



JOINT MEETING

AIRPORT ECONOMICS PANEL
AND
AIR NAVIGATION SERVICES ECONOMICS PANEL (AEP-ANSEP)

NINTH MEETING

Montréal, Canada, 17 to 19 October 2023

Agenda Item 4: Other business

STATE OF THE INDUSTRY AND OUTLOOK FOR AIRPORT TRAFFIC

(Presented by Airports Council International)

SUMMARY

Although air transport was hit hard by the pandemic, it has steadily recovered in 2022 and 2023. Total passenger traffic increased 43.8 per cent in 2022 compared with 2021, bringing the total global passenger number to 6.6 billion for the full year. This represents a 73 per cent recovery rate compared with pre-pandemic traffic in 2019. Global passenger traffic is forecast to reach 94 per cent of 2019 levels in 2023. Even though demand for leisure travel has remained strong in the first half of 2023, growth levels may be more subdued in 2024 as the effects of higher interest rates are felt across certain economies. Despite several headwinds, the opening up of Chinese aviation markets represents a positive shift in the path to recovery. Moreover, low unemployment rates in some major aviation markets also bodes well for air transport demand. The baseline projections for global passenger traffic indicate that the industry will recover to 2019 levels by 2024. Even with the huge surge in international travel, the recovery of the sector to pre-COVID-19 levels continues to be driven mainly by domestic travel, which is projected to recover to 2019 levels earlier than international passenger numbers. International travel is forecast to recover by 2025.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective – <i>Economic Development of Air Transport</i> .
<i>References:</i>	<i>ACI World Airport Traffic Report</i> <i>ACI World. Airport Key Performance Indicators 2022</i> <i>ACI World. The impact of COVID-19 on the airport business—and the path to recovery</i>

1. THE ECONOMIC IMPACT OF THE COVID-19 CRISIS ON AIRPORTS

1.1 The impact of the COVID-19 pandemic and resultant government restrictions on passenger traffic at airports was significant across all regions of the world. Global passenger traffic declined 61 per

cent in 2020 relative to 2019 (going from 9.2 billion passengers in 2019 to 3.6 billion passengers in 2020).¹ During 2021, passenger traffic experienced a modest recovery, reaching 4.6 billion passengers; this means passenger volume in 2021 was still only 50 per cent of that registered during 2019.

1.2 Airport revenues are from two primary sources— aeronautical and non-aeronautical activities. All sources of non-aeronautical revenues decreased in 2020 compared with 2019. Revenue sources directly affected by passenger volumes, such as retail concessions (-65.2%), suffered the most. When looking at individual aeronautical revenue sources, revenues from passenger-related charges saw, not surprisingly, the largest declines (-65.0%) in tandem with the collapse in traffic. Although airports supported air cargo operations amidst the pandemic, revenues from landing charges plummeted as well (- 42.0%).² In 2021, total airport revenue were down by 43 per cent as compared to 2019.

2. AIRPORT TRAFFIC IN 2022

2.1 Although air transport was hit hard by the pandemic, it has steadily recovered in 2022 and 2023. Total passenger traffic increased 43.8 per cent in 2022 compared with 2021, bringing the total global passenger number to 6.6 billion for the full year. This represents a 73 per cent recovery rate compared with pre-pandemic traffic in 2019.

2.2 Most regions have shown encouraging recovery rates in subsequent years. The Middle East stands out as the region with the most remarkable increase, growing 95.6 per cent in 2022 compared with 2021. Europe also demonstrated substantial gains with an 83.1 per cent increase, fueled by strong demand for leisure destinations. Similarly, Africa recorded notable growth, at 63.7 per cent.

2.3 However, Asia-Pacific lags with a growth rate of 16.7 per cent. This slower recovery can be attributed to multiple factors, including prolonged lockdowns and strict border control measures that dampened demand. Additionally, the re-imposition of testing requirements for inbound travellers from China by certain governments further hindered the region's recovery in 2022. Despite the relatively slow progress, it is projected that Asia-Pacific will experience the most robust recovery among all regions in 2023, reaching 2.9 billion passengers or 87.3 per cent of its 2019 level. This expected rebound indicates a positive outlook for the region's aviation industry moving forward.

2.4 Historically, domestic passenger numbers comprised more than half of all passenger traffic. However, there was a notable increase in international tourism in the years leading up to the pandemic, resulting in international passenger traffic growing at higher rates compared with domestic passenger traffic. From 2011 to 2019, the compound annual growth rate (CAGR) for international traffic was 6.2 per cent, while domestic traffic grew at a slightly lower rate of 4.6 per cent. Despite this growth in international travel, domestic markets remained the dominant force in the global passenger market, accounting for 56 per cent of all passenger traffic in 2019.

2.5 After experiencing its biggest annual increase of the last decade in 2021, growing 15.4 per cent compared with 2020, global cargo traffic decreased -6.7 per cent in 2022. Almost 117 million metric tonnes of air cargo were carried during the year, which is 3 million tonnes below the 2019 volume.

¹ Source: ACI World. The impact of COVID-19 on the airport business—and the path to recovery. <https://aci.aero/2022/02/24/the-impact-of-covid-19-on-the-airport-business-and-the-path-to-recovery-4/>

² Source: ACI World. Airport Key Performance Indicators 2022. <https://store.aci.aero/product/2022-airport-key-performance-indicators/>

3. INTERNATIONAL AND DOMESTIC PASSENGER TRAFFIC

3.1 International traffic is defined as aircraft operations between a designated airport and an airport in another country or territory, whereas domestic traffic is defined as aircraft operations between two airports located in the same country or territory.

3.2 In 2022, international passenger volume saw a significant surge, with slightly over 2.44 billion passengers recorded. This represented an impressive increase of 130.6 per cent compared with 2021. On the other hand, domestic passenger traffic was boosted by a strong recovery in major domestic markets, such as the United States. In 2022, global domestic passenger numbers reached 3.92 billion, an increase of 25.2 per cent compared with 2021.

3.3 All regions posted significant increases in international and domestic passengers in 2022. Asia-Pacific, including China, after long-lasting travel restrictions and intermittent lockdowns, saw a sharp increase in international passenger traffic growth (+331.7%). Globally, international passenger traffic increased 130.6 per cent in 2022 compared with 2021, while domestic passenger grew 25.2 per cent.

3.4 Europe accounted for 56.5 per cent of the world's international traffic in 2022, partly because Asia-Pacific was still reopening to international travellers. Europe is home to many international hubs for connecting intercontinental and intracontinental traffic: Heathrow (2nd), Amsterdam Schiphol (3rd), Charles-de-Gaulle (4th), Istanbul International Airport (5th), Frankfurt (6th) and Madrid (7th) all rank after Dubai in terms of international passenger traffic. Those airports saw their international passenger volume increase in 2022 with the further relaxation of travel restrictions.

3.5 Thanks to the strong recovery of the United States domestic markets, the North American share of global domestic passenger traffic was 39.8 per cent (versus a 39.4% share in 2021). Asia-Pacific accounted for 31.7 per cent, a notable decrease compared with its 33.7 per cent share in 2021.

4. OUTLOOK FOR 2023 AND BEYOND

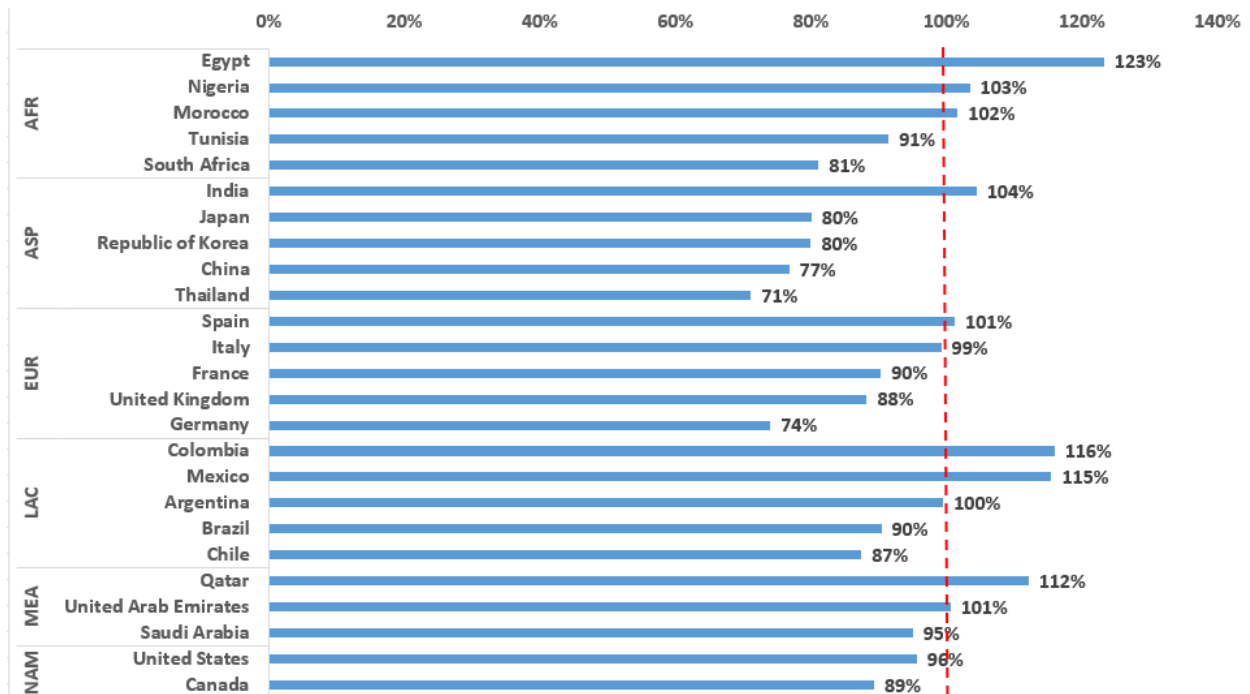
4.1 As the COVID-19 pandemic shaped many near-term policy decisions over the last three years, the global economy faces an array of challenges in 2023. From the ongoing conflict in Ukraine to a looming economic slowdown in many major economies, there are risks that threaten to disrupt the pace of the recovery from the pandemic. The most obvious manifestation of such risks is the significant increase in inflation across many economies. The interplay between geopolitical conflicts and rising prices remained a top economic threat to the global economy in 2023. Many analysts suggest that the inflation rate has already peaked and will subside, facilitated by aggressive monetary tightening by central banks. While higher interest rates help to cool aggregate demand and ensure price stability, it may induce an economic slowdown. Aviation is very much linked to such macroeconomic factors – like any other good or service, the impact of prices and disposable income remain important determinants of air transport demand. Thus, uncertainty regarding a swift recovery of the aviation industry remains omnipresent, especially in the near term.

4.2 The speed of the recovery for 2023 and beyond still depends on several factors with a number of market pendulums moving in opposite directions, thus creating a level of uncertainty. On the one hand, the possible slowing in Gross Domestic Product (GDP) growth in major economies coupled with the rise in airfares due to higher jet fuel prices weigh negatively on demand, representing a downside risk for the industry. On the other hand, strong labour markets with low unemployment rates in many major

economies and the re-opening of China, the second largest aviation market after the United States, represents an important boost to global passenger traffic.

4.3 Chart 1 presents the five busiest country markets by region (as defined in 2019) and ranked by recovery rates—H1 2023 versus H1 2019. Asia-Pacific countries continue to lag other markets except India, at 104 per cent of H1 2019 levels in the first half of 2023. Japan (80%), Republic of Korea (80%), China (77%) and Thailand (71%) all continue to be well below pre-pandemic levels. Elsewhere, such markets as Egypt (123%), Colombia (116%), Mexico (115%) and Qatar (112%) welcomed a surge in demand and are far exceeding their 2019 levels.

4.4 **Chart 1: Recovering countries—top five per region (H1 2023 vs H1 2019)**



Source: ACI World Airport Traffic Database, 2023

4.5 Markets such as Egypt experienced have already significantly exceeded 2019 levels at 123 per cent. Cairo (CAI), the busiest airport and major tourist gateway, is at 135 per cent of 2019 levels in the first half of 2023. The strong flow of tourism to Egypt coupled with ongoing development of airports as well as the operation of new airports has attracted international airlines. EgyptAir is also among the fastest recovering airlines on the African continent.

4.6 Colombia is a notable success. Secondary airports have grown on the back of direct flight connections. Previously, the most viable or sole travel choice entailed a stopover in Bogota. Now, low-cost carriers, Avianca, foreign airlines, and others are all emphasizing additional direct routes linking secondary cities across the country. This paradigm shift extends to encompass enhanced direct connections to international destinations as well. The growth of low-cost carrier model has also grown rapidly with the likes of Ultra Air expanding both domestically and internationally in 2022 and 2023. Finally, the uptick in airline capacity was also bolstered by various governmental support measures. One of these measures included a reduction in value-added tax (VAT) on airline tickets.

4.7 Mexico, meanwhile, was one of the few markets that remained operational throughout the pandemic with no or limited restrictions. The country market has seen strong growth across all its airports. Cancun (CUN), Guadalajara (GDL), Puerto Vallarta (PVR), and Tijuana (TIJ) all show growth during the first half of 2023 compared with their performance in the first half of 2019.

4.8 Global passenger traffic is forecast to reach 94 per cent of 2019 levels in 2023. Although demand for leisure travel has remained strong in the first half of 2023, growth levels may be more subdued in 2024 as the effects of higher interest rates are felt across economies. Despite a number of headwinds, the opening up of Chinese aviation markets represents a positive shift in the path to recovery. The baseline projections for global passenger traffic indicate that the industry will recover to 2019 levels by 2024. Even with the huge surge in international travel, the recovery of the sector to pre-COVID-19 levels continues to be driven mainly by domestic travel, which is projected to recover to 2019 levels earlier than international passenger numbers. International travel is forecast to recover by 2025.

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JOINT MEETING

AIRPORT ECONOMICS PANEL AND AIR NAVIGATION SERVICES ECONOMICS PANEL (AEP-ANSEP)

NINTH MEETING

Montréal, Canada, 17 to 19 October 2023

Agenda Item 3: Potential improvements to guidance for the provision of airports and air navigation services

GUIDANCE DEVELOPMENT ON COMMERCIAL AGREEMENTS BETWEEN AIRPORT OPERATORS AND AIRCRAFT OPERATORS

(Presented by Airports Council International)

SUMMARY

As part of the deliberations of Working Group 2 of the Airport Economics Panel and Air Navigation Services Economics Panel (AEP-ANSEP) which took place in Paris, France, from 22 to 25 May 2023, various definitions in the glossary of Doc 9082 were considered.

One of the definitions discussed was related to commercial agreements between airport operators and aircraft operators. The Working Group agreed that such definitions would be more appropriately placed in other technical guidance of the *Airport Economics Manual* (Doc 9562). With the increased prevalence of commercial agreements and long-term contracts across various jurisdictions as a risk sharing mechanism among parties, and as an alternative to more prescriptive models of economic oversight, the objective of this Working paper is to propose the development of appropriate guidance and definitions for consideration by the AEP-ANSEP and potential inclusion into Doc 9562.

Action by the AEP-ANSEP is found in paragraph 4.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective – <i>Economic Development of Air Transport</i> .
<i>References:</i>	<i>ICAO Meeting Summary – Working Group 2 (AEP-ANSEP), Paris 22nd-25th May 2023</i> <i>ICAO Council Aviation Recovery Task Force (CART)</i> <i>ICAO Guidance on Economic and Financial Measures to Mitigate the Impact of the Coronavirus Outbreak on Aviation</i> <i>Doc 9562, Airport Economics Manual, 4th Edition, 2020</i>

1. BACKGROUND

1.1 As part of the deliberations of Working Group 2 of the Airport Economics Panel and Air Navigation Services Economics Panel (AEP-ANSEP) which took place in Paris, France, from 22 to 25 May 2023, various definitions in the glossary of Doc 9082 were considered.

1.2 One of the definitions discussed was related to commercial agreements between airport operators and aircraft operators. The Working Group agreed that such definitions would be more appropriately placed in other technical guidance of the *Airport Economics Manual* (Doc 9562). With the increased prevalence of commercial agreements and as an alternative to more prescriptive models of economic oversight, the objective of this Working paper is to propose the development of guidance and definitions for inclusion in Doc 9562.

2. RATIONALE FOR ENHANCED GUIDANCE AROUND COMMERCIAL AGREEMENTS

2.1 Long-term contracts and commercial agreements are bilateral agreements between an airport operator and its customers (e.g., air carriers) offered on a non-discriminatory basis. A contract is typically enforceable in courts or make use of other dispute resolution and arbitration frameworks.

2.2 Under this approach, the infrastructure provider enters into a long-term contract with individual customers. The contract specifies the price that aircraft operators pay in exchange for certain volume commitments and often quality of services commitments by airport operators. The contract would specify what charges the company can impose on its customers, the principles for setting those charges, and a contractually binding process for changes in charges. Such contracts are usually comprehensive in their coverage of charging principles, and it may be more effective than other forms of direct or prescriptive regulation but without its regulatory costs. Because risks are also appropriately shared in consideration of longer forward-looking time horizon, economic efficiencies are potentially introduced under such a framework.

2.3 The approach provides a longer-term vision among parties to incentivize growth in traffic, to define triggers for various charging schemes as well as risk sharing mechanisms to smooth out major changes in traffic patterns among other areas. Such agreements have been successful in several jurisdictions and used as the basis for determining airport pricing, and they continue to proliferate in importance with the aim of managing risks in a mutually advantageous manner. States should consider facilitating such bilateral agreements as well as similar alternative forms of economic oversight.

2.4 Examples of States where there has been a long tradition of such commercial agreements at airports include Australia, Canada, Denmark, the United Kingdom, and the United States among other jurisdictions.

2.5 In consideration of the lessons learned from the COVID-19 pandemic and the need for aviation stakeholders to adequately manage and share risks based on common objectives, enhancing the existing technical guidance in Doc 9562 should be considered. This follows on the principles laid out in the *ICAO Council Aviation Recovery Task Force (CART)* and *ICAO's Guidance on Economic and Financial Measures to Mitigate the Impact of the Coronavirus Outbreak on Aviation*.

3. **EXISTING NOMENCLATURE AND PROPOSED GUIDANCE**

3.1 Given the proliferation of commercial agreements in several jurisdictions across the globe and the increased efficiencies they bring between airport operators and air carriers, Doc 9562 currently offers insufficient guidance with limited considerations on the topic. Although the term is mentioned under *Fallback Regulation* (1.32) and *Dispute Resolution* (1.53), the principles underpinning such contracts are never outlined in Doc 9562.

3.2 Based on these considerations, *Section C – Economic Oversight of Airports* would be enhanced with appropriate text passages, nomenclature and definitions that summarizes the key principles and tenets around commercial agreements and related forms of contracts.

3.3 Such inclusions in Doc 9562 could highlight that the resultant bilateral contracts potentially serve as tools to incentivize growth in traffic, to define triggers for various charging schemes as well as risk-sharing mechanisms. Moreover, they can address issues of information disclosure by airports and airlines, appropriate consultation formats, capital expenditure plans, environmental incentives and dispute resolution among other areas.

4. **ACTION BY THE AEP-ANSEP**

4.1 The AEP-ANSEP is invited to:

- a) convene a short-lived Working Group that reviews the appropriate sections of Doc 9562 to enhance and include guidance language and definitions related to commercial agreements and related contracts between aircraft operators and airlines; and
- b) consider and explore how commercial agreements and other bilateral tools between users of infrastructure (air carriers) and airport operators can be used to mitigate drastic changes in traffic and to apply risk-sharing mechanisms in the aftermath of the COVID-19 pandemic.



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NINTH MEETING

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Agenda Item 4: Other business

AIRPORT GROUPS: OPERATING MODEL AND VALUE CREATION

(Presented by Airports Council International)

SUMMARY

Over the past 25 years, the airport industry has changed vastly. In the 1990s, virtually all airports were effectively State-run. In the following years, the industry has opened to external investment in many markets, creating space for a wide range of different ownership and operating models. This context enabled specialized airport operators to leverage their expertise to expand their operations both internationally and domestically, ultimately giving rise to the Airport Group model. An Airport Group is an airport company that operates or has a controlling interest in a portfolio of airports or airport networks. This Working paper analyses the socio-economic impacts of the Airport Group model across the globe based on an operational definition for statistical monitoring purposes. Finally, the paper reaffirms policy considerations related to supporting aviation infrastructure development and financing.

Action by the AEP-ANSEP is found in paragraph 5.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective – <i>Economic Development of Air Transport</i> .
<i>References:</i>	<i>Value creation by Airport Groups: ACI study on the airport group operating model and its benefits to the aviation ecosystem</i> Doc 9562, <i>Airport Economics Manual</i> , 4th Edition, 2020 <i>ACI Policy Brief: Creating fertile grounds for private investment in airports</i> Doc 10140, <i>Assembly Resolutions in Force (as of 4 October 2019)</i>

1. BACKGROUND

1.1 Airports Council International (ACI) World's suite of data and information on the airport industry includes periodic assessments of the airport business as well as management and ownership

models. Each of these models offers unique characteristics and benefits in consideration of their local context and the jurisdictions in which they operate.

1.2 With respect to management and control, the airport landscape can be broadly defined under the umbrella of two distinctive models – single airport and multi-airport operators. As for multi-airport models, the International Civil Aviation Organization (ICAO) provides the following definitions regarding the management of airports:

Airport system: Two or more airports serving the same metropolitan area and operated under a single ownership, management and control structure.

Airport network: Two or more airports within a State operated under a single ownership, management and control structure.

Airport group: Two or more airports operated at the international or multinational level under a single ownership and control structure.

1.3 Although ICAO does not provide a definition for individually managed airports explicitly, the following can be inferred:

Individual airport: A single airport operated under a single ownership and control structure.

1.4 Individual airports are monitored through an array of international benchmarks via ACI's data and tools – most notably the Airport Service Quality programme that monitors customer satisfaction and Airport Carbon Accreditation, which supports industry efforts to decarbonize. These are two important programmes among others that monitor individual airport operators.

1.5 While some airports operate as standalone entities, several airports within an urban agglomeration or municipality may be part of an airport system under a single management structure. This is especially prevalent in North America. There are also cases where airport networks have flourished as a business model. An airport network is based on a national transportation strategy, to ensure connectivity for peripheral and remote regions. This model helps to sustain smaller airports within airport networks and can be found in Africa, Asia, Europe and Latin America.

2. THE SOCIO-ECONOMIC IMPACT OF THE AIRPORT GROUP MODEL

2.1 Over the past 25 years, the airport industry has changed immeasurably. In the 1990s, virtually all airports were effectively State-run. In the following years, the industry has opened to external investment in many markets, creating space for a wide range of different ownership and operating models. This context enabled specialized airport operators to leverage their expertise to expand their operations both internationally and domestically, ultimately giving rise to the Airport Group model. An Airport Group is an airport company that operates or has a controlling interest in a portfolio of airports or airport networks. As such, the model is not mutually exclusive from other management structures. Adapting the ICAO definition of what constitutes an airport group will be an important consideration of the dynamic nature of the industry.

2.2 The airport group model has come to play an increasingly significant role in the industry, and yet there has been little research conducted into how these groups operate and generate value and

benefits. A recent published study in 2022 commissioned by ACI to global consultancies ICF and Oxford Economics aimed to address this gap – *Value creation by Airport Groups: A study on the airport group operating model and its benefits to the aviation ecosystem*. Airport Groups¹ were found to account for 29 per cent of global airport passenger traffic and 23 per cent of global air cargo volumes in 2019. They also make an important contribution to the global economy. Through their airports' operations, spending and wage payments across the globe, Airport Groups supported a \$74 billion gross value-added contribution to global gross domestic product (GDP), 2.7 million jobs, and \$12.8 billion in payments to governments in 2019.

2.3 By providing the infrastructure for over 2.7 billion passengers to travel to their destination, Airport Groups facilitated \$266 billion in tourism spending in 2019. This spending supported an estimated \$350 billion gross value added (GVA) contribution to global GDP. That's equivalent to \$1 in every \$250 of global GDP and approximates to the economy of Hong Kong for sake of comparison.

2.4 This spending also sustained nearly 13 million jobs (one in every 270 jobs) and stimulated an estimated \$82 billion in payments to governments in 2019. Also, by enabling connections between millions of people across the globe, Airport Groups facilitate knowledge sharing between different groups of people and open up foreign investment opportunities. By 2040, it is estimated that the level of connectivity provided by Airport Groups in 2019 will have boosted global long-run productivity by 0.55 per cent.

2.5 Almost half of all airports within Airport Groups are owned by private entities with 210 out of 425 airports. 122 airports are operated by groups in public ownership, and 93 are operated by public-private partnerships. The passenger volume is almost equally distributed between private, public, and public-private ownership, with 938 million, 931 million and 796 million passengers respectively in 2019.

2.6 Of the 2.7 billion passengers travelling through airports that belong to a group, European airports accounted for 1.7 billion passengers, followed by airports in Asia-Pacific with 713 million, and Latin America and the Caribbean with 189 million, North America with 35 million, the Middle East with 66 million, and Africa with 12 million.

3. INCREASED COMPETITION AND BENEFITS TO CONSUMERS

3.1 With the advent of airport privatization over the last decades in many jurisdictions, many airport groups are active in the market to own or operate other airports (in whole or in part). The number of companies in this space has grown significantly in the past decades – in addition to other degrees of airport competition that may vary across jurisdictions and market segments, there is also competition between group entities at the time the concession or management contract is tendered. Airport groups and other operators are assessed on their record and performance, including in attracting services and growing business, reinforcing the competitive pressures from other sources.

3.2 Based on the statistical definition of Airport Groups, 27 Airport Groups comprising 425 airports can be identified globally (see Appendix, Table 1) as of 2021. The accrued benefits from the Airport Group model go beyond economies of scale and scope in their procurement. For instance,

¹ For statistical monitoring purposes, an Airport Group is defined as an airport company that operates or has a controlling interest in at least two of the following: Airport network; Airport system; Individual airport (not in an airport network or system). To have a controlling interest, the group must either be the largest shareholder and/or the shareholder responsible for the day-to-day operation of the airport or of a terminal.

smaller airports can benefit from greater knowledge sharing and technological solutions that would otherwise be extremely difficult to develop on their own.

3.3 Group structures have also important financial benefits due to increased access to cheaper and more diverse sources of capital, which in turn make individual airports more resilient in times of crisis. Additionally, Group resources support the development and utilization of best practices at the local level.

3.4 The fact that targets and standards are set at a Group level – with a pool of shared resources for their implementation – supports the achievement of high-quality service goals and increases overall operational efficiency. As an example, airports that joined an Airport Group had an average year-over-year increase of 1.3 per cent in their Airport Service Quality (ASQ) score – a benchmark developed by ACI to measure passenger satisfaction – compared to 0.9 per cent for all airports. This means that airports increase their ASQ scores 1.4 times faster than other airports in the years following their joining of a Group.

4. POLICY CONSIDERATIONS

4.1 ACI does not prescribe any specific type of management and ownership model. In short, airports should be permitted to operate under a range of models depending on local circumstances. Regardless, in an economic climate where States are increasingly cutting government expenditures to reduce the growing debts that hang over many of their economies, government financing and full ownership of airports are not always viable and sustainable options. By the same token, many national governments find themselves in a predicament where infrastructure must be modernized in a sustainable manner and where the infrastructure is unable to accommodate growing air transport in many jurisdictions.

4.2 In instances where governments have chosen to include private participation in airport development, privatization processes must be open, transparent and attractive to airport groups and international investors. Governments need to consider incentives to attract potential national and foreign investors and provide the clarity investors need on the issues they face. Ensuring a clear and consistent legal framework exists prior to private sector participation or privatization is also essential.

4.3 Similar considerations have been adopted in the ICAO Resolutions from the 40th Session of the Assembly (October 2019), regarding Aviation infrastructure management and financing,

“The Assembly:

Encourages Member States to establish a transparent, stable and predictable investment climate to support aviation infrastructure development, for example, by engaging stakeholders, diversifying funding sources and elevating the role of private sector, including through private investment, business reform, private finance initiatives, public-private partnership and various incentive schemes;”

5. ACTION BY THE AEP-ANSEP

5.1 The AEP-ANSEP is invited to:

- a) note the growth and proliferation in the number of airport groups across the globe and their contribution to the airport industry and broader economy;

- b) adapt and enhance the definitions in Doc 9562 in light of current market realities as the basis to effectively monitor the various airport management and corporate governance models across the globe; and
- c) reaffirm the ICAO Resolution adopted by Member States at the 40th Session of the Assembly related to aviation infrastructure management and financing.

APPENDIX

Table 1²: Airport Groups

Airport group³	Number of airports	Passengers in million (2019)	Country of headquarters
AENA	55	307	Spain
Capital Airports Holding	53	266	China
VINCI Airports	51	235	France
Fraport	23	202	Germany
Groupe ADP	11	163	France
Malaysia Airports Holdings Berhad	35	141	Malaysia
Royal Schiphol Group	7	130	Netherlands
Changi Airports International	9	127	Singapore
GMR Airports	3	103	India
Ferrovial	4	95	Spain
Flughafen Zurich AG	7	87	Switzerland
AviAlliance	4	85	Germany
Corporación América Airports	52	84	Argentina
Incheon International Airport Corporation	2	76	South Korea
TAV Airports	12	66	Turkey
Munich Airport International	3	66	Germany
Atlantia	5	64	Italy
Manchester Airports Group	3	62	UK
Grupo Aeroportuario del Sureste de Mexico	16	56	Mexico
daa Group	3	51	Ireland
Grupo Aeroportuario del Pacifico	14	50	Mexico
Flughafen Wien AG	3	40	Austria
EGIS Group	17	30	France
Novoport Airport Holding	16	22	Russia
Vantage Airport Group	6	21	USA
AvPorts	5	15	USA
Airports of Regions	4	14	Russia

² Value creation by Airport Groups: ACI study on the airport group operating model and its benefits to the aviation ecosystem

³ Airport groups with greater than 10 million passengers per annum



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Agenda Item 3: Potential improvements to guidance for the provision of airports and air navigation services

DEVELOPMENT OF GUIDANCE MATERIAL TO ADDRESS THE IMPACT OF BLACK SWAN EVENTS ON REGULATED AIRPORT CHARGES

(Presented by Airports Council International)

SUMMARY

The meeting of Working Group 2 – Review of ICAO’s Policies on Charges for Airports and Air Navigation Services (Doc 9082) – was held in Paris, France, from 22 to 25 May 2023. As part of the follow-up recommendations of the Working Group, participating members recognized the need to develop a standalone document consistent with the ICAO Council Aviation Recovery Task Force (CART) principles to consider guidance on regulated airport charges amidst external shocks or “black swan” events. In the spirit of the Paris deliberations, the objective of this Working paper is to outline the problem statement and offer points of consideration to the AEP-ANSEP in developing guidance material. It is deemed as an initial step and contribution to industry collaboration from the perspective of airport operators.

Action by the AEP-ANSEP is found in paragraph 5.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective – <i>Economic Development of Air Transport.</i>
<i>References:</i>	<i>ICAO Meeting Summary – Working Group 2 (AEP-ANSEP), Paris 22nd-25th May 2023</i> <i>ICAO Council Aviation Recovery Task Force (CART)</i> <i>ICAO Guidance on Economic and Financial Measures to Mitigate the Impact of the Coronavirus Outbreak on Aviation</i> <i>ACI World. Airport Key Performance Indicators 2022</i> <i>ACI World. The impact of COVID-19 on the airport business—and the path to recovery</i>

1. BACKGROUND

1.1 The meeting of Working Group 2 of the Airport Economics Panel and Air Navigation Services Economics Panel (AEP-ANSEP) was held in Paris, France, from 22 to 25 May 2023. The main objective of the Paris meeting was to conduct a comprehensive review of ICAO's Policies on Charges for Airports and Air Navigation Services (Doc 9082), to ensure the relevance and responsiveness of the policies to States' needs and industry development, including with respect to the impact of the COVID-19 pandemic.

1.2 As part of the discussions in Paris, meeting participants *recognized that external shocks or "black swan" events may have a significant impact on the industry and there is a need to develop a standalone document consistent with the CART principles to help the industry cope with the impact and the recovery. It was noted that the development of this guidance be done in a collaborative manner recognizing input from service providers and the user community. It was highlighted that ICAO developed the Guidance on Economic and Financial Measures during the COVID-19 pandemic, based on the CART principles and existing ICAO policies and guidance, which can be used as basis for the development of such guidance.*

1.3 In the spirit of the Paris deliberations and as a follow-up item to develop standalone policy guidance, the objective of this Working paper is to outline the problem statement and offer points of consideration to the AEP-ANSEP in developing such guidance material – it is deemed as an initial step and contribution to industry collaboration from the perspective of airport operators.

2. REGULATED AIRPORT CHARGES AMIDST A BLACK SWAN EVENT

2.1 Various models of airport economic oversight of airport charges have been implemented at national level, including price-cap, cost plus, or rate of return, light-handed regulation, and no regulation. For the regulated approaches, in the first being the cost-plus model, the level of airport charges is based on the actual cost of providing facilities and services, including a fair return, usually set on an annual basis, and the second, the price cap model, the maximum level of airport charges and its evolution are typically set based on inflation. Both approaches rely upon the ex-ante determination of the targeted total revenues of the airport operator based on the value of its regulated asset base and pre-determined estimated cost of capital. This is also known as the Regulated Asset Base – Weighted Average Cost of Capital approach to airport charges or the RAB-WACC model.

2.2 As airport traffic collapsed to unprecedented levels during the COVID-19 pandemic, airport operators reduced their costs to the largest practical extent. In actual fact, many of them had to endure additional costs due to health and sanitation measures. Moreover, the asset-intensive and high fixed-cost nature of the airport industry means that reductions in airport costs are not proportionate to the drop in airport traffic, as it is illustrated in Table 1. In simple terms, and as a generic example, if traffic drops by 60 per cent, it is largely infeasible to reduce airport costs by 60 per cent as airport operators must continue to depreciate their runways, taxiways, aprons and terminals. More than one-third of total airport costs are capital costs which are not adjustable.

2.3 The resultant loss of passenger traffic significantly weakened revenues. The revenue shortfall led to increased debt levels to cover costs, altered risk profiles for some airports, and a contraction in capital investments in infrastructure to conserve cash across many jurisdictions. The direct impact of black swan events on balance sheets has a direct correlation to funding airports long-term investment on capital markets.

2.4 The stylized example of the conventional building blocks model to airport charges in Table 1 provides an illustration based on a steep decline in traffic volumes. This means that a plunge of 60 per cent in traffic units is accompanied by a 24 per cent reduction in the overall cost base, resulting in a 90 per cent spike in unit costs and hence a similar jump in the basket of charges levied on users.

2.5 The example in Table 1 below illustrates that the building-blocks approach inherently acts as a double-edged sword. In a context of robust traffic growth and sound cost management exercised by airport operators, airline users may benefit from reduced airport charges, as the overall cost base will be growing at a slower pace than traffic.

Table 1: Stylized example of the building blocks approach amidst a black swan event

	2019	2020	% Change	Comment
Airport costs: (1) Operating expenses + (2) Depreciation + (3) Cost of capital (RAB x WACC)	\$1,000	\$760	-24%	At least 1/3 of airport costs are fixed with many operating expenses semi-fixed (Operating expenses assumed to have an elasticity of 0.6)
Traffic units	100	40	-60%	Airport traffic decreases by 60% in 2020
Unit cost (Airport costs / Traffic units)	\$10.00	\$19.00	+90%	Based on the building blocks approach, the sum of total costs is divided by the traffic units

2.6 In the context of the pandemic, many airport operators did not increase charges to sufficiently cover the rise in unit costs despite the consideration for the regulated building blocks formula. National regulatory frameworks require sufficient advance notice to airlines (and often consultation with the airlines) of changes in airport charges. This makes it challenging for airports to respond dynamically via their published charges schedule. In fact, many airports did the opposite and aimed to stimulate a recovery with discounts and incentives.

3. ASYMMETRIC RISK AND THE COST OF CAPITAL

3.1 Under a regulated regime of airport charges based on the building blocks formula that do not adjust to actual market conditions, there is an important consideration to highlight – users of airport infrastructure benefit from lower charges during a growth cycle whereas airport operators also require consideration amidst a major contraction. This regulatory asymmetry needs full consideration and reconciliation in the post-pandemic recovery and future black swan events. This means that costs incurred for aeronautical services through the pandemic need to be recovered through charges and fees, especially in cases where government financial support is insufficient to cover those costs.

3.2 State entities responsible for the economic oversight of airports have a role in allowing for the recompense of unrecovered costs following a crisis and striking an appropriate balance with users of infrastructure. This could be in the form of gradual increases in charges or some other agreed consideration. However, if costs remain unrecovered and charges static following a black swan event, this will further reveal the inherent downside asymmetric risk that airports face with major traffic declines. If regulatory frameworks do not remedy this one-sided asymmetric risk, the risk premium required by debt and equity holders increases, thereby pushing up the cost of capital. This would have upward pressure on future airport charges.

3.3 When regulators approve the compensation to airports for unrecovered costs via future regulated charges, this can take account of direct State support. An important example of State support, among others, was the United States' Coronavirus Aid, Relief, and Economic Security Act (CARES) and the American Rescue Plan Act (ARPA), which helped stabilize some of the financial shortfall of airports in the country. This also helped mitigate unfavourable credit ratings. However, in jurisdictions where State financial support was insufficient, unrecovered costs via future regulated charges represent the alternative.

4. POINTS FOR CONSIDERATION IN DEVELOPING STANDALONE GUIDANCE ON BLACK SWAN EVENTS

4.1 As part of the collaborative effort to develop guidance material related to the economic oversight amidst a black swan event, ACI proposes several balanced points for the AEP-ANSEP to consider:

4.1.1 **Considerations for regulatory consistency** – Airport investors and creditors require regulatory consistency and certainty in jurisdictions where aeronautical revenues are regulated. Any increased uncertainty regarding economic oversight and the future treatment of regulated airport charges inevitably heightens the risk profile of airports and impacts the cost of capital adversely. From an industry perspective, the inherent asymmetric risk that airports face on the downside and any resultant policy uncertainty regarding cost recovery mechanisms must be mitigated in this context.

4.1.2 **Considerations for the long-term interests of passengers** – Regulatory inconsistencies on airport charges and the resultant changes to risk profile of airports inevitably impacts end users. Such costs will ultimately be borne by travellers and consumers in the form of higher airport charges in the future as a result of the upward pressure on the cost of capital. Inadequate investment in airport capacity and quality of service could also be adversely impacted as a consequence.

4.1.3 **Considerations for aircraft operators and cost recovery mechanisms** – A drastic and sudden spike in airport charges based on the building blocks methodology as result of a major downturn in traffic is clearly unfavourable for users of infrastructure such as aircraft operators. Therefore, there may be considerations for gradual incremental increases in charges over multiple time periods depending on the context thereby striking a balance between the impact of increased charges on users and regulatory consistency related to cost recovery.

4.1.4 **Considerations for direct State financial support** – In accordance with ICAO CART, States should support financial relief strategies to help the aviation industry and its sustainability. Such financial support packages for airport operators could equate to the revenue shortfall to cover the unit charge from the building blocks methodology. In turn, this could offset any required increase in charges.

4.1.5 **Considerations for risk-sharing mechanisms** – Traffic risk-sharing mechanisms can be built into multi-year pricing periods for regulated airports, calibrated to ensure incentives for the airport to strive for growth, while protecting users from overpaying and the airport from being undercompensated for their investment. Outside of a regulated context, airport operators and aircraft operators may also negotiate bilateral commercial agreements and contracts. This provides a longer-term vision among air transport partners to incentivize growth in traffic, to define triggers for various charging schemes as well as risk-sharing mechanisms to smooth out major changes in traffic patterns among other areas. They are typically in line with the principles of transparency and non-discrimination. Such agreements have been successful in several jurisdictions, and they continue to proliferate in importance with the aim of managing risks in a mutually advantageous manner. States should consider facilitating such bilateral agreements as well as similar alternative forms of economic oversight.

4.1.6 **Considerations for existing case studies and best practice guidance** – It will be important for States and members of the AEP-ANSEP to survey the array of national and regional case studies and best practice material across the globe in developing guidance material. For instance, the Thessaloniki Forum¹, a group of Independent Supervisory Authorities in the European Union that provide learnings on best practices in the economic regulation of airports, concluded that since economic regulation was not designed for “black swan” exceptional circumstances like COVID-19, regulators should consider allowing airports to recover costs that were unrecovered in the past via future charges.²

4.1.7 In addition to policy briefs and research from industry and observer organizations, members of the AEP-ANSEP may also want to consider existing language and citations in the ICAO *Guidance on Economic and Financial Measures to Mitigate the Impact of the Coronavirus Outbreak on Aviation* as well as the CART principles as the basis for developing such guidance material.

5. ACTION BY THE AEP-ANSEP

5.1 The AEP-ANSEP is invited to:

- a) consider guidance for States that outline approaches to mitigate the impact of policy decisions on the risk profile of airports, whilst striking the appropriate balance between users of infrastructure, the long-term interests of passengers, and cost recovery mechanisms for airport operators;
- b) consider recommendations to States to establish relief funds for airports as a proactive measure to maintain the industry's resilience and sustainability;
- c) consider and apply learnings from the European Union's Thessaloniki Forum paper on Airport Charges in Times of Crisis, language from the CART in the standalone guidance material as well as the best practice measures across jurisdictions amidst and following the COVID-19 pandemic; and
- d) consider and explore how commercial agreements and other bilateral tools between users of infrastructure (air carriers) and airport operators can be used to mitigate drastic changes in traffic and to apply risk-sharing mechanisms as part of the standalone guidance material.

– END –

¹ European Forum of airport charges regulators from 28 countries and 5 international industry organizations.

²Source: Thessaloniki Forum of Airport Charges Regulators. (2022). Airport Charges in Times of Crisis. <https://ec.europa.eu/transparency/expert-groups-register/core/api/front/document/71737/download>



JOINT MEETING
AIRPORT ECONOMICS PANEL
AND
AIR NAVIGATION SERVICES ECONOMICS PANEL (AEP-ANSEP)

NINTH MEETING

Montréal, Canada, 17 to 19 October 2023

Agenda Item 4: Other business

**ENSURING METHODOLOGICAL INTEGRITY AND CONSISTENCY IN THE GLOBAL
DATA ON AIRPORT CHARGES AND COSTS**

(Presented by Airports Council International)

SUMMARY

Effective decision making requires robust and consistent data over time. The integrity of the industry data is paramount and should serve as a key input to the deliberations of the AEP-ANSEP. This Working paper presents key data that has been consistent over time from – the Airports Council International (ACI), the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO). As an impartial source for the industry and decision makers, the paper recommends that the ICAO Secretariat has an important role in ensuring the timely collection and dissemination of airline infrastructure cost data.

Action by the AEP-ANSEP is found in paragraph 6.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective – <i>Economic Development of Air Transport</i> .
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<i>References:</i>	<i>ACI Airport Economics Report and Key Performance Indicators</i> <i>IATA World Air Transport Statistics (WATS)</i> <i>ICAO Aviation Data</i> <i>AEP-ANSEP/9-WP-14, Increased Burden of Airport and ANSP Charges on the Global Cost of Air Transport</i>
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1. BACKGROUND

1.1 Effective decision making requires robust and consistent data over time. The integrity of the industry data is paramount and should serve as a key input to the deliberations of the AEP-ANSEP.

1.2 This Working paper presents key data that has been consistent over time from – ACI, IATA and ICAO. As an impartial source for the industry and decision makers, the paper recommends that the

ICAO Secretariat has an important role in ensuring the timely collection and dissemination of airline infrastructure cost data. This will mitigate claims based on partial data and erroneous analyses by Observer organizations that serve the objectives of a smaller segment of the aviation ecosystem.

2. A TWO-SIDED COIN – THE INDUSTRY AIRPORT CHARGES DATA ON AIRLINE COSTS (FOR USERS) AND REVENUES (FOR AIRPORTS)

2.1 Airport aeronautical revenues from charges on a per passenger basis saw a decrease of 4.3 per cent on a per annum basis over the five-year period between 2014 and 2019 after adjusting for inflation. Landing charges levied on airlines on a per unit basis saw an even greater average decrease of 4.8 per cent on a per annum over the same period.

2.2 Leveraging IATA’s own data for 2020, at the depths of the crisis, also shows clear evidence of a decrease in user charges. The airline association’s analysis of charges, which contain both air traffic control and airport charges, show that these charges are only 4.9 per cent and 5.2 per cent of airline cost items in 2020 and 2021 respectively. Consistent with the historical data from ACI, IATA’s data also show a decreasing trend in charges as a percentage of airline costs back to 2015. All of this information is available for easy and quick perusal in the published IATA World Air Transport Statistics (WATS) over the last years.

2.3 However, it should be noted that there are caveats on the IATA data sample. According to the IATA World Air Transport Statistics 2020 edition, there were 1,472 commercial airlines in the world. In 2019, IATA consisted of 297 airline members (according to the IATA Annual Review 2020). This means that IATA represents only 20.2 per cent of commercial airlines globally. Thus, the statistical representativeness of the IATA dataset is unclear.

2.4 Appealing to a neutral data source such as ICAO, airport charges as a percentage of airline operating expenses on international scheduled services have been in the realm of 4 per cent for almost three decades (with the maximum reaching 5.3% and minimum at 3.1%). In fact, airport charges as a percentage of airline operating expenses reached its lowest levels ever recorded in 2021 at 3.1 per cent.

2.5 From an airport revenue perspective based on the ACI Airport Economics data, the proportional share of airport aeronautical revenues from passenger charges and airline related charges was 43 per cent and 57 per cent respectively in 2021 – The underlying sample data represented 82 per cent of 2019 global passenger traffic. If we apply the respective shares to the ICAO figure mentioned above (3.1%) to generate the equivalent proportional cost for passenger charges in 2021, a figure of 2.3 per cent is estimated.

3. WHY DO AIRPORT CHARGES AND THE RESULTANT DATA GET SO MUCH ATTENTION?

3.1 In general, it is clear that airport charges represent a small percentage of airline costs and have shown a real decline during and prior to the pandemic. It begs question—if airport charges are so small with respect to overall airline costs, why do airlines invest resources in this cost avoidance? Like airports, the reason behind hinges on the fact that many airline costs are fixed or semi-fixed. Moreover, airlines are “price takers” on many items in that they have very little or no bargaining power on input prices. An example of this in the short run is aircraft fuel and oil, among others. The only place where there

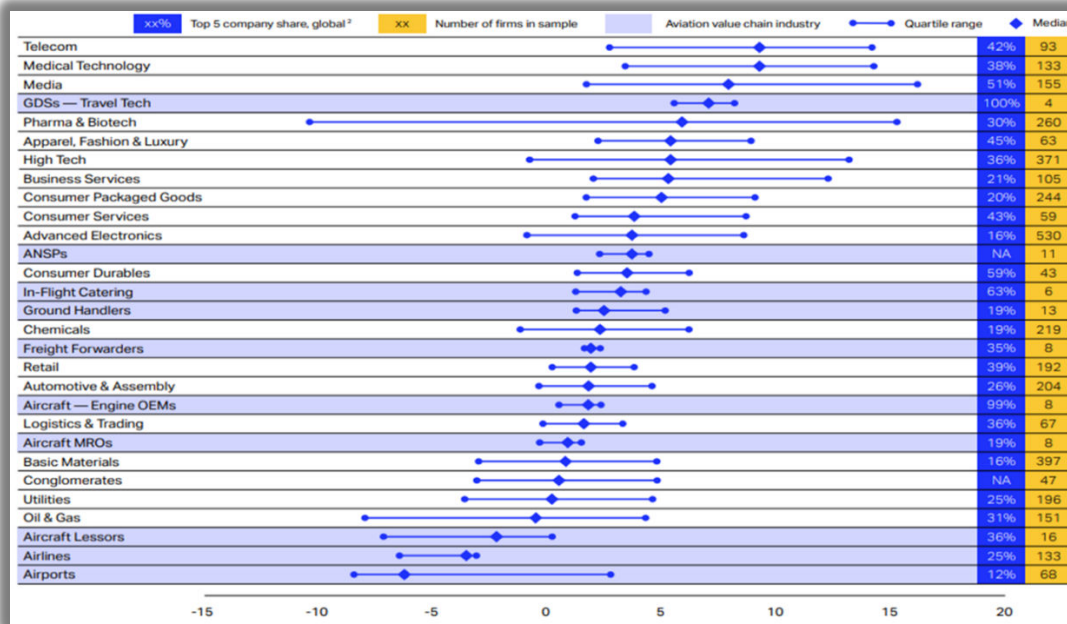
bargaining power is on minimizing airport charges, which marginally help the airline bottom line. Over the decades, the airline lobby has been quite successful in seeking price controls from regulators which has resulted in a systematic over-application of price regulation at airports even when competitive factors dictate otherwise. As such, the ICAO Secretariat has an indispensable role to provide impartiality in the collection of airline cost data on an ongoing basis.

4. THE AIRPORT BUSINESS AMIDST THE PANDEMIC AND RECOVERY

4.1 During pre-pandemic times, as much as 70 per cent of airports provided rebates and other incentives to airlines to boost connectivity and passenger volumes. With the collapse in traffic amidst the pandemic, many airports increased these rebates and incentives to stimulate traffic growth even though airports were unable to cover their costs in the absence of State support. In some jurisdictions, certain charges were even waived altogether implying that many costs remain unrecovered.

4.2 Amidst a major shock, the challenges reside in the building blocks approach to regulation (Costs/Traffic) – In fact, charges are supposed to rise based on the conventional formula following the collapse in traffic levels. Under a regulated regime of airport charges that do not adjust to actual market and demand conditions, there should be full awareness of the fact that the regulated formula that protects airlines in good times also requires protecting airports in difficult times – This regulatory asymmetry needs full consideration and reconciliation in the post-pandemic recovery. Like airlines, there are some profitable airports. However, many airports operate at a loss. According to IATA, in a recent study commissioned to McKinsey & Co., airports are the worst performing sector over the last 20 years. There is a clear inconsistency between what IATA presents in one Working paper for the AEP-ANSEP where it pushes for tighter regulation versus analyses that are produced by IATA Economics.

Financial performance across industries - Economic profit margin quartile range by industry (2002-2021)



Source: IATA based on McKinsey Corporate Performance Analytics

5. **EXERCISE CAUTION IN INTERPRETING DATA ANALYSES**

5.1 IATA presents a chart on infrastructure usage costs and percentage changes over time from 2007 to 2019 (Working paper 14). It is inconsistent with ICAO's published figures but also IATA's own data published in the WATS. Caution should be exercised in interpreting the analysis in this paper based on the patchwork of consolidated data across 6 sources varying in data coverage with an elusive estimate of the base year (2007) to exaggerate a percentage change. Moreover, inflation adjustments also need consideration, which were not explicitly communicated in Working paper 14.

5.2 Secondly, a comparison in absolute revenues over time as a means to estimate infrastructure usage costs provides a misleading analysis of costs in a context where there were significant capital investments in both brownfield and greenfield operations over the 12-year period. The increase in absolute revenues over time (and costs) correlates directly to the rapid rise in traffic following the Global Financial Crisis. Thus, any increase in absolute revenues (and costs) is reflective of the expanded capacity to accommodate air transport demand. Metrics that consider **average unit costs** (airline costs / traffic) provide a more effective and statistically sound measure of cost management and productivity over time.

6. **ACTION BY THE AEP-ANSEP**

6.1 The AEP-ANSEP is invited to:

- a) recommend that the ICAO Secretariat continue to take the lead in the collection, dissemination and communication of infrastructure costs borne by airlines and other users in coordination with States and Observer organizations in order to ensure the integrity and impartiality of the industry data; and
- b) consider key metrics produced by the ICAO Secretariat related to airline costs such as **airport user charges as a percentage of operating expenses** and **average unit costs of airlines (by expense type)**.

– END –