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ASSEMBLY — 38TH SESSION

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Agenda Item 42: Economics of Airports and Air Navigation Services

BRAZILIAN MODEL FOR AIRPORTS CONCESSION

(Presented by Brazil)

EXECUTIVE SUMMARY	
The main purpose of this paper is to present the main features of the Brazilian Model for Airports Concessions.	
Strategic Objectives:	This working paper relates to Strategic Objective: Environmental Protection and Sustainable Development of Air Transport
Financial implications:	No financial implications.
References:	None.

1. **INTRODUCTION**

- 1.1 The privatization of Brazilian airports began in August 2011, with a greenfield concession of "São Gonçalo do Amarante Airport" (ASGA). The ASGA airport will be located in Natal, Rio Grande do Norte (north east of Brazil), and it is planned to be ready by 2015. Later in the same year, Brazil started to organize what is became known as the "first round" of concessions. The airports involved in this round were: Guarulhos International Airport, Campinas International Airport and Brasilia International Airport. The first two serve the metropolitan region of São Paulo and the last is one of the main hubs of the Brazilian airport system. These are the Brazilian airports that concentrate the largest investment requirements for the next thirty years and that is why they were chosen to be part of the first round of the concessions. The auction was held in February 2012 and was considered a big success.
- 1.2 Once concluded the process of transferring these airports from Infraero the federal public company that is responsible for operating main Brazilian airports –to the winners of the first round, Brazil started to prepare the next round of concessions, which will include "Galeão International Airport" (located in Rio de Janeiro) and "Confins International Airport" (located in Belo Horizonte). What it is called in this paper "Brazilian Model of Airport Concession" is the model adopted in these two rounds of concessions. The auction for Confins and Galeão is planned for late October 2013. The model adopted in the second round presents minor improvements in relation to the model adopted in the first round, but the main characteristics remain the same.
- 1.3 The Brazilian model of airports concession was elaborated with the main goals of fostering investments and improving, as soon as possible, the quality of airport infrastructures in Brazil. In the last few years, the investments in airport infrastructure in Brazil were not able to match with the rapid growth in demand. Some important airports in Brazil already present large operational bottlenecks. One of the main reasons was that Infraero faces severe constraints due to its public nature and related legal obstacles to carry out the investments needed. In this context, it became clear that the only way to aggressively expand airport infrastructure and improve the quality of services was to open Brazil's airport system for private investments.
- 1.4 A private company has much more flexibility in the decision-making process than a public company. This flexibility is reflected in both the capacity to carry out needed investments and the ability to manage the day-to-day of an airport. A more rapid expansion of infrastructure will likely culminate in a higher level of comfort and safety for airport users at lower prices. From the management point of view, decisions such as hiring new staff, equipment maintenance, revitalization of facilities, among others, are expected to be taken in a shorter period of time, also contributing to increase the quality of the user experience in the airport at a lower cost (and therefore lower price for the passenger).
- 1.5 Nevertheless, as a (quasi) natural monopoly sector, most airports are not subjected to strong competition, which confers the private operators some degree of market power. Therefore, to be successful, the concessions of airports to the private sector must be preceded by an effort to construct a regulatory environment that:
 - a) gives private operators strong incentives to increase efficiency and;
 - b) inhibits the abuse of market power.
- 1.6 In this paper we pretend to summarize the main features of the Brazilian model of airports concessions. We strongly believe that, as the airport privatization movement advances throughout the world, it is essential that ICAO Member States share experiences concerning the main characteristics and results of each model adopted.

2. PRICE REGULATION

2.1 The tariffs are regulated based on a price cap model with non-discriminatory discounts widely admitted. Each airport in Brazil may charge six different types of tariffs: boarding (passenger-based), landing (weight-based), parking (weight-based), cargo, storage and a newly created connecting fee (passenger-based).

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- 2.2 These tariffs are adjusted annually based on a formula that takes into account three variables: IPCA (Brazilian Consumer Index Price), an "X Factor" (productivity factor) and a "Q Factor" (quality factor). Therefore, the formula for adjustment remains: IPCA X Q.
- 2.3 Brazil also adopted the dual till approach to regulation, which means that the economic regulation is only concerned with aeronautical activities (most susceptible to the abuse of market power). Therefore, the Brazilian model does not constrain, by any means, the development of commercial activities in the airport site.

3. **QUALITY REGULATION**

- 3.1 As widely identified in the economic literature, one of the main problems with price-cap regulation is the incentive provided to under-supply in quality. As the Concessionaire captures a significant share of any reduction in costs, the firm can increase its profits by under-investing in quality.
- 3.2 To deal with this specific problem, Brazil has implemented quality requirements based in service level in the concession contracts. The "Q Factor" in the price adjustment formula is based on the achievement of the goals established in the contract and varies from -7.5% to +2%. This means that if the Concessionaire does not achieve the minimum quality requirements established by the regulation, the annually adjustment in prices will be below what otherwise it would be. On the other hand, if the Concessionaire achieves higher quality levels than those established in the contract, the adjustment in prices can be higher than the inflation index.

4. **INVESTMENT REQUIREMENTS**

- 4.1 Another problem related to price-cap regulation already identified in the economic literature is the incentive to under-invest in capacity expansion. As regulators can commit only with a regulatory environment for a limited period of time (in the case of Brazil, five years of fixed "X Factor" and quality indicators) and investments are amortized over longer periods of time (usually the whole concession period), there is a reduction in the incentives to invest.
- 4.2 The Brazilian airport concessions model, which is basically a "Build, Operate and Transfer" model, deal with this issue by requiring investments based on what it is called "demand triggers": when demand reaches a predetermined value for each airport, the Concessionaires must initiate the next phase of expansion in order to keep the quality of services above minimum requirements. This instrument was put in place with the purpose of achieving two goals at the same time:
 - a) reduces the risk for private investors of having to incur in big unnecessary investments in a scenario where the demand did not reach forecasted levels; and
 - b) reduces the risk for society against under-investment by the private operator.

5. **OWNERSHIP STRUCTURE**

- Regarding ownership structure of privatized airports in Brazil, Infraero remains a minority partner with a share of 49% in all the consortia responsible for the management of granted airports. This participation is aimed to ensure that the best management practices and operating technologies brought by different airports operators can be transferred to smaller airports in Brazil that still are going to be operated by Infraero, ensuring that the gains of introducing competition in the sector are not restricted to granted airports, but also achieve other important airports in the system.
- 5.2 Moreover, the Brazilian model restricts cross-ownership of the main airports to private shareholders. During the first round of concessions, the companies were allowed to compete for the three airports (Brasília, Guarulhos and Campinas) but could only win one of them. For the second round, it was established that

the winners of the first round may not hold relevant participations in the consortia that will compete for Galeão Airport (Rio de Janeiro) and Confins Airport (Belo Horizonte) and that the winner of one of them could not also win the other. The main reasons for these restrictions were:

- a) to stimulate competition between airports (mainly on the connection, cargo and/or international traffic, but also for local markets in the case of Guarulhos and Viracopos) and;
- b) to increase the gains obtained for the regulation process by making it possible to benchmark different airports operators.
- 5.3 In fact, until mid-2012, there was only one airport operator (Infraero) responsible for all major Brazilian airports. Only two years later, there will be five new operators from all over the world competing in Brazilian airport sector and providing a lot of information concerning how to manage an airport (benchmarking). There is also a four per cent limit on airline ownership of the consortia, in order to inhibit vertical integration

6. BIDDING PROCESS AND CONCESSION FEES

- 6.1 The criterion of the bidding process is the highest economic proposal. The auction is organized in two stages: a sealed-bid auction (envelopes) followed by an open ascending price simultaneous auction.
- 6.2 There are two types of concession fees that must be paid throughout the concession length: an annually fixed fee (result of the bidding process) and an annually percentage fee (share of the gross revenue that varies from airport to airport and goes from 2% in the case of Brasilia airport to 10% in the case of Guarulhos airport).

7. CROSS-SUBSIDIZATION OF SMALLER AIRPORTS

The Brazilian model stipulates that most part of the grants that are paid to the government by the granted airports must be used to increase investments in less profitable and regional airports in Brazil. Only with the fixed fee that each Concessionaire has to pay for the three airports of the first round, the government will have approximately US\$ 500 million annually for investments in the sector and certainly a considerable part of these resources will be used to improve and expand Brazilian airport infrastructure (additionally, for the next round of concessions, it is expected that both Concessionaries will have to pay together more than US\$ 100 million annually). As it turns out, this is an integrated strategy where concessions, public investment and spatial distribution of the improvements are designed to cope with the expected increasing demand for air transportation in the following years.

8. **CONCLUSION**

- 8.1 Although demand for air transport in Brazil has been growing at a fast pace in the past decade, all studies still point out to a large room for growth. Investments for expansion and improvement of airport infrastructure, aimed at preparing the country for the World Cup and the Olympics Games, will have an impact that goes beyond such events. In fact, the most important challenge for Brazilian civil aviation planning is to expand the national airports capacity in order to adapt them to the growing demand for such services, ensuring the quality of services.
- 8.2 The Brazilian model for airport concessions is strongly based on the belief that putting together the greater flexibility of private companies with the existence of well-established economic regulation environment is a very good way to enhance service level and to meet the natural forthcoming demand (investments must almost triple the capacity of Brazil's airport system by 2030). The following years will be essential to evaluate the strengths and the weaknesses of this model and it is expected that the experience of other ICAO Member States could help Brazilian authorities with the permanent challenge of improving it.