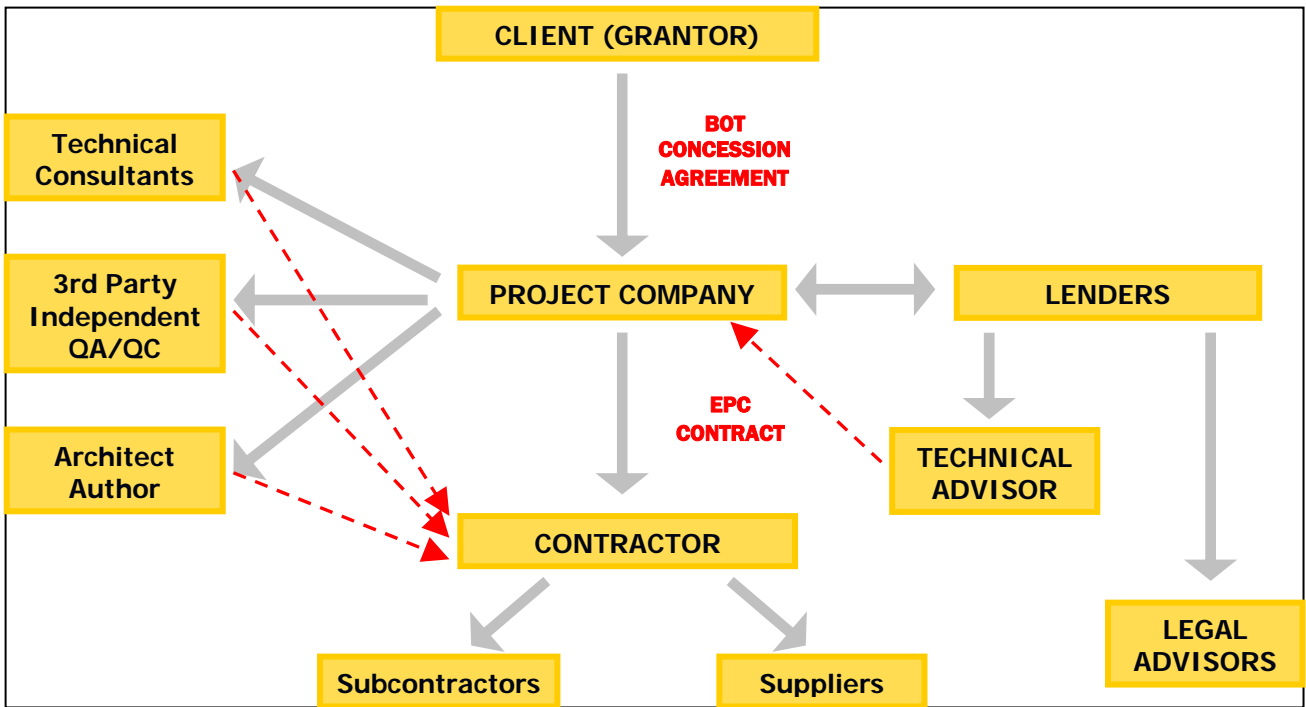


Figure 2: BOT Project and Contract Structure

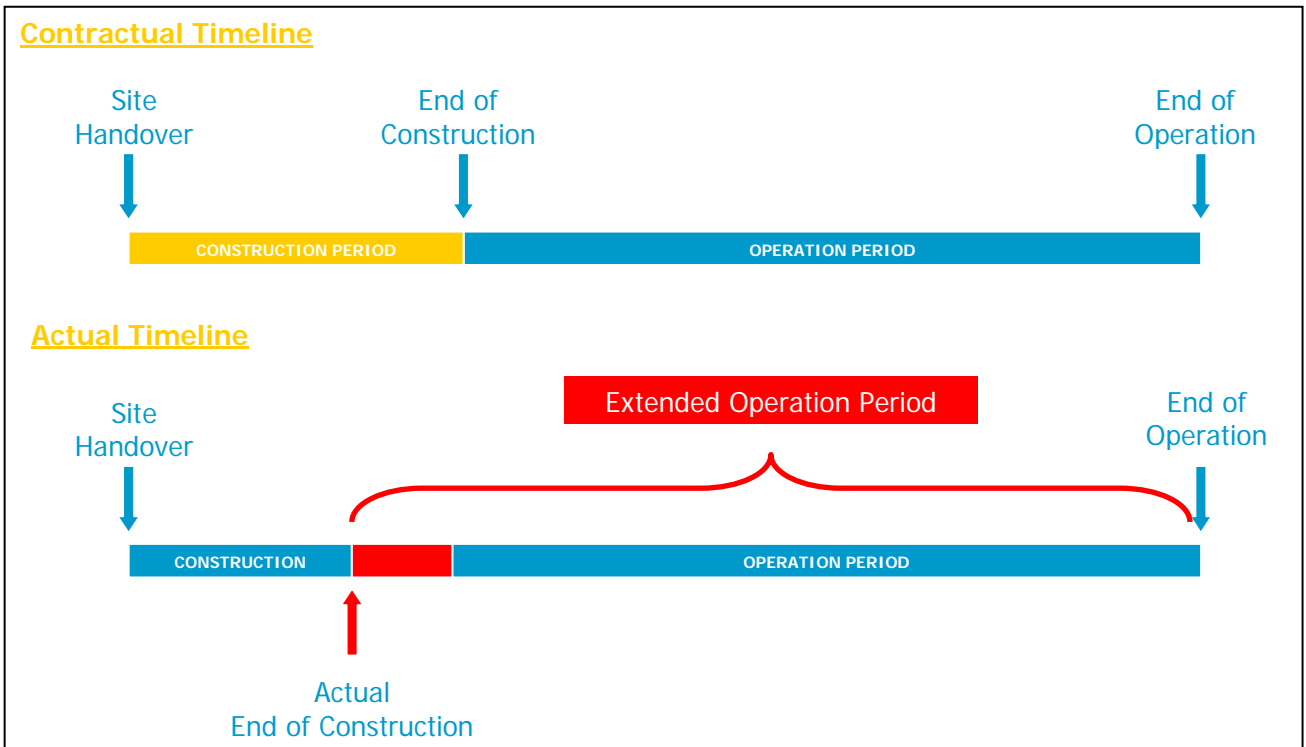


Figure 3: Fast Track Construction

Esenboğa Airport is equipped with the most advanced technology; all systems and services utilized by passengers at Esenboğa are under constant supervision, from the time one enters the parking lot through to check-in and passport control and finally boarding the plane.

As the diplomacy and protocol gate of Turkey, Ankara Esenboğa Airport has a strategic importance. Having changed the face of the capital as the first stop in Turkey in the international arena, Esenboğa Airport with its high service standards, also plays a significant role in promoting Turkey abroad. Ankara Esenboğa Airport is equipped with the latest technological security systems. Every piece of baggage that is loaded onto the plane is scanned with the Explosive Detection System (EDS) and goes through a thorough security check. Full passenger and baggage security is ensured at the Esenboğa Airport with these measures. Additional new ground was broken at the Esenboğa Airport Domestic and International Terminal. Electricity is generated from natural gas using a cogeneration plant while the heat captured with an exhausted steam recapture boiler is used for terminal air-conditioning. These measures provided 25% savings of energy costs.

TAV Construction completing the successful Design and Build project of Ankara Esenboğa International and Domestic Terminal and Multi-Storey Car park project, handed over the facility to TAV Esenboga for the operation. Since this date of 2006 TAV Esenboğa is operating the terminal facilities as a “one-stop-shop” solution for the airport including catering, duty-free, security etc. with other subsidiary companies of TAV airports Holding.

#### **4. Concluding Remarks**

Governments decided to use private sector partners to develop, expand and operate airports to overcome the lack of capacity and to accommodate state of the art technologies in airports and to be able to allocate public funds for other priority areas as well as overcoming the lack of public funds. Funding is not the only reason; receiving an economic activity in a very quick way through the dynamism of private sector and generating taxes, increasing employment and serving better quality as a catalyst for reforming public services are the other major reasons for utilising Public-Private Partnership (PPP)’s for airport projects.

The PPP model projects not only enables the required investments to be executed on time but also serve for financial needs for public investments to be met by Private sector; advanced technology to be implemented; projects to be realised faster (Fast Track Construction) and investments transferred to public at the end concession periods.

Successful airport Build-Operate-Transfer project implemented in Turkey gives momentum to the future needs of public sector to be fulfilled in the future.

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