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Symposium and Conference Feedback
The 11th Annual Airport Economics & Finance Conference brought together the world’s airports and the World Bank with the aim of exchanging knowledge and experience, bridging the gap between the financing capabilities and requirements of the private capital owners and the interests and challenges of the airport industry. During the three days of the conference, investors, financing institutions, forecasters, regulators and the industry players addressed the critical aspects that would enable or represent a threat to the implementation of public-private partnerships or privatization process of airports across the globe.

With forecasted growth and air service demand, substantial investment in airport infrastructure will be required quickly. Today, many airports are operating near, or at, capacity facing congestion, high costs, low levels of service and frustrated demand, making the need for a fertile ground for investments a critical priority, requiring an adequate aviation policy - one that recognizes the economic externalities airport bring, while also meeting the needs of consumers, communities and environmental stewardship. Whilst comparing to IATA’s return on invested capital (ROIC) for the past seven years, can be seen that on average airlines registered a 1.2% higher ROIC compared to global airports, in 2018 airlines’ reporting an 8.6% return compared to 7.6% from airports, also benefiting of a more liquid asset and better capabilities of releasing excess capacity during economic downturns.

Taking a closer look at the evolution of the airport industry throughout the past two years, can be seen that although at a slower rate, the airport passenger growth remained steady, with the African market, at 9.9%, leading annual growth, followed by the world regions with an average of 6%, with only the Middle Eastern region showing a slower growth trend at 2.1%. The freight traffic followed a similar trend, with the African market registering the most significant growth at over 11.5% p.a., while Middle Eastern, European and Asian-Pacific markets saw a slower growth rate of approximately 2%.

Although, the airport trend registered a slight slowing compared to the past two years, growth is expected to continue at an average rate of 4.1%, with global airport passenger traffic estimated to double in the next 20 years, from 8.8 billion in 2018 to 20.9 billion by 2040. In terms of traffic forecast, the 2006-2040 analysis shows a shift in the traffic component, with emerging markets expected to lead growth; by 2040 the emerging to advanced markets ratio is forecasted at 1.5, from the equal split foreseen for 2022.

Total airport revenues in 2016-2017 registered US$172.2 billion, Europe and Asia-Pacific representing the highest volumes by region, with Latin America and Africa highly relying on non-aeronautical revenues. On global average, the aeronautical revenues have not managed to cover the required capital expenditure needs of airports, keeping them highly dependent on non-aeronautical revenues. Retail concessions represented 30% of total non-aeronautical revenues, with the strongest market being the Middle East with 52% of total, and the lowest North America with only 8%.

Food outlets have been winning a stronger position amongst passenger choices, with more emphasis being placed on creating a pleasant airport experience, healthier food and gourmet concepts.
Under the current market conditions, airports need to develop innovative and complex financing schemes to address both opportunities and risks for lenders and investors, with many government owned airports struggling in ensuring adequate financing to embrace passenger growth. Private capital in the form of Public Private Partnership (PPP) represents an attractive solution to address this challenge, as it decreases the public exposure and introduces efficient private sector principles and efficiencies. Following on the past four events, celebrated in collaboration with Airport Council International, the World Bank symposium aimed at highlighting the role of regulators, challenges and the adequate framework that will enable the development of successful PPP models across the world.

During the past decade, significant reduction in air travel costs as well as the positive economic outlook generated a doubling of the propensity of flying, resulting in an unprecedented growth rate of the air transport industry overall. While traditionally air transport grew at an average equal to the Gross Domestic Product (GDP), in the past decade aviation grew at twice this figure. Such growth was welcomed by the industry that registered a more positive profitability, nevertheless placed the global infrastructure under the pressure of having to cope with increased demand. The opening session looked at the downside and upside risks resulting from this growth and leaving the floor open for debate on finding the best solutions to mitigate.

Forward looking, under a constant policy scenario, IATA continues to predict growth over the next two decades, with passenger numbers expected to exceed 7 billion by 2038. Such growths require global airport investments of approximately US$1.2-1.5 trillion by 2030. While airports generally represent a stable investment opportunity, such long-term commitment bears certain risks, such as geopolitics, the global economy, protectionism, which could affect the growth of the airline industry.
The Symposium held during the first day of the conference, led by the World Bank; set the scene by giving an outlook of the economic perspective as well as the traffic and cargo expectations for the next two decades. Although, the economic development registered a slight slowing compared to the past two years, growth is expected to continue at an average rate of 4.1%, with global airport passenger traffic estimated to double in the next 20 years, from 8.8 billion in 2018 to 20.9 billion by 2040. Air travel demand, is also expected to continue to grow, at an average annual of 3.5%, with significant shifts in the global market share. China, India and Indonesia will be taking lead in the market share distribution by 2037. The domestic markets of tomorrow will not necessarily be the markets of today.

Cost of travel has been significantly reduced through policy and technological improvements, while unique city pairs have doubled, reaching over 20,000 in 2018. Airlines have learnt how to better manage capacity, since 2010 having sustained a load factor gap above break-even, filling 70% of their available ton kilometers, improving efficiencies and gaining in performance.

The United Kingdom is the 3rd aviation market and London the best-connected city in the world, with the Brexit being one of the key topics, Mr. Wiltshire took a closer look at the possible impact of the various outcomes of this process, considering that should there be any restrictions affecting connectivity they would be of short-term nature with low impact on travel and demand. A more significant impact under a “deal scenario” would be taken by the British economy and its currency’s exchange with a possible slow down period of 3-4 years, while a “no deal scenario” would place the economy into recession for one or two year period.

The industrial production and trade are key drivers of the cargo segment growth, and yields registered in 2018 were 22% higher than in 2016, with an average 10% annual revenue growth, despite the volatility in the volumes. The environmental aspects impacting the auto industry in Germany, the high-incidence of protest in France, the instability caused by the Brexit, the slow-down of the Chinese market, are just some of the factors that affected the growth rates in 2018. Nowadays, both Chinese and European markets have shown signs of recovery and the long-term outlook is positive, with an expected 4.2% annual growth, as freighters are expected to remain the backbone of the air cargo industry, with the world fleet estimated to reach 3260 aircraft over the next two decades.

The main challenges outlined by Eurocontrol for the next 20 years have been analyzed and stand as basis for the four scenarios envisaged for 2040 in order to help the air transport industry plan and mitigate risks. The future is uncertain and a forecast cannot make that uncertainty go away, but it can help structure it and to identify what is more and what less likely to affect results.
The structure used in the four scenarios captured four stories about the possible future built as points on two axes: Europe’s ability to adapt (economically, technologically, politically) and its perspective: inward- vs outward-looking:

- The most-likely scenario, reflected in the Regulation & Growth, a sort of business-as-usual, middle of the road, moderate growth regulated to reconcile demand with sustainability issues;
- Of the other three, Eurocontrol believes the high-growth scenario also deserves particular attention: Global Growth. Strong global growth with technology used to mitigate effects of sustainability challenges;
- Fragmenting World. A World of increasing tensions and reduced globalization;
- Happy Localism. Like Regulation & Growth, but with a fragile Europe increasingly, and contentedly, looking inwards. In other words, “small is beautiful”

Following the most likely outcome under the Regulation & Growth scenario, in terms of traffic forecast, Eucontrol foresees a 53% increase in flights in Europe between 2017 and 2040, resulting in a capacity gap of 1.5 million IFR movements, a loss of 8% of demand, accounting for approximately 160 million passengers.

A network of highly congested airports means each delay triggers reactionary delays through the day, and across the network, resulting in a severe reduction in the quality of service to passengers, just as airlines, airports and regulators increase their focus on quality. By 2040, 16 of Europe’s airports are expected to reach high-congestion levels if no infrastructure developments are undertaken or efficiency gains through new technologies are reached. During Summer 2016, around 50,000 passengers per day were delayed 1-2 hours expected to increase to 470,000, nearly half a million passengers per day facing that level of delay by 2040.

Another significant upside risk of growth in air travel demand, as presented by Mr. David Owens, is given by the insufficient number of pilots and training facilities to accommodate the rate of growth, with over 160,000 additional commercial airline pilots being required in the next 10 years. Additionally, 215,000 new captains are required to fulfill the needs of air operators over the next decade with high pressure being placed on the period of formation and professional maturity.

As the pilot job is less aspirational as was for past generations, smarter and more involved recruitment and formation practices need to be in-place, requiring the involvement of the entire aviation industry. Of the total 360,000 active civil pilots, women represent only 5%, creating opportunity to increase diversity while broadening the civil aviation talent pool, by changing the gender stereotypes before children reach six years of age.

Another significant risk of under developing the pilot market is given by its high cost, as an average type rating and training program costs approximately US$150,000/cadet and there are insufficient or difficultly obtainable sources available for training purposes.

Summarizing on the downside and upside risks that the air transport industry will have to face in the near future, the highest concerns seem to be associated to the upside risks, as overall growth exceeds current capacity and capabilities, the role of policy making organizations becoming essential in providing policy stimulus and help foster harmonization across the world, as multilateral agreements are not always equally implemented.
Session Two: Public Private Partnerships (PPP) Theory and Practical Exercise

Chair: **Dr. Charles Schlumberger**, Lead Air Transport Specialist World Bank
Panelists: **Mr. Andy Ricover**, Air Transport and PPP Expert, World Bank  
**Mr. Ian Twinn**, Head of Infrastructure Portfolio, IFC  
**Mrs. Isabelle Lelieur**, Partner, Chevrier Avocats  
**Mr. Rafael Echevarne**, Chief Executive Officer, MBJ Airports Limited

The World Bank, the largest provider of development finance, assists large-scale transformational projects in air transport by offering operational and financial support through projects and technical assistance, air transport research and collaboration with aviation organizations. The International Finance Corporation (IFC) unit, through its 101 offices in 94 countries worldwide, provides comprehensive transaction advisory support, mobilizing and committing since 2005, over $2.3 billion USD for airport investments worldwide, whilst the Multilateral Investment Guarantee Agency (MIGA) offers insurance solutions to mitigate risks faced by lenders and investors.

Throughout the session the bank presented the investment parameters required by airports owners as well as the process deployed in assisting airports in their preparation for a public private partnership. Examples from across the globe have been presented as well as the importance of the legal and institutional framework in aligning the owners’ expectations with their contractual obligations.

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**IFC'S INVESTMENT PARAMETERS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Commerciably Sound</strong></td>
<td>• IFC invests exclusively in for-profit projects and changes market rates for its products and services</td>
</tr>
<tr>
<td><strong>Market Catalyst</strong></td>
<td>• IFC generally finances no more than 25-50% of total project cost</td>
</tr>
<tr>
<td><strong>Long Term Horizon</strong></td>
<td>• IFC invests for the medium to long term</td>
</tr>
<tr>
<td><strong>Environmentally and Socially Responsible</strong></td>
<td>• Each investment assessed for ESrisks by inhouse team of experts and action plan put in place to mitigate risks</td>
</tr>
<tr>
<td><strong>Corporate Governance</strong></td>
<td>• Detailed corporate governance assessment carried out (dedicated internal resources)</td>
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**IFC TRANSACTION ADVISORY PROCESS**

IFC provides comprehensive transaction advisory support in 2 phases:

1. **Due Diligence**
   - Assess PPP options (technical, financial, and legal analysis)
   - Define transaction structure (marketing, risk allocation, payment mechanisms)
   - Gov’t decision

2. **Implementation**
   - Market to investors (Info. Mem, Term Sheet, Pitch, etc.)
   - Prepare PPP contract, negotiate with bidders
   - Conduct tender, evaluate, award
   - Closing

Public private partnerships in airport infrastructure have the potential to offer several benefits by:

- Leveraging limited public resources
- Maximizing value for money by tapping private sector operating efficiencies
- Enhancing accountability of public funds with clearly demarcated payment streams for funds, administered by independent boards
- Potentially expedites project completion
- Potential project cost savings
A well-prepared transaction covers the eight key elements of success:

- Robust preparation (technical, legal, financial, E&S) is critical to assess risk, develop market-based structure and attract investor interest
- An adequate transaction structure takes into account feasibility and economic viability to allocate responsibilities and risks to each party
- Designing an optimal risk-sharing mechanism at the project development phase is essential to ensuring bankability
- Establishing a legal and regulatory framework for PPPs consists of policies, procedures, institutions and rules that define how PPPs will be assessed, selected and monitored
- A successful PPP should involve clarity on obligations, contributions and guaranties linked to all parties
- A fair and competitive process ensures the success of the PPP at every stage
- Public sector stakeholders must have adequate capacity to support and provide clarity on the project to the private sector partners
- Private partners must ensure they screen the most appropriate candidates and can participate in a full partnership

Set in the positive outlook of market growth and evolving business models on behalf of the airlines, the airport industry is changing rapidly, moving from a more passive role of a simple infrastructure provider, to an active player, engaged in competing with other airports in attracting airlines and passengers. In their quest for leadership airports need to invest in infrastructure, services, innovative marketing schemes and overall management processes. Out of the 8,278 airports, 27% have opted for a public private partnership whilst 26,8% have opted for concession programs or other types of public private partnership options, with no apparent relationship between ownership and revenue generation, nevertheless, as stated by Mr.Ricover, airports with private structures have seen a more significant increase in infrastructure investments compared to their state owned competitors.

The qualitative results of the above analysis, as well as the stringent need to further develop infrastructure capacity at global level, have been encouraging factors for the development of PPP projects worldwide, and for some airports to be fully privatized, as part of a very different process, by which the ownership structure is being changed. There are two types of public private partnerships, depending on what the public authority is seeking, and it can vary between a Management contract with no CAPEX financing required and a Design-Build-Finance-Operate-Maintain (DBFOM) / Build-Operate-Transfer (BOT) contract that requires also CAPEX financing.

As pointed out by Mrs. Lelieur, some PPP projects have proven to be unsuccessful due to lack of assessment as there was an a) inadequation between project definition and public needs, and b) inadequate contractual scheme, that led to early contract terminations. It is essential for the public authority to recognize and accept the airport’s reality, and acknowledge that some airports, without volumes, do not meet the requirements to become commercially successful.

Nevertheless, a well prepared PPP, with a balanced allocation of rights, obligations and risks, is win-win process, by which the public authority remains the owner of the airport, defines regulation and policies, sets economic regulation, provides contractual framework and monitors performance, while the private partner operates and develops the airport, implements regulation and policies, optimizes the asset performance and shares values, raises private funding, analyses and reports on airport's performance.
Session Three: Practical Exercise

Chair: Dr. Charles Schlumberger, Lead Air Transport Specialist World Bank

The participants have been split into five groups, assisted by air transport specialists and PPP experts, with the task of preparing five airport PPP projects, presenting the value added and the challenges specific to their economic environment. Participants have used their skills and knowledge in trying to convince the judges of the viability of investing in Bermuda, China, Georgia, Taiwan and the United States. The final decision involved the entire audience, as participants have had to use the ACI App to vote, selecting Bermuda Airport as the winner of the exercise.
In line with other market expectations the industry saw a 6% annual traffic growth despite threats, global airline profitability remained solid but to grow at slower rates, a continued inter-hub competition offering increased passenger choices, and an increase in airport transactions, pointing out to London’s Luton Airport, VINCI’s investment into Gatwick Airport and the privatization of six Indian airports.

The industry produced some less expected but still foreseeable results, as 2018 resulted in the bankruptcy of some airlines, significant disruption to air travel due to industrial action, the end of production for the Airbus A380 aircraft and consolidation amongst manufacturers as Boing-Embraer and Airbus-Bombardier partnerships have strengthen to cover a wider portfolio of products and lower capacity gaps.

Outcomes that very few would have expected, as the drone impact on airport operations at Gatwick caused significant disruption and produced significant losses to air operators, the Rolls-Royce engine troubles grounding Airbus A350 airplanes and producing over GBP 1.3 billion loss, fatal air accidents causing the grounding of Boeing 737-8 MAX aircraft or government reducing airport capacity by decree in Germany. Such paradigm shifts in infrastructure development are affecting the airport business generating the need for airports to reinvent and rethink strategies forward.

Mr. Olivier Jankovec, presented a closer outlook of the trends registered within European airports during 2018, performing on a constant positive trend since 2013, having reached over 2.34 billion passengers. The return on capital invested in airports was of 7.9%, although healthy, underperforming when compared to the rest of the world, despite low interest rates and reductions in OPEX and CAPEX. The new hold baggage security checks required investments of over US$15 billion, and although the European Central Bank has published to maintain low interest rates throughout 2019, an increase in the cost of lending is expected as of 2020.

Regarding the growth dynamic, there is a softening in the trend, that is expected to reach 4.3% annual growth, while the freight traffic is expected to go down to a 2.9%, in line with the economic deceleration registered across Europe.

The doubling of air travel demand as foreseen for 2040 represents the main challenge for the European airports, and as airlines are going through a process of hybridization and consolidation, connectivity patterns are also expected to change, with more emphasis being placed on the point-to-point traffic. Such changes are affecting the airport industry directly, as in the quest of attracting airlines, the airport competition is growing placing the aeronautical revenues under pressure.

Mrs. Kata Cserep, ICF’s EMEA Managing Director for Aviation, introduced the 11th Airport Economics and Finance Conference by analysing the past year performance from three key perspectives: expected outcome, what we might have expected and what very few have expected.
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Amidst all transformation, citizens and passengers are changing values, placing the environmental impact in focus; Corporate Social Responsibility (CSR) activities, although in the airport’s usual business practices, do not suffice anymore being required a paradigm shift, placing sustainability at the core of any airport business strategy, moving from Business-to-Business, to Business-to-Consumer and now to Business-to-People, becoming a “glocal business who cares”.

The Asian-Pacific airport trends, as presented by the ACI’s regional director, Mrs. Patti Chau, at a 6.6% annual growth, outperformed the global average of 5.9%, with China still growing at an annual rate of 10.2%, over 2017. Indian airports have registered over 340 million passengers, a 25.6% annual growth, with the low cost carriers remaining the preferred type of airline service for the Asian Pacific region. Airfreight grew at 2.4% in Asia Pacific and maintained steady in the Middle-Eastern region, lower than the 3.3% global growth.

Some of the recent regional developments have been the entry into service of the new airport terminals: (a) Phuket’s domestic terminal expansion, (b) Mactan Cebu’s terminal 2 and (c) Muscat’s new terminal. Other regional projects on the pipeline are Beijing’s second airport to be opened by September 2019, Guangzhou’s new airport to be built by 2022, Navi Mumbai new airport expected by 2022, Abu Dhabi’s new terminal, and Bahrain new passenger terminal building to be completed by 2019.

Out of total global airport investment portfolio 2017-2045, Asia Pacific represents 40.6% totaling US$ 314 billion while the Middle Eastern region stands for 13.6%, totaling US$ 105 billion.
Session One: Economic Regulation in the era of Airline Consolidation and Airport Competition

Chair:  Mr. John Strickland, Director JLS Consulting
Panelists: Mr. Simon McNamara, Area Manager United Kingdom & Ireland, IATA  
Mr. Roberto Costa, Manager - Air Service Operations Branch, ANAC Brazil  
Mr. Rajeev Jain, Chief Executive Officer, Mumbai International Airport  
Mr. Christophe Dussart, Head of Unit, European Commission  
Mr. Thierry Ligonnière, Director, ANA Aeropuertos de Portugal

Mr. Strickland introduced the panelists to the current market prospects focusing on the mix of results and types of operations being undertaken by airlines, from the “flavor of the month” long-haul low cost operation undertaken unsuccessfully by some carriers (Norwegian Airlines having published negative results of GBP 120 million during the past fiscal year) to the opposite results of operators like Ryanair or IAG Group having high return on capital invested and paying dividends.

In such a diverse environment, airports need to find the adequate approach regarding airport charges and level of commercial conditions of their engagement with airlines, whilst keeping a strong focus on the final customer, also in line with the DG Move directive.

A higher regard is expected, on behalf of the regulators, on aspects related to airport concessions. The evolution of the Brazilian airport market, as presented by Mr. Costa, has gradually shifted from a state run environment that accounted in 2010 for a market of 32 million passengers, to a private market that currently accounts for almost 100 million passengers. The major threshold was the initiation in 2014 of the concession program by which ANAC Brazil started the attraction of private capital - Natal being the first airport to be given in concession, followed by Guarulhos São Paulo and Brasilia (Federal District), change that contributed to the increase in the quality of service and infrastructure.

The initial contracts were stricter, focused on cost-efficiency and the reduction of the infrastructure gap, limiting airline negotiations and interface, and resulted in a decrease in traffic. By 2015, the lessons were learnt and the concession framework had been revised allowing for a variety of airport operators to participate to the market, generating a healthy competition. Mr. Ligonnière has outlined a similar experience at ANA Airports in Portugal, a public private partnership having the Vinci Group as main investor. Going one step further he pointed out that airports are forward looking at airlines adding new capacity and launching competition in obtaining the routes, and in certain situations airlines and airports are working together in ensuring an optimal route development. Giving the example of Lisbon, although at 9% below contractual threshold, the Vinci group helped grow passenger numbers with over 10 million in the past five years, that is four times more growth than in the previous five years prior to the concession.

Mr. Jain of Mumbai International Airport spoke of a different experience on the Indian sub-continent, were there is massive passenger growth, but air operators are struggling due to over-competition and over capacity. Having such a dense environment, ACI foreseeing a growth four times more then current demand in the next two decades, the airport management is evaluating the possibility of shifting from percentage per revenue shares to a flat fee per passenger to be paid out to the airport authority. Also, given the size and differentiation of airports within the country, the regulatory framework should vary depending on the type and size of airport, as well as on the buying power airports have.

Beyond the competition for airlines and new route development, the industry needs to establish the degree of airport economic regulation that would enable the most successful business development, some voicing for allowing the market forces to lead business strategies. As the European Commission and the Australian Productivity Commission are assessing their respective airport charges directives, airports are signaling that a single set of regulation would not benefit all players, and that the new level of condition on which airlines and airports should engage in commercial relationships should take into account the different types of airports, based on size, competition level and buying power.
Session Two: The Changing Dynamics of Airport Commercial Revenues

Chair: Mr. Elias Liolios, Senior Manager Commercial & Business Development, Hermes Airports and Chair, ACI EUROPE Commercial Forum

Panelists: Mr. Eugenio Andrades, Chief Executive Officer, Africa and Strategy, Dufry
Mr. Andrew Perrier, Chief Business Development Officer, National Parking Company (Magwif)
Mr. Kian Gould, Founder and Chief Executive Officer, AOE
Mr. Arturs Saveljevs, Member of the Board (CCO), Riga International Airport and Chair, ACI EUROPE Airport City and Real Estate Task Force

The airport commercial revenues or non-aeronautical revenues represent 50% of total revenues generated, being one of the key enablers in infrastructure development and self-sustainability of airports across the world. Nevertheless, the travel retail market has been contracting, and the spending per head is decreasing, as low cost carriers are adding an increasing number of airline seats to the market. Airport parking revenues account for 20-40% of total non-aeronautical revenues, and are the first and last touch point of the passengers’ interaction with the travel experience. Land and other revenue prospects represent 15-25%, the real estate developments around the airport being seen as the next “untapped” source of non-aeronautical revenues, together with service centers like exhibition and conference halls, shopping mall for non-travellers and “airport corridors” and “airport circle” developments.

When looking at the final customers, the millennials are the key drivers in changing the dynamics of airport commercial revenues, as 93% of them have indicated “pre-shopping habits”, by researching on-line before purchasing in airport stores. 60% of interviewees responded that “exclusivity” of products at airport is a key driver in their purchasing decision. As passengers are getting more sensitive to their overall experience in the airports, any negative aspects, as higher prices in food and beverage outlets can affect their desire to purchase.

As the Travel Retail revenues have been decreasing, airports need to focus on “fulfillment” and “experience”, and to prevail on the “experience” function to maximize opportunities through the development of attractive marketing strategies and efficient e-commerce platforms. The key word is “digitalization”, an integrated process that will start from the parking of their car until the fulfillment of the journey at destination.
Session Three: Roadmaps to manage scarce capacity  
- The Economics and Politics of Slots

Chair:  **Mr. Matthias Finger**, Swiss Post Chair in Management of Network Industries, EPFL

Panelists:  
**Mr. Eric Herbane**, Managing Director, COHOR  
**Mr. Gunter Heinrich**, Head of Flight Schedule Management, Traffic & Terminal Management, Fraport  
**Mr. Denis Sparas**, Case Handler, European Commission, DG Competition  
**Mr. Andrew Charlton**, Managing Director, Aviation Advocacy  
**Mrs. Patty Clark**, Chief Aviation Strategy Officer, The Port Authority of New York, New Jersey

The capacity constraint remains the key upside risk at airports across the world, as it becomes almost impossible to add new runways and additional infrastructure, as such slot allocation has become a battlefield for competition and transparency and their most efficient use has been debated. Strong focus was placed on how slots should be allocated as to balance regional connectivity and profitability in an “evolutionary” approach or should the administrative system be replaced by a “revolutionary” market based approach. As there are no current changes being discussed at European Commission level a more efficient air traffic management remains the key enabler for increasing capacity.

The panel participants have presented various approaches, however an agreement was found in the sense that the capacity crunch will become the new “modus operandi” as the current degree of congestion will transform in “super-congestion” (as seen at London Heathrow or Amsterdam Schiphol), the focus turning on how coordination will manage to balance the slots’ most efficient use. Europe is considered a “victim of its own success”, as the liberalization of the market produced a large number of operators that generate capacity constraints. Under the current mandate, at European Commission level, there are no changes proposed for the slot coordination procedure, so the near term is foreseen on a “business as usual” basis.

Mrs. Patty Clark considered that there was a misbalance between the obligations of the port authority to provide for infrastructure improvements and the generation of additional slots, however without having any saying about the way in which capacity is being allocated.
Session Four: Risky Business
- Crafting the Concession Agreement in Foreign Lands

Chair: Mr. Stefano Baronci, Director of Economics, ACI World
Panelists: Mr. Gabriel de la Rica, Commercial Director, Ferrovial
Mr. Simon Morris, Vice President Airport Advisory, ICF
Mr. Sidharath Kapur, Executive Director and Member of the Board, GMR Airports
Mr. Shyamali Rajiva, Director, Global Infrastructure Group

The second day of the conference started with Mr. Baronci bringing to the audience's attention a 2,200 years old contract, signaling that a clear agreement allocating the risks between parties is the essential requirement for a successful partnership, even more when such an agreement takes into account international stakeholders and a wide range of risks that can arise in infrastructure projects.

As the privatization process of the industry is moving ahead, with 20 more airports undergoing the process during 2018-2019, the question arises on which structure should it undertake and what should be the nature of government objectives and requirements of the private operator. Globally, 78% of the privatization models have opted for a Built-Operate-transfer model, while 14% opted for Trade/Sale-Lease and only 8% for Management Contracts. Most privatization (85%) undergo an open-bid process with an average participation of four bidders, Africa seeing the lowest proportion (75%) and Asia Pacific the highest (96%).

Today, over half (51%) of top 100 airports, based on passenger traffic, had private sector participation and the traffic handled by airports with private sector involvement increased to 43%. There are 24 airport networks globally with private sector participation handling above 860 million passengers.

Europe saw the highest proportion of passengers (75%) held by airports with private sector participation; North America saw the lowest (1%). An injection of capital expenditures is often seen after privatization. Airports with private sector participation invested 14% more in CAPEX compared to public airports and 12% more than the global average.

When analysing if airports have a higher leverage than other investment projects the panelists looked at the regulatory and environmental constraints, as well as the high level of capital investments required. As such, the key risk factors identified where: the volatility of passenger volumes especially during lower economic cycles, how can airports raise their charges in moments when higher CAPEX is required, the physical capacity constraints to further develop, the difficulties in attracting capital with limited investor protection mechanisms in place. Political risks have been considered of importance, however with a lower impact on the activity should there be a strong contract in place guaranteeing for consistency, transparency and predictability. Also there was a conclusion that the more established is a political regime the better the cash flow and overall results of the airport.

Another conclusion of the panel was that economic regulation should be embodied in the concession agreements, as to limit exposure to “innovative” regulatory approaches that could affect the results and that such agreements should be looking for a minimum duration of 35 years, as the building blocks of a successful airport have longer economic lives. Concession agreements need to address issues such as the level of service and continuous investment strategy as to maintain the standards of quality.

Mr. De Rica spoke about the U.S. Airport Privatization Pilot Program, as a good starting framework for the privatization process, nevertheless with some of the execution conditions making it difficult to move forward. He recognized that in the United States there is a shift in the trend, with new partner airports that do not interact anymore via the FAA but rather through the local municipality (as the case of Denver airport), making the partnership easier as there are fewer layers of decisions and regulatory requirements. Having carried out large volumes of investments globally, they recognize that projects requirements can change throughout the negotiation process and is important that airports find a "one stop shop" solution to address all their needs.

As a final conclusion, the airport industry is ready to address the challenges of the complexity of the concession and privatization process under the condition that the contract agreement is drafted diligently. The political and regulatory implications need to be properly accounted for, as well a good balance between the benefits and the obligations of all parties involved.
Both airlines and passengers are customers of airports, generating together aeronautical and non-aeronautical revenues; as such the marketing strategies need to address the expectations of both customers. Attracting and retaining airlines has evolved from an airport activity, to a destination management collaborative process, where local government, tourism board and airport become part of a market development strategy. The positive results have been seen in airports of all sizes, as Dubai International, Moscow Domodedovo and Kalamata Airport, have registered excellent results in attracting and retaining airlines.

The main elements of Dubai International Airport marketing strategy have never focused on offering financial incentives to air operators, rather to invest in the quality of the infrastructure, as to become an airport of choice for passengers. The involvement of the country in the development of the destination was crucial and resulted in the double digits growth that the airport has seen in the past. As growth went to more stable trends, the airport is revamping its marketing activities directed towards the final customers, the passengers, as well as towards the airlines, by offering additional services and support.

Mr. Burkard shared a similar experience, as Moscow’s airports have also established a strategy of not paying airline incentives but producing valuable general support and in-depth market analysis to foster a decision on initiating operation, that resulted in attracting up to 50% of the airlines they have prepared studies for. Additionally, the airport acts, as a “one stop shop” for all assistance the airline needs, making it easier to operate in Russia, interact with other domestic carriers and carry out interline agreements, in some cases acting as a guarantor for interline revenues.

A different experience was shared by the Greek airports that had to create a mix between destination support services and financial incentives to support airlines throughout the route-building period, as many airlines had difficulties, in the past, in overpassing the break-even threshold of 50-60% load factor. With the penetration and new service offering of the low cost carriers airlines have learnt how to better manage capacity and such support is generally not required any longer, nevertheless Mr. Paraschis considers that today’s success could not have been possible if the airline-airport partnership would not have been fostered during the more difficult economic times.

Mrs. Papatsoni, of Kalamata Airport told the story of how a good destination and a sustainable strategy can bring an airport to flourish, from 250 charter flights per year in 2010 to being operated by 19 regular airlines reaching 22 destinations, a 450% passenger growth in 2018. The result was the effort of successfully aligning all key stakeholders and reducing the risk of the airline in order to initiate the operation. In this regard they convinced tour operators to purchase seat allocation on flights whilst the local tourism board took its part in ensuring there was a solid destination promotion. As an example of a positive outcome of this collaborative approach, British Airways has initiated flights in 2016, registering a 37% annual growth, Kalamata route being in 2018 amongst one of their Top 10 best performing routes.

The conclusion of this session is that there is no single strategy that would fit all airports, rather a combination of collaborative decision-making and support at local level and an understanding of what the airlines’ need in terms of services and support. The key in attracting airlines and their passengers is in continuously investing in the airport infrastructure and quality services, generating a positive experience overall.
Dr. Schlumberger presented the state of the global economy pointing out that although growth is expected, indicators point towards a general slow-down and depicted the 24% chance of an economic recession, as foreseen by the U.S. Federal Reserve or the more pessimistic forecast from Need Davis’s research group that predicts a 93% chance for a global recession during 2020.

There is a global negative credit impulse, which started in 2017, driven by China’s deleveraging process, China representing one third of the global growth impulse. Germany and Spain experienced a significant drop in industrial output end of 2018. Regarding the global financial stability, the numbers presented did not look optimistic neither, with the world debt exceeding 318% of GDP in the third quarter of 2018, hovering near a record at US$ 244 trillion, which is more than three times the size of the global economy.

In terms of global stability, some of the actions with high impact but moderate likelihood to happen are:

- A highly disruptive cyberattack on U.S. critical infrastructure and networks
- Renewed tensions on the Korean Peninsula following a collapse of the denuclearization negotiations
- An armed confrontation between Iran and the United States or one of its allies over Iran’s involvement in regional conflicts and support of militant proxy groups
- An armed confrontation over disputed maritime areas in the South China Sea between China and one or more Southeast Asian claimants (Brunei, Malaysia, Philippines, Taiwan, and Vietnam)
- A mass casualty terrorist attack on the U.S. homeland or a treaty ally by either (a) foreign or homegrown terrorist(s)
Polling Session Results

With the above discussed global risks and trends the audience was asked to give its opinion on some of the more crucial questions affecting the aviation sector and the economic development overall. Although some of the answers varied compared to the previous two years, the general conclusion is that there is still optimism across the airport sector that growth will be sustained and incurring risks will not have great impact over the sector.

How is the global economy doing compared to one year ago?

- Improved 12%
- Worsened, but still positive long-term 60%
- Worsened, and negative long-term 10%
- Remained the same 18%

How is the air transport industry (airlines and airports) doing compared to one year ago?

- Continued strong growth 22%
- Growing, but slowing 69%
- Levelled off, but stable 2%
- Starting to get into troubles 7%

Does the outcome of BREXIT affect growth in aviation?

- A: A hard BREXIT will have a severe impact on the UK and European aviation markets for some time, but eventually things will settle. 27%
- B: BREXIT, hard or not, already is having a great impact for the European Aviation market, and it will become much worse as it may trigger protectionist aviation policies in many states that are now quite liberal. 30%
- C: BREXIT will have no significant impact on aviation, as we already see measures taken for a smooth transition. 26%
- D: BREXIT will not probably happen, and the UK will find a way to Exit the Brexit! 15%
- E: Yes, but delay major investments for one to two years 2%

Passenger figures are forecasted to double to 8.2 billion by 2037. Should airports go ahead and invest heavily in infrastructure to meet the demand?

- A: Yes, those who don’t will lose market share 59%
- B: Yes, but delay major investments for one to two years 25%
- C: Wait and see, we might have a complete different picture in a few months 10%
- D: No, passenger figures will not double, and future demand will be below current expectations 6%

What are the biggest global challenges for the air transport industry?

- Uncertainties about global stability (recessions, national defaults) 28%
- Unstable financial market 4%
- All of the below 47%
- Risk of a rebound of oil price 8%
- Security and conflict (including refugees) 13%
**Symposium and Conference Feedback**

**Dialog** is the key word that would most adequately describe the event, as during the three days of the conference the audience and panels interacted through the ACI App platform. 170 participants registered and took an active role during all sessions, and 15% provided valuable feedback that will enable organizers to better attend the audience’s future expectations. ACI remains the main communication and learning platform, 80% of the respondents having learnt about the event from ACI, 14% from other sources and only 4% from the World Bank or the event’s website.

<table>
<thead>
<tr>
<th>How did you hear about the ACI-WBG Annual Aviation Symposium?</th>
<th>Poor (=1)</th>
<th>Below Expectation (=2)</th>
<th>As Expected (=3)</th>
<th>Above Expectation (=4)</th>
<th>Excellent (=5)</th>
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<td>ACI</td>
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- Overall, how would you rate the ACI-WBG Annual Aviation Symposium? 0% Poor, 0% Below Expectation, 13% As Expected, 38% Above Expectation, 50% Excellent.
- Overall, how would you rate the relevance of the topics covered? 0% Poor, 0% Below Expectation, 17% As Expected, 42% Above Expectation, 42% Excellent.
- How much did the event meet your learning needs to better understand and increase awareness of specific industry topics? 0% Poor, 0% Below Expectation, 4% As Expected, 42% Above Expectation, 42% Excellent.
- How would you rate the level of debate that was generated during the symposium? 0% Poor, 4% Below Expectation, 4% As Expected, 54% Above Expectation, 38% Excellent.
- How satisfied were you with the speakers? 0% Poor, 0% Below Expectation, 4% As Expected, 46% Above Expectation, 50% Excellent.
- How satisfied were you with the moderators? 0% Poor, 0% Below Expectation, 13% As Expected, 38% Above Expectation, 50% Excellent.
- How useful was the event for business development opportunities? 0% Poor, 0% Below Expectation, 22% As Expected, 30% Above Expectation, 48% Excellent.
- How useful was the event for networking opportunities? 0% Poor, 0% Below Expectation, 8% As Expected, 33% Above Expectation, 58% Excellent.
- How satisfied were you with the representation of symposium delegates (e.g. government, financial sector, etc.)? 0% Poor, 0% Below Expectation, 13% As Expected, 50% Above Expectation, 38% Excellent.
- What are the chances you will attend the symposium in future years? 0% Poor, 0% Below Expectation, 13% As Expected, 35% Above Expectation, 52% Excellent.

Over 80% of the respondents rated the event as above expectations, approximately 50% considering it excellent. The main comments regarded the good global diversity and mix of panelists’ background, as well as the good balance among public and private sector representatives. Charles Schlumberger, Rafael Echevarne, Patrick Lucas, Andy Ricover and David Owens have been voted as the most engaging speakers.

The World Bank Symposium was perceived as a better learning platform rather than a business opportunity, giving a detailed inside over the investors expectations and requirements. 71% of respondents gained knowledge in the area of PPPs, 8% in the pilots’ market shortage, and 42% considered the Practical Exercise as the most relevant and engaging activity.

The expectations of the respondents are to see a higher number of government/regulators and also more airport operators within the panels. The future topics should address aspects such as: innovation in financing mechanisms, solutions in alleviating ATM traffic congestion limitations, economic regulation, infrastructure planning, whilst the most requested topic regarded a more through debate over airport charges.
environmental constraints, as well as the high level of capital investments required. As such, the key risk factors identified were: the volatility of passenger volumes especially during lower economic cycles, how can airports raise their charges in moments when higher CAPEX is required, the physical capacity constraints to further develop, the difficulties in attracting capital with limited investor protection mechanisms in place. Political risks have been considered of importance, however with a lower impact on the activity should there be a strong contract in place guaranteeing for consistency, transparency and predictability. Also there was a conclusion that the more established is a political regime the better the cash flow and overall results of the airport.

Another conclusion of the panel was that economic regulation should be embodied in the concession agreements, as to limit exposure to “innovative” regulatory approaches that could affect the results and that such agreements should be looking for a minimum duration of 35 years, as the building blocks of a successful airport have longer economic lives. Concession agreements need to address issues such as the level of service and continuous investment strategy as to maintain the standards of quality.

Mr. De Rica spoke about the U.S. Airport Privatization Pilot Program, as a good starting framework for the privatization process, nevertheless with some of the execution conditions making it difficult to move forward. He recognized that in the United States there is a shift in the trend, with new partner airports that do not interact anymore via the FAA but rather through the local municipality (as the case of Denver airport), making the partnership easier as there are fewer layers of decisions and regulatory requirements. Having carried out large volumes of investments globally, they recognize that projects requirements can change throughout the negotiation process and is important that airports find a “one stop shop” solution to address all their needs.

As a final conclusion, the airport industry is ready to address the challenges of the complexity of the concession and privatization process under the condition that the contract agreement is drafted diligently. The political and regulatory implications need to be properly accounted for, as well a good balance between the benefits and the obligations of all parties involved.

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