

## CONFERENCE REPORT: 4<sup>TH</sup> ACI-WORLD BANK AVIATION SYMPOSIUM (9 APRIL 2018) AND 10<sup>TH</sup> ACI AIRPORT ECONOMICS & FINANCE CONFERENCE (10-11 APRIL 2018).

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This year marked the fourth joint initiative between Airports Council International (ACI) and the World Bank Group (World Bank, IFC). For the World Bank, this is the 14<sup>th</sup> year of collaboration with the industry to organize an aviation conference aiming to highlight the Bank's efforts to support the air transport industry; exchange knowledge; and fruitfully discuss developments in the sector.

The 4<sup>th</sup> ACI-WB Aviation Symposium held on 9 April 2018 in London recorded 135 participants affiliated primarily to airport operators and advisory firms; regulators, financial institutions and other companies were also represented. In his introductory note, the Chairperson Charles Schlumberger from the World Bank ran an interactive polling to capture the audience's opinion on the main topics of Public Private Partnerships (PPPs), global economy, air transport industry and geopolitical instability. A similar polling was also undertaken by Kata Cserep, Chair in the main ACI Conference. In both cases a decoupling was apparent, i.e. the audience expressed its expectation for solid sectoral growth despite the various threats emerging at a macro level.

A wide range of topics was discussed over three sessions in the Symposium. As in the past, airport PPPs constituted a subject of central importance and the theory behind them was explored in **session one** from different angles, i.e. legal, financial and regulatory. PPPs (in the form of service or management contracts; developer financing/operation; and long-term lease or sale) may provide the necessary financial means for an airport to realize its potential and optimize the efficiency of its infrastructure and operations. They also leverage limited public resources and enhance accountability of public funds thus possibly also expediting completion of projects. The latter, however, should be carefully assessed and the terms of returns- and risk-sharing among the parties involved should be clear and sustainable in the longer run. The situation is particularly complex in the USA where the FAA's Airport Privatization Pilot Program (APPP) aims to provide a waiver from the Revenue Diversion Principle subject to the involved airlines' agreement. The latter dictates that revenue generated at a U.S. airport must be used for airport operations and development and prohibits municipalities from accepting federal support for an airport and then using airport revenues for general municipal purposes.

**Session two** of the Symposium focused on airport traffic forecasting in an uncertain business environment. Demand- and supply-driven (low and high level; short and long term) forecasts were discussed by the panelists who agreed that despite its quantitative methods, forecasting is essentially an art; moreover, scenario-based forecasts are better fit than point ones in the prevailing stochastic conditions. Passenger traffic is expected to double in the next fifteen years from 7.7 billion in 2016 to 15.7 billion passengers in 2031. Moreover, the aviation's center of gravity moves eastward. In 2016, the emerging and developing to advanced economies passenger traffic ratio was 80%; nonetheless, this is predicted to exceed 100% after 2022. In emerging and developing economies, international and domestic passenger traffic will grow at similar paces, while in advanced economies, international is predicted to grow twice as fast as domestic passenger traffic. At a global level, parity between international and domestic traffic is expected by 2040.

Finally, **session three** engaged participants into a Practical Exercise. Further to a short presentation of real-life cases from Namibia Airports Company (NAC) and Istanbul New Airport (IGA), attendees were grouped in five teams to undertake an airport PPP action plan. Points to address were set by the Master of Exercise and teams were assisted and guided by specialists to prepare and subsequently present the action plan for their respective airport in a "shark tank" context. The exercise was much appreciated by the participants, who also voted for the best presentation among airport cases presented from British Virgin Islands, Canada, Jamaica, Namibia and Turkey.

**In a nutshell, the key points to take from the Symposium are the following:**

1. Airport projects are capable of being financed like many other infrastructure assets subject to idiosyncratic issues for a potential concessionaire, such as:

- unstable and unpredictable regulatory framework changing the base of the regulated asset in single or dual till and/or adversely reviewing price caps or rate-on-return provisions with limited flexibility and force majeure relief for the operator's performance;
  - political risks associated with violence and civil unrest, imposition of capital controls and expropriation;
  - traffic dependency on limited number of carriers, origins/destinations and temporal seasonality;
  - existing asset (i.e. brownfield vs greenfield) concerns such as defects in the structure and contamination (e.g. asbestos) and supply-chain issues when a new concessionaire has to take-over numerous existing staff and third-party contracts with e.g. airport retailers, ground handlers, fuel suppliers, etc.;
  - interface risk arising when upgrading or building a new terminal while continuing to operate the airport and/or in the case of multiple contractors on site;
  - contractual risks when the concession agreement is poorly drafted and characterized by low contingency funding, high finance gearing and lack of the operator's involvement in airport process and facility design as well as staff training.
2. Successful airport concessions are characterized by:
- robust project preparation (technical, legal, financial, environmental and social) critical to assess risks, develop market-based structure and attract investor interest;
  - appropriate transaction structuring in terms of financial sustainability of traffic and revenue streams; level of user fees; adequacy of public sector payment capacity; and bankability of risk allocation;
  - sound and supportive (technical & economic) regulatory framework and clarity on legal and contractual provisions such as obligations, contributions, guaranties and dispute resolution mechanisms;
  - fair, competitive and transparent process during tender phase (setting appropriate selection criteria to screen the most appropriate pool of candidates in terms of level and quality of bids) and post-concession award (to build a solid business relationship);
  - strong support, commitment, understanding and realism by relevant public authority.
3. Forecasting under "uncertain" conditions is a challenging task, therefore:
- A sound methodology (such as times-series and econometric analysis) is imperative but not enough as reality is always ahead. It is important to closely follow airline tactical plans and keep an eye on emerging demand trends. Conflicting developments should be synthesized; operational and strategic forecasts should be reconciled; and projections should be regularly updated and amended.
  - Forecasts for different business operations are essential to minimize systemic risk and assist airport managers in developing more robust plans, regarding e.g. phasing of terminal capacity, number of security lanes to protect customer service levels, etc. Such internal analysis should also be backed up by external research on the infrastructure constraints and airport capacity pressures resulting from traffic evolution.

Further to the Symposium, **the 10<sup>th</sup> ACI Airport Economics and Finance Annual Conference took place on 10 and 11 April 2018.** The conference attracted 245 participants from airport operators, regulators, advisors and financial institutions who were presented with six sessions and had various opportunities to network including the Welcome Reception and the Gala Dinner at the Royal Institute of British Architects.

**Day 1 of the Conference** commenced with extensive **keynote addresses** on the current state of affairs, business disruptors and possible future in the airport sector. Highlighted points included the role of transformational leadership and corporate social responsibility (CSR); the need to secure traffic gains and future growth; the emphasis on quality and re-strategizing of commercial activities beyond the airport terminal to generate brand equity; the internationalization of airport activities and the development of alliances. **Detailed airport statistics were provided, summarized as follows:**

- Global airport industry revenue amounted to \$161.3 billion in 2016, up by 5.8% compared to 2015. Europe accounted for \$54.3 billion (34%); Asia-Pacific for \$50.2 billion (31%) and North America for \$30.2 billion (19%); the other regions of the world followed suit. As circa in 2015, 56% of this revenue came from aeronautical sources; 39.4% from non-aeronautical; and 4.6% from non-operating sources. Revenue per passenger was \$17.88 in 2016 vis-à-vis 17.98 in 2015.
- Aeronautical unit revenue amounted to \$10.15, primarily related to passenger charges (56.2%); aircraft charges (32.4%) and terminal rentals (11.4%). Likewise, non-aeronautical unit revenue accounted for

\$7.12, mainly attributed to retail concessions (28.8% globally although as high as 56% in the Middle East); car parking (20.5% globally but 40.8% in North America) and property and real estate (15% globally but 22.6% in Asia Pacific).

- Global industry costs amounted to 120.6 billion in 2016 up by 2% compared to 2015; 65% were related to operating and 35% to capital expenditure. Unit (i.e. per passenger) cost was \$13.55 in 2016 down by 4% compared to 2015. The industry net profit margin was 22.2% in 2016 and the global return on invested capital (ROIC) was 7.3% up from 6.4% in 2015. ROIC in emerging and developing economies was 10%, compared to 6.4% in the advanced economies.
- EU airports recorded 28.7% and 17.6% growth in passengers and freight respectively between 2012 and 2017 compared to a rise of 9% in real GDP. 99% of top20 European airports' growth between 2005 and 2014 is attributed to the march of low fare airlines, which increasingly move upmarket and provide feeding, connecting and long-haul services. Moreover, European airports have experienced a real per passenger revenue reduction of 2% since 2008 outweighed though by a real per passenger cost reduction of 12.3%. Still, 46% of airports in Europe are currently loss-making (compared to 60% in 2013). The situation is grave among airports with less than one million passengers as 71% of them are loss making. Such airports globally had a ROIC of -2.1% in 2016 hence the financial sustainability of their operations is doubtful in the future.
- Passenger traffic in Asia-Pacific rose by 8% between 2016-17. Out of top10 passenger airports, five are in Asia Pacific (in positions 2, 3, 4, 8 and 9). Likewise, out of top 10 cargo airports, six are in Asia Pacific (Hong Kong International Airports ranks first). 31.2% of existing airport and 54.4% of new airport global infrastructure developments currently take place in Asia Pacific. Several airport privatization projects are under way in Japan and India and low fare airlines are very active in China, Japan, South Korea and Taiwan. The Chinese Belt & Road initiative has also serious implications for airports in the region.

Three sessions then followed. Panelists in **Pure Finance and Economics (session one)** discussed issues of revenue and demand stability; investment and infrastructure development and debt structure. **Session two on Airport Competition Dynamics** highlighted the role of airport charges and customer (passenger and airline) satisfaction both theoretically and from a case-study perspective. **Session three on the Economic Value of a Slot** then focused on the effective management of the current slot allocation system and the need to better utilize existing capacity and accommodate expansionary plans referring among others to the recent ITF-OECD Discussion paper 2017-27 on airport infrastructure.

#### **The main points discussed in the three sessions of Day 1 of the Conference are now summarized:**

- If air travel keeps rising, congestion issues will globally become imminent. Traffic is expected to grow in the long term under all three main scenarios (i.e. policy stimulus and market liberalization; constant policies scenario; rise in protectionism). Nonetheless, there are increasing concerns about geopolitics; global GDP growth; debt levels; stock market performance; and oil prices.
- From an investment point of view, rating agencies put emphasis on revenue stability (volume- and price-wise); infrastructure development (ability to plan and finance capital expenditure); debt structure (interest rate environment, type of debt – private or public); various financial metrics including risk; capacity constraints and the level of suppressed demand.
- Airport competition affects prices and quality of service at different levels. Because of competition, airport charges have stabilized and/or decreased, and customer satisfaction has risen in Europe. For example, the volume- and new destinations-related incentive scheme of Bologna Airport has resulted in a significant improvement of service quality. A similar program was introduced in Aeroporti di Roma (assisted by the Filler Airport application suite), where the airport spends money in areas of interest to airlines with emphasis on Chinese carriers.
- The European Commission sees airports as businesses on their own right. The Commission is strict on state subsidies because of competition distortions, especially with respect to regional airports. Competition may also exist within an airport as airlines compete for access to infrastructure given the existing capacity constraints. In general, there is no real problem of airport abuse of market power – should this prove the case, ex-post enforcement may be introduced.
- In Australia, where airport price discrimination is allowed, airport charges have risen but fares have substantially decreased since 2006; this relates to increased seat capacity offered by airlines and subsequent intensification of competition on international routes with attractive yields especially by

Chinese and Middle Eastern carriers. The latter's expansion has slowed down recently but a comeback may be experienced especially if oil prices start rising again.

- In North America, the Regional Transit Centre in Toronto Pearson Airport enhances urban mobility; improves logistics and the overall productivity of the wider Toronto area; reduces emissions and shows CSR towards local community. An airside enhancement center has also been included in this project. Likewise, the case of Long Island MacArthur Airport shows that standard air service development (ASD) is necessary, but not sufficient for most airports. These need to step beyond embracing ASD 2.0 to better determine their position vis-à-vis airlines and target passengers; decide how to increase airline, target passenger preferences and design integrated programs accordingly; and drive relentless execution of the program (including measurement and adjustment).
- The current administrative slot allocation mechanism is a second-best solution and cannot allocate capacity in an efficient way from a market perspective. Certain connectivity outcomes and airline network demands are met but the interests of airports need to be considered too. Moreover, the existing capacity should be better utilized, and the concept of the most efficient slot user should be explicitly defined. Capacity constraints resulting from night curfews and environmental concerns may be difficult to curb; nonetheless, technological advancements in air traffic management and incentives provided to airlines to raise their load factors may prove of help. Therefore, policymakers should adopt a multi-dimensional approach to consider the welfare of the various users and stakeholders without succumbing, however, to the vested interests of the economic rent-seekers.

**On Day 2 of the Conference, session four was dedicated to Airport Networks** where financial sustainability of smaller airports, cross-subsidization and procurement/management synergies are important. As also discussed in ICAO Airport Economics Manual (Doc9652), airport networks may prove beneficial for smaller airports, whose great majority are currently loss making. Indicatively, 34% of all airports made a net profit and 66% a net loss in 2016; among the latter, 92.2% had less than one million passengers. In fact, larger airports have lower unit (i.e. per WLU) labor costs and much higher non-aeronautical revenues per passenger compared to smaller airports, especially those with less than one million passengers.

Further to session four, **Martin Eurnekian was interviewed live on the strategy of Aeropuertos Argentina 2000**. The company was founded in 1998 and is a major private airport operator worldwide with 35 airports and 34.2 million passengers in Argentina in 2016. According to President Eurnekian, the liberalization of the Argentinian airline market was accompanied by serious investment by the government to upgrade airport capacity and quality. The regulatory framework in the country encourages domestic flights by imposing very low airport charges. At an international level, there is a need to develop a system to realize potential beyond the current positive political cycle. **Session five then hosted an Investors' Roundtable** where the panelists stressed the role of due diligence and appropriate asset valuation, network complexity and airport charges regimes. Finally, panelists in **session six on Regulation: A European Perspective** discussed the competitive constraints faced by airports in Europe, the countervailing power of airlines, the implications of the EU Airport Charges Directive and the importance of capex flexibility to reallocate spending within the control period.

**In brief, the key points to take from the three sessions of Day 2 of the Conference are:**

- Out of the 145 airport networks identified by ACI, the clear majority (122 or 84%) are publicly owned; while PPP-administered (12 or 8%) and fully privatized networks (11 or 8%) total 23 (or 16%). 59 states (31%) do not have airport networks; 52 states (27%) have corporatized national airport networks; 50 states (26%) have state-operated airport networks; and 30 states (16%) have corporatized subnational airport networks. At a world level, 49% of airports belong to networks accounting for 38% of total traffic. The highest participation of airports in networks is observed in the Middle East (96% of airports accounting for 83% of traffic) and the lowest in Europe (39% of airports accounting for 38% in traffic).
- Smaller airports may benefit from their participation in airport networks by accessing more easily capital markets and countering inefficiencies arising from limited scale of operations and lack of management know-how. At the same time, by having a national air transport system, a state may achieve its wider development objectives to improve the welfare of its citizens in remoter regions. In any case, airport charges should be governed by the principles of transparency, non-discrimination and cost-relatedness and set in consultation with users at the overall network level.

- Still, cross-subsidization may prove inevitable to support operations in isolated airports based in remote regions. This is also acknowledged in the Indian 2016 National Civil Aviation Policy and Regional Connectivity Scheme which aims to support airline operators through: a) concessions by the government and airport operators to support airline operations and reduce their costs on regional routes and b) financial support to meet the viability gap, if any, between the cost of airline operations and expected revenues on such routes.
- Efficiency through centralization of procurement; reduction of operating costs (including the number of staff); and adoption of innovative technological solutions is essential to AENA, the Spanish airport network operator that served 249.2 million passengers in Spain in 2017, up by 8.2% compared to 2016. AENA's operating cost per passenger was 66.6% lower than the average of its main European competitors in 2016.
- Fraport Greece won a 40-year concession of 14 regional airports in Greece in 2017 with the scope to upgrade, operate and continuously develop these airports thus actively supporting the crucial tourism sector in the country. An initial capital expenditure of at least €415 million is expected until 2021. Significant contributions are made to the Greek Treasury because of a €1.234 billion upfront concession fee and several annual payments henceforth. Combined, the 14 Greek regional airports served 27.6 million passengers in 2017, i.e. a rise of 10.3% compared to 2016.
- From an investor's perspective, due diligence before an airport concession examines all aspects of the associated business plan; the prevailing regulatory and policy environment; the transparency and availability of all documentation in English; and the provision of detailed data on traffic as well as on aeronautical and non-aeronautical revenue.
- In terms of valuation, EBITDA growth and sensitivity analysis are undertaken based on the concession life and the forecasts of aeronautical revenues. Airport networks may provide synergies but also add complexities to a proper valuation. Issues of intermodality and surface infrastructure funding are also important as they affect the appeal of an airport's location to its potential users. Multiples are used as a double-check in valuation but what matters primarily is to properly compare the asset in question with its peers and assess whether this involves a high-quality transaction. In general, however, investment in transport infrastructure is regarded as relatively low-risk allowing for inflation protection through indexation. Yet, when the global economy departs away from the current zero-interest rate environment, risk-adjusted returns would have to be reassessed.
- A good regulatory framework should ensure that the interests of air travelers are protected; incentivize investments in quality and capacity as these are a key driver for economic growth; provide a balance between all stakeholders in terms of fair return and the need to meet market demand; and promote productive, allocative and dynamic efficiency. Nonetheless, and regardless of the organizational format of airports, states are ultimately responsible for safety, security and economic oversight of airport operations.
- Efficiency incentives and regulatory certainty must be balanced against allowing flexibility for airports to respond to changing circumstances. Airports should have the flexibility to incur operating and capital expenditure as they see fit over the course of a regulatory period; set individual airport charges, including differentiated or peak prices; and seek to enter into bilateral agreements with airline customers. This is important to provide certainty of continued returns for airports, while ensuring value-for-money investments which meet the changing needs of current and future users.
- In addition to the traditionally addressed issues of airport market power exercised over airlines, the potential buyer power of the latter should be highlighted. Currently, airlines are prepared and able to switch between airports because of the growth of point-to-point services offered by low fare airlines and the adoption of more flexible airline business models. Moreover, passenger choice increases as market grows and as more routes become available from multiple airports in the same catchment area. In this context, passenger choice for hubs results in more hub-on-hub competition but may also lead to hub-bypassing.
- The 2009 EU Airport Charges Directive has worked well in terms of providing a stable framework for long term investments in the airport business; increasing the airline involvement in the development of the airport ecosystem through a consultation process; and addressing the continuously evolving competitive nature of the airport business model. The existence of independent, knowledgeable and efficient supervisory authorities is essential to safeguard the smooth operation of the system.