AIRPORTS COUNCIL INTERNATIONAL

Policy Brief

Path to the airport industry recovery — Restoring a sustainable economic equilibrium

2020 | 03

AIRPORTS COUNCIL INTERNATIONAL

Airports Council International (ACI) advances the collective interests of, and acts as the voice of, the world's airports and the communities they serve, and promotes professional excellence in airport management and operations.

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Policy Brief: Path to the airport industry recovery — Restoring a sustainable economic equilibrium
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Publications Department
ACI World
800 rue du Square Victoria
Suite 1810, PO Box 302
Montreal, Quebec H4Z 1G8
Canada
Email: publications@aci.aero
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This policy brief is focusing primarily on the recovery policy responses from an economic and finance perspective and. incorporates a wide array of inputs from ACI member airports, World business partners and colleagues from the regional offices. The information contained in this publication is subject to constant review in light of changing requirements and regulations.

A broad range of other considerations are equally important for the airport industry, including but not limited to facilitation, communications, safety and security and operations. Industry stakeholders and readers at large are welcome to familiarize themselves with other ACI guidance material and best practices.

Contents

Preface

The air transport ecosystem and the airport sector, in particular, are among the industries most affected by the global COVID-19 health crisis. Coming to a virtual standstill by the month of April, the industry confronted a crisis of liquidity and existential uncertainty. The outbreak resulted in fundamental shifts in both demand and supply parameters of air transportation and airport infrastructure and services.

Efficient transportation services are considered key drivers of economic and social development, but the current circumstances largely undermine the ability of aviation to further contribute, as the industry itself has entered, temporarily at least, survival mode.

Established in 2015, the United Nations Sustainable Development Goals (UN SDGs) call on the international community to pledge a plan of action based on 17 global targets that aim to ensure prosperity, peace and eradicate poverty by 2030. Aviation indeed plays a role in 15 of the 17 UN SDGs. Airports, more specifically, have been major supporters of Goals 8, 9 and 10 concerning work and economic growth, industry, innovation and infrastructure, and reduced inequalities. Additionally, airports and aviation support other goals, such as reducing poverty, facilitating access to quality education, promoting gender equality, building sustainable cities and communities, and partnering for the goals with other industries. With the industry grounded and airports sitting empty and bereft of activity at the moment, there is a risk that the contribution to achieving these goals through a thriving aviation sector will be set back.

The recovery of air transport is indispensable to the recovery of the global economy, to the reconnecting of the world and the return of many jobs lost because of the crisis. Airports are an integral part of the aviation ecosystem, and therefore require a timely and appropriate policy support that will facilitate the recovery of the entire industry. ACI recognizes that due to the high degree of interdependencies in the industry, all key players should benefit from government policies that aim to support the industry—airports depend on their customers to the same extent as the users of air transport and numerous suppliers. Therefore, coordinated and targeted mechanisms to facilitate the recovery of air transport and airports would be indispensable.

ACI believes that restoring a sustainable equilibrium between the demand for and supply of airport infrastructure and services is quintessential to continue the collective pursuit of the UN SDGs, most of which are placed at risk. Consequently, governments are urged to consider the role that aviation plays in achieving these SDGs and to examine the policy recommendations that will facilitate the sustainable recovery of airports—thriving economically and fostering development, delivering social benefits and pursuing the best environmental practices.

KEY FINDINGS:

- Air travel is essential for trade, business, tourism, and economic growth. Aviation's direct, indirect, induced and tourcatalytic employment effect generates 87.7 million jobs globally. This is comparable to the populations of Germany or Turkey. Aviation is indispensable for tourism, a major engine of economic growth, particularly in developing economies. Globally, 58% of international tourists travel by air.

- Air cargo is a major contributor to global trade and has been especially important in the current pandemic. While air cargo comprises less than 1% of shipped volumes traded globally as compared to other modes of transport, it represents as much as 35% of value.

- Loss of consumer confidence is a major obstacle for air transport recovery. While administrative factors are controlled by the government and hence airports have little or no control, consumer confidence represents an area where airports are investing resources to regain air travellers. Recent traveller surveys reveal that some 58% of the respondents indicated that they have avoided air travel, with 33% suggesting that they will avoid travel in the future as a continued measure to reduce the risk of catching COVID 19.

- The global economy has slipped into one of the deepest recessions on record. Marked by a sharp decline in economic activity and rising unemployment, it implies lower incomes and a lower propensity to fly. Statistical evidence across an array of industry studies suggests that a 1% decrease (increase) in global gross domestic product (GDP) results in a more than proportional 1% decrease (increase) in the demand for passenger air travel.

- International aviation is heavily taxed. The economic benefits of tax reductions far exceed the actual tax revenues of US$ 90 billion based on taxes that are levied on passengers. The macroeconomic impact of a reduction in passenger-based taxes, including indirect, induced and catalytic impacts, is estimated at an additional total of 5.2 million jobs and US$ 180 billion in global GDP.

- Airports' revenue-generating capabilities and financial performance were further impaired by a fast decline in non-aeronautical activity. The demand fell not only proportionally with respect to traffic, but in many instances even deeper. As a result, many outlets which remained open to respect contractual obligations found it economically unsustainable to continue to trade still incurring basic operating expenses, such as rent and staff costs, in a context of low traffic volumes. On average, airports have experienced a 25% decline in commercial revenues for a given passenger in 2020. The aviation industry is characterized by a high economic multiplier, and aviation jobs are, on average, 4.3 times more productive than other jobs. By opening markets and enabling transfer of knowledge and other catalytic effects, aviation also makes jobs in other sectors more productive. Globally, each aviation job generates close to US$ 117 thousand in gross value added (GVA).

- The typical airport hub has as many as 40 thousand employees working on site. This number includes employees from the airport operator; however, many other jobs are generated from numerous other businesses, government agencies and organizations. This is all as a result of airport traffic and the catalytic impact of aviation.

- The airport cost structure is characterized by predominantly high fixed costs in the operation and maintenance of major infrastructure components, such as runways and terminal buildings. Even with cost-containment measures and reductions in the operating costs during the current crisis, the industry is experiencing a significant net loss projected to reach as much as US$ 22 billion in 2020. Airports are not in a position to take on additional costs associated with public health measures.

- Despite short-term actions to support businesses across the economy, airport service providers are in dire straits as they have significant fixed costs and need to continue to service their debt. Many airport operators are moving towards a breach of their debt covenants which are, in most cases, based on single-year EBITDA. As a result of the current pandemic, and even based on assumed debt levels that have remained constant into the 2020 pandemic, the projected revenue shortfall would mean that debt-to-EBIDTA ratios would reach 10:1—a financially unsustainable figure for any industry.

- The traditional models of economic oversight of airport charges have been in place for 40 years, while the nature of the airport industry has drastically changed. These models are no longer fit for purpose in many cases and cannot accommodate the radical shifts faced by the airport industry.

POLICY RECOMMENDATIONS

ENSURING PUBLIC HEALTH AND NATIONAL SECURITY

- The World Health Organization's (WHO) International Health Regulations require governments to pay the costs of mandatory health measures. Costs related to public health measures aimed at mitigating the spread of communicable diseases should be borne by national governments. Airport operators and airlines should be included in national discussions to assess the practicalities of implementing the proposed solutions aimed at harmonization across jurisdictions.

PURSUING MEASURES TO STIMULATE AIR TRANSPORT DEMAND

- Alleviate travel restrictions — Because of aviation's direct, indirect, induced and catalytic impact on tourism and employment, governments are urged to alleviate travel restrictions as soon as recommended by national and international health authorities. Air transport is an indispensable factor of normal socioeconomic life, with far-reaching social benefits, including education, medical functions and much more.
- Remove taxes on air transport — The return of passengers should be incentivized and stimulated via the removal of taxes on air transport. Governments are advised to conduct a proper cost-benefit analysis (CBA) in order to decide whether to continue levying passenger-based taxes or to generate higher national income from the additional economic activity arising from aviation.
- Boosting consumer confidence —Ensuring a healthy passenger experience that boosts consumer confidence and minimizes the risk of disease transmission is fundamental to the recovery of air transport. However, increased sanitization costs with a rapid push for technology adoption and contactless environments also translate into higher airport infrastructure costs. Regulators are urged to recognize the implications of COVID-19 on airports' cost base and, consequently, on airport charges.

SUPPORTING THE FINANCIAL VIABILITY OF THE INDUSTRY

- Supporting jobs and incomes — The aviation industry is hugely important to the social and economic welfare of millions of persons across the planet. Governments are urged to provide targeted fiscal stimuli to support the drop in income. Direct financial support should benefit the entire aviation ecosystem—airports, airlines and their commercial partners—to ensure that the multiplier effect is felt across economies.
- Ensuring liquidity in the aviation ecosystem — Governments are urged to help airports mitigate defaults on outstanding debt and potential losses to creditors due to the lockdown. While airport operators are in discussions with their lenders regarding credit conditions, governments are advised to provide short-term loans or one-time cash injections to minimize default on debt and credit losses.
- Concession fee waivers and extensions to concession contracts — Airport rents and concession fees applicable to airport operators should be waived in the form of a one-time measure for a defined period of time, without the requirement for airports to pay back the waived amounts later. Similarly, extending the duration of the existing concession contracts for private airport operators to ensure that the remaining time is commensurate with the airports' ability to recover the costs of capital investments represents another important relief measure.
- Relaxing restrictions on commerce — Regulators should pursue temporary relaxation of limits and allowances for selected duty-free products, so as to stimulate sales and, consequently, help airports generate revenues from their concessionaires. Duty-free shopping upon arrival should also be enabled where not available together with the appropriate tax legislation and reform. It represents a cost-neutral measure solution for governments that creates a substantial new and environmentally sustainable revenue stream for airport operators and their retail partners.
- Rising costs for users of infrastructure — Financing costs continue to rise in the airport industry due to exogenous shock brought on by the pandemic. Regulators are invited to consider that the rise in the cost of capital will impact users and end-users of infrastructure.
- Market-based solutions to benefit the traveling public — Governments are urged to reconsider their models of economic regulation and move towards fostering pricing strategies and commercial agreements which best serve the needs of the travelling public. The objective of airport economic oversight should be centered around supporting the recovery of air transport. Interventions should be only limited to situations where an airport is found to possess significant market power and has the ability to use that power.


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1. THE DEMAND SIDE OF THE EQUATION

According to the Air Transport Action Group (ATAG), aviation's direct, indirect, induced and tourism catalytic employment effect is in the realm of 87.7 million jobs. This is comparable to the populations of Germany or Turkey.

For decades, aviation has remained a major catalyst in supporting growth in other industries such as tourism. In fact, as much as 58% of international tourism is supported by air travel as the leading mode of transport. As of 2019, aviation's global economic impact is in the realm of US$ 3.5 trillion or 4.1% of global GDP.

The industry is hugely important to the social and economic welfare of millions of people across the planet. According to the United Nations World Tourism Organization (UNWTO), tourism accounts for 10% of global GDP with one-in-ten jobs linked to tourism. Similarly, air cargo is a major contributor to global trade and has been especially important in the current pandemic. While air cargo comprises less than 1% of shipped volumes traded globally as compared to other modes of transport, it represents as much as 35% of value.

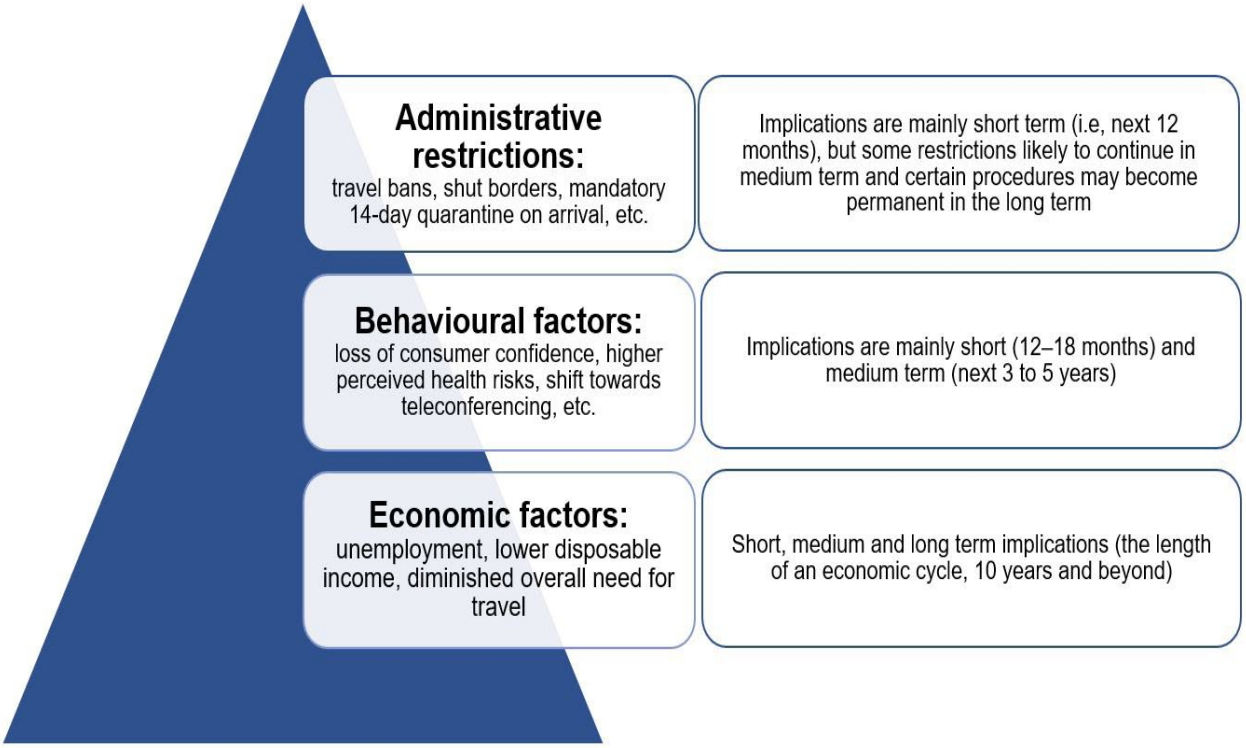
The air transport industry felt a triple shock in that administrative travel restrictions were superimposed on a steep global economic downturn and exacerbated by significant behavioral shifts. See Figure 1.

While the administrative restrictions such as travel bans, shut borders or mandatory 14-day quarantine on arrival are most likely to continue in the short term, some of these restrictions and procedures may continue in the medium term with longevity that could have significant negative impacts on tourism and broader socio-economic activity.

As per the latest estimates, the airport industry is expected to lose about half of its passenger traffic volume and over a half of its revenues in 2020. As revealed in Chart 1, none of the previous crises in recent history had a comparable impact on traffic, neither in absolute nor in relative terms. The recovery of the industry, projected by a panel of experts, is indispensable to the recovery of the global economy at large and will depend on the deployment of proper policy tools and coordinated action by national governments and international institutions.

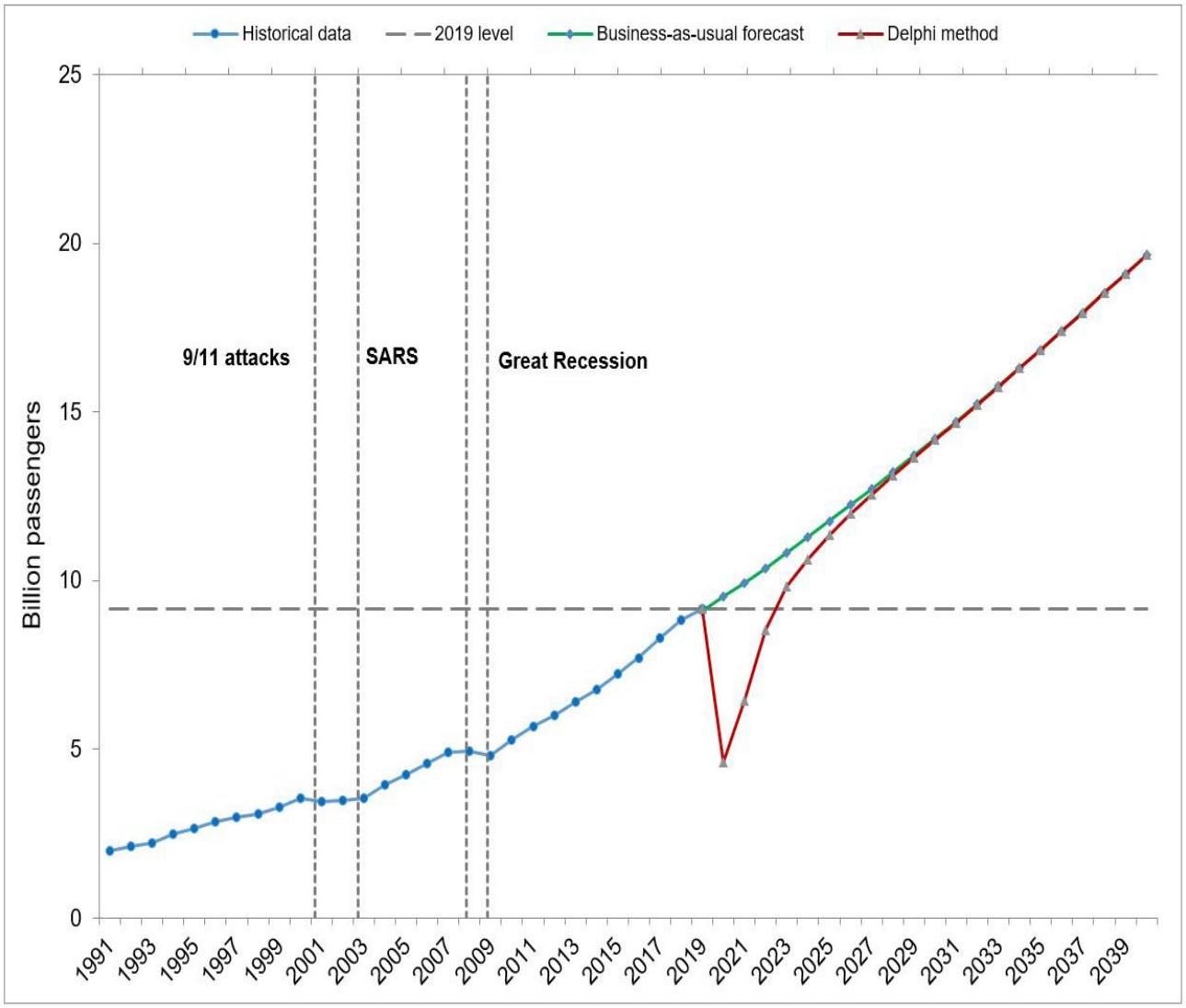
From an airport perspective and as of summer 2020, passenger traffic is expected to lose at least 50% in 2020. The sharpest decline was experienced in Q2 where traffic declined by 90%. It will take until 2023 or later to reach 2019 levels. In a similar way, the International Air Transport Association (IATA) indicates in its updated global passenger forecast that air travel will not return to its pre-COVID levels until the year 2024. In general, the emerging markets of the Asia-Pacific region are assumed to have a faster pace of recovery. Nevertheless, on a global scale, total passenger traffic is expected to recover to the previously projected trends (green line) within a decade. Nevertheless, all projections are tentative due to the uncertain evolution of the pandemic, the global economy and, consequently, the air transport demand.

FIGURE 1: KEY FACTORS IMPACTING AIR TRANSPORT DEMAND DURING AND POST-COVID-19



Source: ACI World

CHART 1: THE HISTORICAL PERSPECTIVE OF AIRPORT PASSENGER TRAFFIC (1991–2040)



Source: ACI World

In contrast to the administrative restrictions and behavioral shifts, which are likely to remain in the short and medium term, the macroeconomic factors are likely to have long run ramifications, creating a downward pressure on air transport demand, as the economic factors of income and price have always been considered the two major determinants of air transport demand.

1.1 Administrative factors: Travel restrictions

Even as the number of cases increases, the WHO continues to advise against the application of travel restrictions. Evidence shows that "restricting the movement of people and goods during public health emergencies is ineffective in most situations", and "may only be justified at the beginning of an outbreak". In a recent July 2020 statement, the WHO emergencies director Michael Ryan argued that "continuing to keep international borders sealed is not necessarily a sustainable strategy for the world's economy, for the world's poor or for anybody else". Most public health experts instead recommend traditional and community-based measures such as improved hand hygiene and social distancing including working from home if possible. Based on these recommendations, the aviation industry has taken wide-reaching measures to protect travellers.

While it is understandable that passengers are concerned with being strapped on an airplane, it is important to understand that cabin air is completely refreshed approximately twenty times per hour on an average civil aircraft. Air is also circulated through hospital-grade HEPA (high efficiency particulate air) filters, which remove 99.97% of bacteria, as well as the airborne particles that viruses use for transport. Considering the unfolding COVID-19 crisis, in addition to the routine cabin cleaning procedures, airlines are taking additional measures to deeply sanitize areas passengers are repeatedly in contact with. Airlines across the globe implemented new cleanliness standards to bear their fair share of responsibility in containing the global pandemic.

Policy recommendation: Because of aviation's direct, indirect, induced and catalytic impact on tourism and employment, governments are urged to alleviate travel restrictions as soon as recommended by national and international national health authorities. Air transport is an indispensable factor for normal socioeconomic life, with far-reaching social benefits, including education, medical functions and much more.

1.2 Behavioural factors: Loss of consumer confidence, fear to fly and digitalization of life

At micro level, the pandemic has severely impaired confidence of consumers to travel by air and led to a radical disruption of normal consumer patterns, therefore inducing a direct and strong downward pressure on the propensity to fly. The global economic downturn also resulted in consumers turning into an austerity mode, cutting on all non-essential spending including both domestic and international air travel.

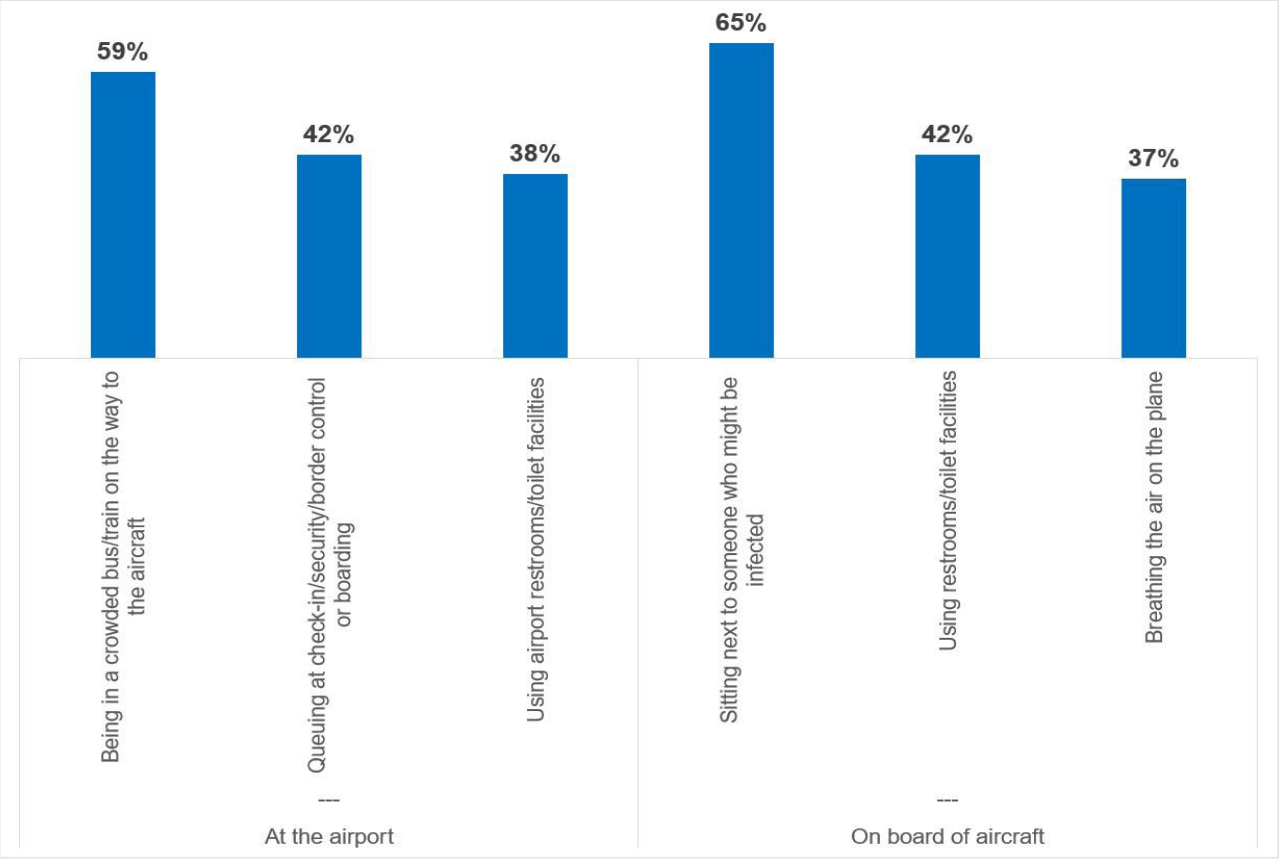
As revealed by several consumer sentiment surveys, a significant proportion of the population is less likely or hesitant to fly in the short term due to perceived health risks associated with being in crowded areas at airports and constricted on board aircraft for several hours.

The air traveler survey conducted by Rockland Dutton on behalf of IATA during the first week of June 2020 showed that willingness to travel is being tempered by concerns over the risks of catching COVID-19 during air travel. Some 58% of those surveyed said that they have avoided air travel, with 33% suggesting that they will avoid travel in the future as a continued measure to reduce the risk of catching COVID-19. Such findings testify to the impaired consumer confidence having a negative impact on air transport demand, particularly in the short term, i.e., in the next 12 months.

Additionally, travelers identified their top three concerns at the airport and on-board aircraft, as showed in Figure 2. As for the airport aspect of the journey, a significant number of respondents mentioned being in a crowded bus or train on the way to the aircraft (59%), followed by queuing at check-in/security/ border control or boarding (42%) and using airport restrooms/toilet facilities (38%) as travel concerns. The last point reverberates in the responses pertaining to being on board an aircraft, as mentioned by 42% of the respondents. However, it is superseded by a bigger concern of sitting next to someone who might be infected (65%), followed by the concern of breathing the air on the plane (37%).

These findings are also consistent with the ACI ASQ Research Report on the passenger experience during a health crisis, stating that the two top passenger priorities in time of a health crisis are (1) cleanliness of airport terminal and washrooms, and (2) feeling of being safe and secure.

FIGURE 2: CONCERNS FOR TRAVEL DURING COVID-19 (JUNE 2020)



Source: Adapted from IATA; Rockland Dutton Research and Consulting

The COVID-19 health crisis has introduced new practices in our daily life, such as physical distancing and mass telecommuting, raised hygiene awareness, and increased reliance on videoconferencing, to name a few.

According to an ICF customer survey finding, nine out of 10 respondents expect the widespread adoption of video-conferencing solutions for work and education, which would undoubtedly impact the demand for air travel. The implications for business travel, much of which is driven by intra-company meetings, could lead to reduced demand. The alternative arrangements such as video conferencing, however, are not a solution for many forms of leisure travel. Beyond the business and leisure dimensions, it is important to consider the social imperative: air travel plays a role in ensuring connectivity between different parts of the globalized world, it facilitates education, provides for medical evacuation for the remote communities and much more. Safe, reliable and efficient access to air transport is essential, and airports are an integral part of it.

Sanitation and digitization

Airports took comprehensive measures to minimize risk from COVID-19 virus spread and also embarked upon enhanced cleaning initiatives. Many airports, together with their partners, developed formal COVID 19 remediation plans, specifying all potential touchpoints throughout public spaces and establishing disinfecting procedures, with an enhanced focus on toilets, seating, handrails, food courts, security screening and boarding areas, and many other areas of activities where potential risks are identified. Some airports have even introduced intelligent sterilization robots (IRS)—the new generation machines that move autonomously and sterilize up to 99.99% of bacteria and virus in the

air and on object surfaces.

Consistent with WHO recommendations for the workplace, airport operators adopted the key recommendations to prevent the spread of COVID-19. In order to facilitate one of the most effective measures—hand sanitizing, airports have installed numerous sanitizing dispensers throughout terminal buildings and other public areas.

More detailed guidance of the measures and procedures can be found in designated documents produced by ACI Regional Offices, such as ACI World Aviation Operations during COVID-19 – Business Restart and Recovery, ACI Africa Guidance for African Airports Restart, ACI North America Ready for Every Journey, and ACI EUROPE Guidelines for a Healthy Passenger Experience at Airports.

Cost implications

Rebuilding confidence does come at a price. Governments, users of infrastructure and other stakeholders must be cognizant of the fact that these investments in technologies, coupled with increased levels of sanitization and maintenance, have implications for the airport cost base. Both capital expenditures with respect to technologies and airport operating expenditures related to sanitization are expected to rise and potentially represent a structural change to the airport industry that is comparable to the escalation in security costs after the September 11 attacks (9/11) across the industry.

Any additional restrictions, particularly with regard to airport capacity utilization in relation to social distancing, such as space required to accommodate a limited number of passengers in the terminal area, for example, would be unbearable for airports and render the cost of recovery unrealistic.

Entry and exit health screening at points of entry implying temperature measurement and use of thermal cameras is another area that potentially represents a significant cost.

In a context where the shortfall in airport industry revenues will persist for several years as compared to 2019 levels, any rapid push to transfer the burden of this structural change on airports means that the cost of travel to passengers and other users of infrastructure will inevitably rise over the medium term. With any rise in the cost of travel, the positive benefits and multiplier effect that air transport has on job creation, the value-added contribution to the economy, tourism and commerce is compromised.

Policy recommendation: The airport industry is undergoing a structural change that will affect its cost base. Ensuring a healthy passenger experience that boosts consumer confidence and minimizes the risk of disease transmission are fundamental to the recovery of air transport. However, increased sanitization costs with a rapid push for technology adoption and contactless environments also translates into higher costs to users of air transport and infrastructure. Regulators are urged to recognize the implication of COVID-19 on airports' cost base and airport charges as a consequence.

1.3 Economic factors: Falling income and rising unemployment

Air transport demand is driven by **aggregate economic activity**: growth in GDP, trade, urbanization and growth in emerging economies. In addition to the economic activity factors, air transport demand is propped up by market considerations such as increased connectivity due to more seats, higher frequencies and additional destinations.

Even though demand for air travel is affected by several factors including service quality and reliability, passenger demographics, frequency and timing of flights, price and availability of alternative modes of transport, the two principal economic variables remain the key determinants: **price and income**. See Figure 3.

FIGURE 3: UNDERSTANDING AIR TRANSPORT DEMAND

DERIVED DEMAND

- The demand for air transport is a derived demand. Users of air transport are primarily consuming the service not because of its direct benefits, but because they wish to access other services. People travel in order to satisfy a need (work, education, recreation, etc.) and goods are being transported part of the overall economic activity.

INCOME FACTORS $$$

- Income is the first main determinant of air transport demand. The relationship between income and air transport demand assessed via income elasticity, is generally greater than 1, but differing for different types of travellers and different parts of the world. This means that for a unit increase in income, there is more than a proportional increase in air transport demand. Overall, air travel is considered income-elastic.

PRICE FACTORS $$$

- Price of air travel is the second main determinant of air transport demand. The relationship between price and air transport demand assessed via (own-) price elasticity. The inverse relationship implies that lower fares and freight rates stimulates traffic.

MARKET FACTORS AND QUALITY CHARACTERISTICS

- In addition to the economic variables of income and price, a myriad of market factors and characteristics impact air transport demand. These include ethnic, linguistic, economic and cultural ties between areas, quality and availability of air services defined by the number of destinations served, schedules and frequencies, etc.

COMPETITION AND ALTERNATIVE MODES OF TRANSPORTATION

- Air transport may compete with other modes of transport. Geographical proximity and other geographical peculiarities are often key determinants of competition. Consequently, price and quality of competing transportation services may affect the demand for air transportation.

Source: ACI World

Income factors—Fiscal stimulus and direct financial relief

The most recent World Economics Outlook produced by the IMF projects global growth in 2020 to fall to -4.9% year-over-year. This is a downgrade of 7.8 percentage points from January 2020, a major revision over a very short period. This makes the Great Lockdown the worst recession since the Great Depression, and far worse than the Great Recession of 2008–2009. The IMF data demonstrates that the COVID-19 pandemic will severely impact growth across all regions and in both advanced and emerging economies. It is estimated that in 2020, 170 countries will see declines in per-capita incomes, in a drastic contrast with what had been projected only a few months ago, when 160 economies were expected to register an increase in incomes on a per capita basis. Consequently, the air transport industry will be adversely affected in all parts of the world.

In light of the COVID-triggered economic meltdown, governments all over the world have taken unprecedented action to stabilize societies and economies by implementing a combination of fiscal and monetary stimuli measures. Both measures are targeted towards keeping the global economy afloat by stimulating demand, providing income and liquidity cushions to various sectors of the economy and keeping unemployment rates at socially acceptable levels. Nevertheless, such measures can only partially offset the declines in income, hence, understanding the potential decline in air transport demand due to the falling income becomes a necessary exercise.

Income elasticity refers to a measure of how demand for a good or service will change when the income of the economic agent changes. As the COVID-19 outbreak continues to unfold, a global economic crisis with long-standing economic ramifications becomes inevitable.

Even though air transport demand reacts differently to changes in income depending on the region, on a global level, the elasticity coefficient is almost always greater than 1. Statistical evidence across an array of industry studies suggests that a 1% increase (decrease) in global GDP results in a more than proportional 1% increase (decrease) in the demand for passenger air travel.

In the recent decade, air transport demand has been growing at roughly double the rate of the global GDP. However, high income elasticity of demand for air transport is a double-edged sword: When incomes are growing, the sector is benefitting from it at an accelerated pace, when incomes are falling, as is currently the case, demand for air transport shrinks at even a faster pace than the decline in income, as consumers reorient consumption towards necessity goods (income elasticity between 0 and 1).

Based on the International Labour Organization (ILO) monitor, as of 29 April 2020, global working hours in the second quarter are expected to be 10.5% lower than in the last pre-crisis quarter. This is equivalent to 305 million full-time jobs, which represents a significant deterioration of ILO's previous estimate of 195 million for the second quarter. This implies that many of these workers will face a loss of income and deeper poverty. It is also important to mentioned that the COVID-19 economic downturn has a bigger impact on women, as 41% of women are employed in sectors at high risk of job losses and decline in working hours, compared to 35% of men.

Such distressing macroeconomic trend represents an additional hit to the air transport sector. Assuming further declines in global employment, these can translate into double-digit rates of decline in air transport demand. Aviation jobs are, on average, 4.3 times more productive than other jobs. By opening markets and enabling knowledge transfer and other catalytic effects, aviation also makes jobs in other sectors more productive. Globally, each aviation job generates close to US$ 117 thousand in GVA.

The typical airport hub has as many as 40 thousand employees working on site. This number includes employees from the airport operator; however, many other jobs are generated from numerous other businesses, government agencies and organizations. This is all a result of airport traffic and the catalytic impact of aviation.

It is the economic significance of air transport that makes government support so crucial. Before the pandemic, the airport industry reported strong financial health, and its economic foundations were solid. Amidst the global health crisis and transportation crisis as a result, airports require neither bailouts nor compensations, but rather a transition support to cope with the unforecastable event that is threatening their existence. Once back on the recovery path and after the adverse impact of the pandemic fades away, airports are expected to again be economically viable. Government support should not be confined exclusively to airlines but consider the wider range of stakeholders, including airports and other stakeholders in the aviation ecosystem.

Policy recommendation: The aviation industry is hugely important to the social and economic welfare of millions of people across the planet. Governments are urged to provide targeted fiscal stimulus to support the drop in income. Direct financial support should benefit the entire aviation ecosystem—airports, airlines and their commercial partners—to ensure that the multiplier effect is felt across economies.

1.4 Price factors—alleviating passenger-based taxes

While efforts to prop up income and the propensity to travel remain important ingredients in the recovery, price-related factors must also be considered in boosting air transport demand. There are two types of levies that are common to air transport—charges and taxes. While charges are levied against the costs of infrastructure and services provided to users and are used to offset operating and capital expenses, taxes are assessed on air transport and contribute to state coffers and, in most instances, are diverted outside of the industry.

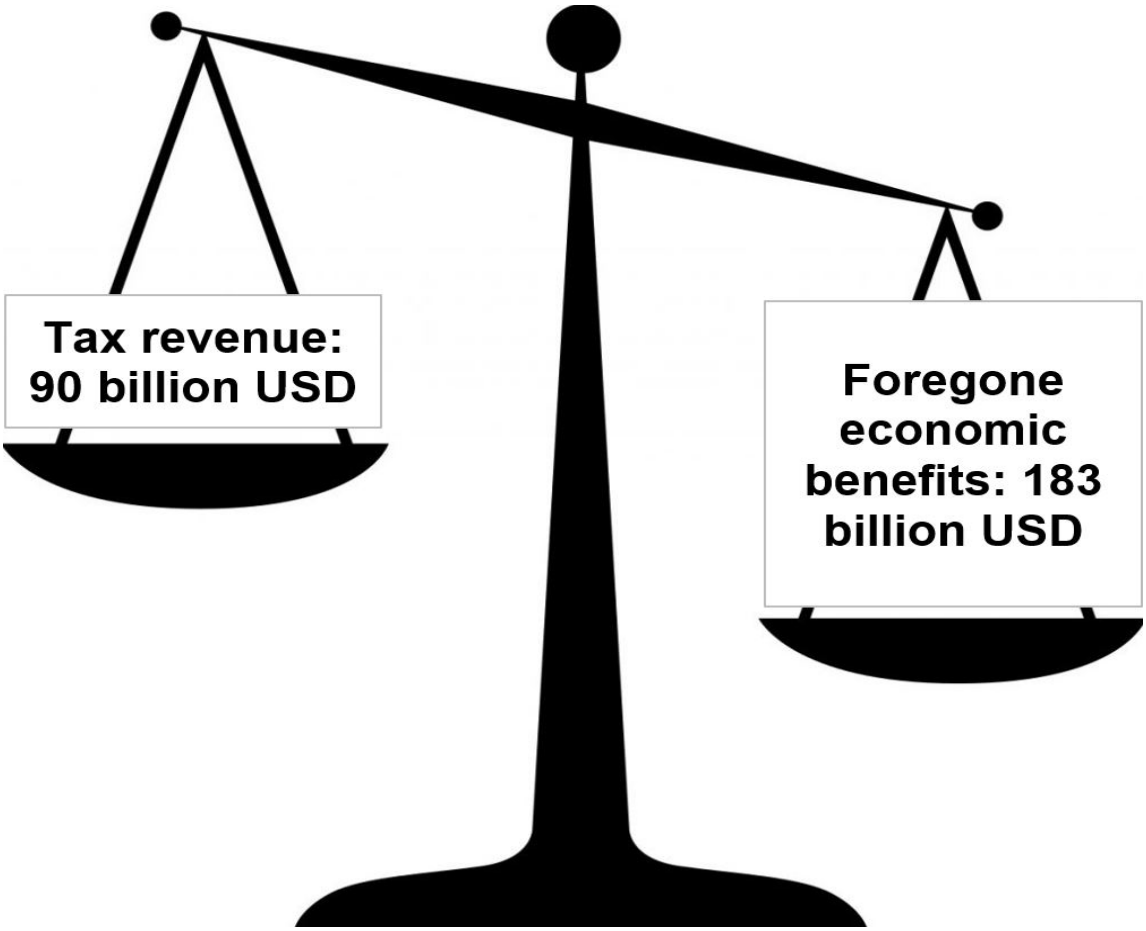
While charges are instrumental in recovering airport costs, the alleviation of passenger-based taxes represents an important policy lever aimed at stimulating air travel to improve the recovery trajectory of tourism, commerce and economies.

International aviation is heavily taxed. While there are legitimate aviation charges levied to recover the costs of providing infrastructure and services, taxes levied by governments but used for general purposes or earmarked for non-aviation use have an adverse impact, not only on aviation but also on economies across the globe. The latest findings suggest that global passenger-based taxation of aviation, excluding fuel and income taxes, is equal to US$ 90 billion. As such, the excessive level of taxation represents a burden for two specific reasons.

First, the taxation burden on international aviation suppresses roughly 760 million passenger trips per year, based on traffic volumes as of 2019. This undermines key aviation-dependent sectors such as tourism and international education, and adversely impacts major financial centres and where other human capital-intensive services are located.

The tax burden means that 2.2 million direct aviation and aviation-related jobs are foregone and lost economic benefits of US$ 93 billion in direct GDP. The total macroeconomic impact, including indirect, induced and catalytic impacts, increases the foregone benefits to 5.2 million jobs and US$ 183 billion in global GDP. See Figure 4.

FIGURE 4: PASSENGER-BASED TAX REVENUE VERSUS FOREGONE ECONOMIC BENEFITS (2019)



Source: ACI World; InterVISTAS

Second, many of the current taxes are economically inefficient. That is to say, the same tax revenue could be raised by different means without suppressing air travel and the economic benefits arising from it.

Only justifiable, equitable and non-discriminatory taxes on airports, passengers and air transport are acceptable, as they otherwise engender a negative economic impact hindering the sustainable development of airports and of air transport. To the extent that a tax on international aviation is used for contributions to the general treasury rather than redirected to aviation, such a tax must be assessed on all sectors of the economy and not merely aviation. Furthermore, such a tax requires a cost-benefit analysis that demonstrates that there are no other means to collect the tax that would have a lesser impact on the economic benefits of aviation to the general economy.

Policy recommendation: The return of passengers should be incentivized and stimulated via the removal of taxes on air transport. Governments are advised to conduct a proper cost-benefit analysis (CBA) on whether to continue levying passenger-based taxes or to generate higher national income from the additional economic activity arising from aviation.

1.5 Facilitating commerce and consumer choice

Airports are two-sided platforms, as they generate revenue from two distinct channels—aeronautical and non-aeronautical. While aeronautical revenues arise from the provision of infrastructure and services essential for the operation of air transport, and typically include passenger and landing charges, non-aeronautical revenues are associated with ancillary commercial activities pursued by airports, such as retail, food and beverage and car parking. The latest ACI figures suggest that as much as 44% of airport revenues are generated from non-aviation sources on a global level—the combination of operating non-aeronautical (40%) and non-operating (4%) revenue streams.

As traffic collapsed, many commercial outlets at airports faced a predicament whereby continuing their activity was not economically viable—it takes a critical mass of free-of-anxiety travelers of a certain profile to buy products and services. Many retailers and other commercial operators had to shut down their shops, as revenue generation was not commensurate with the level of costs incurred. Consequently, airports' cash flow on the commercial side of the business was impaired, in some instances, even beyond being proportional to the decline in traffic volumes.

Even though all non-aeronautical activities suffered revenue declines incompatible with normal business performance and continuity, the retail segment, and duty-free in particular, represent a window of opportunity where sales could be stimulated to help airports and their retail partners to generate much needed revenues to support them in the recovery.

Airport duty-free shopping on arrival is now an established practice on most continents across the globe and is especially prevalent in the Asia-Pacific, Latin America-Caribbean and the Middle East. Over 45 countries already have instituted the concept of on-arrival duty free including some of the largest aviation markets in the world—Australia, Brazil, India, Indonesia, Russian Federation, Thailand, Turkey and the United Arab Emirates. It is a very popular service with travellers who prefer to delay shopping until they arrive, especially given strict hand luggage policies and environmental concerns on carrying weight onboard aircraft.

On the other hand, the European Union and North America have been relatively slow to embrace the concept of duty-free shops on arrival.

Current legislation restricts duty-free sales only to passengers 'leaving' these markets. Duty-free shopping on arrival will require legislative elements to be amended to bring airports in these regions in line with global industry practice. For instance, in the context of the EU, minor changes to EU legislation should be considered to facilitate this form of commerce—namely, the Excise Duty and VAT Directives.

Purchases at arrivals duty-free have no impact on domestic sales of products—there is no impact on government tax revenue, and no increase in the number of products entering the market as travellers' duty free allowances remain the same for both departing and on-arrival duty-free at airports in a given jurisdiction.

Policy recommendation: Ministers for Finance and other regulators should pursue temporary relaxation of limits and allowances for selected duty-free products so as to stimulate sales and, consequently, help airports generate revenues from their concessionaires. Duty-free shopping on arrival should also be enabled with appropriate tax legislation and reform wherever it is not currently the case. It represents a cost-neutral measure solution for governments to create a substantial new revenue stream for airport operators and their retail partners.


Parking 60
Bus Coaches
Tram Tramway
Bahn Train
Check-in 3
Service Center
Mietwagen Car Rental
Check-in 2
Abflug alle Gates
Departure all gates
Zuschauerterrasse
Rundfahrten
Toilets
Bahn
Train
Raucherzone
Smoking Lounge
Check-in 1
Ankunft 1|2
Arrival 1|2
Parking 1|2|6
Polizei
Police
KFC

2. THE SUPPLY SIDE OF THE EQUATION

2.1 The cost structure revisited: The great shortfall

Revenue shortfall

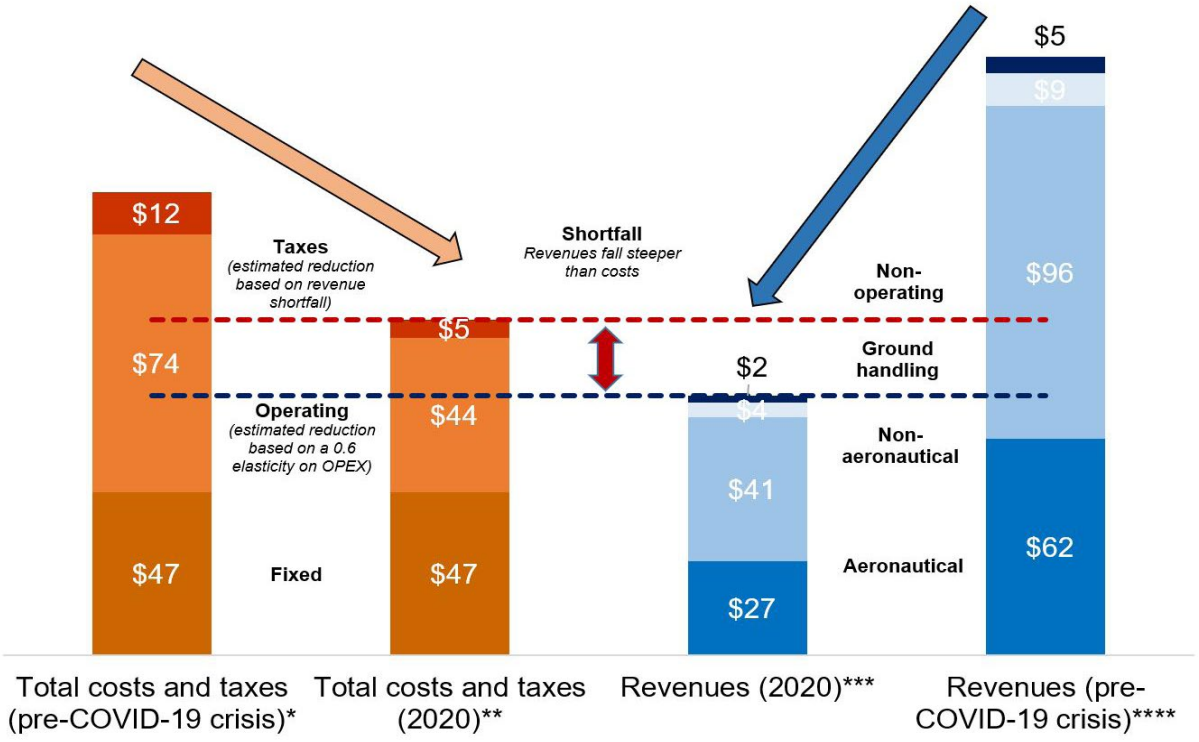
Like many asset-intensive businesses, the airport cost structure is characterized by predominantly high fixed costs in the operation and maintenance of major infrastructure components, such as runways and terminal buildings. Airport operators have a strong incentive to spread out these costs by expanding traffic to achieve economies of scale, scope and density. Independently of capacity and regulatory constraints, this also permits revenues to be generated at given traffic levels at a point where either a return on investment is achieved or, at the very least, the costs of operating an airport are covered.

However, the COVID-19 pandemic and resultant travel bans has placed the airport business in a precarious state. With supply side restrictions on travel and the collapse in air transport demand, airport operators do not have sufficient traffic neither to drive down per traffic unit costs and achieve economies of scale nor to generate significant aeronautical revenue or commercial revenues to cover costs and to service debt levels.

Before 2020 and the global pandemic, overall industry costs have been estimated to be in the realm of US$ 130 billion (ACI Airport Economics Report 2020) with slight variations from year to year after adjusting for inflation. The huge shortfall in revenues has meant that airports are operating at a significant loss. Urgent cost containment measures have been implemented to respond to the financial pressure caused by the COVID-19 pandemic and have included reductions in all operating expense categories.

Chart 2 shows estimated global industry revenues and costs in 2020 under the ongoing crisis. Airport fixed costs are an important component of the cost base. Even with cost containment measures and reductions in operating costs, the industry is experiencing a significant net loss, projected to reach as much as US$ 22 billion. Alternatively, one can see that the decline in revenues is steeper than the decline in costs, resulting in a sizable financial shortfall.

CHART 2: ESTIMATED GLOBAL INDUSTRY REVENUES AND COSTS UNDER THE COVID-19 PANDEMIC (US$ BILLION, 2020)



*Estimated airport industry costs in 2018 (Airport Economics Survey 2019)
**Projected airport industry costs in 2020; The reduction in operating expenditures (OPEX) is assumed to have a 0.6 elasticity—for a 1% reduction in traffic, OPEX is reduced by 0.6%; reduction in taxes are estimated based on a proportional decline in revenues
***Projected airport industry revenues in 2020
****Airport industry revenues estimated pre-COVID-19

Source: ACI 2020 Airport Key Performance Indicators

Debt, liquidity, and solvency

With revenues shoring up quicker than what cost containment can achieve and with a large cost component remaining fixed, the industry is witnessing a major shift in liquidity and solvency measures. The debt-to-EBITDA ratio is a direct illustration of airports' impaired liquidity position and jeopardized financial health.

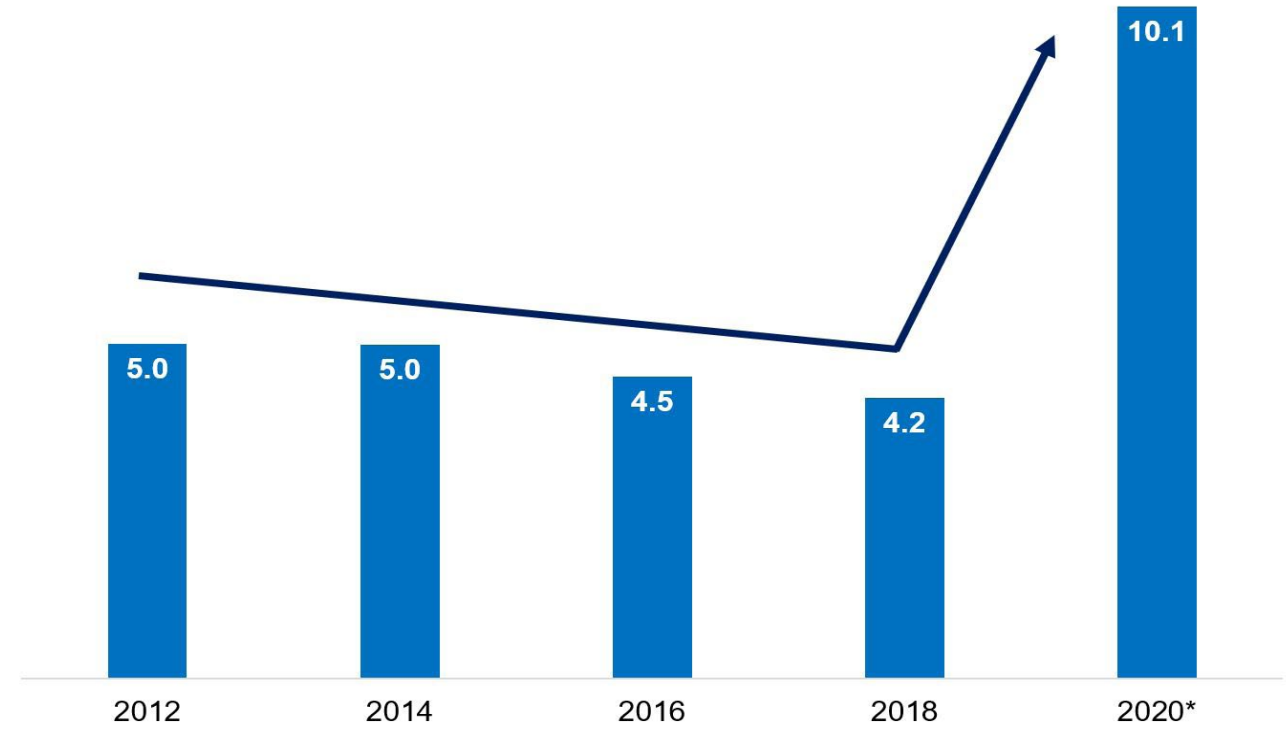
Like other infrastructure-intensive industries, airports are usually highly leveraged, even during business-as-usual times, which is reflected in their debt-to-income ratios. Independent from an airport's ownership model and regulatory context, its outstanding debt in relation to its overall cash flow is a valuable indicator of financial health. Heavily indebted airports are often in a precarious situation, leaving them with little scope for further investments or face higher financing costs.

An airport's cash flow or earnings before interest, taxes, depreciation and amortization (EBITDA) serves as a measure for investors and airport managers to assess the airport's ability to deal with its debt obligations. Regardless of the instruments chosen to finance airport operations, a higher debt-to-EBITDA ratio implies that an airport or operator is heavily leveraged and signals a warning that the airport might face difficulties in paying off its debts.

Acceptable debt levels vary from one jurisdiction to the next due to differing ownership, financing structures and legal considerations. Nevertheless, a rule of thumb for the acceptable upper limit for corporations that have high capital costs, such as public utilities, is a debt-to-EBITDA ratio in the realm of 5:1. If this rule of thumb is applied to airports, anything significantly above this range would represent an element of risk, as the airport operator is less likely to relinquish the debt burden and take on the additional debt required to grow the business.

On average, based on comprehensive data from ACI Airport Economics Survey, global debt to EBIDTA levels were reported at 4.2:1 in 2018. Debt levels have consistently oscillated in the realm of 5:1 for many years, though a declining trend has been observed in recent years. As a result of the current pandemic, even based on assumed debt levels that have remained constant into the 2020 pandemic, the projected revenue shortfall would mean that debt-to-EBIDTA ratios would reach 10:1—a financially unsustainable figure for any industry or economic agent. Because many private airport operators face higher financing costs to begin with, the debt-to-EBITDA would even be potentially higher than this. Chart 3 provides a summary of global debt-to-EBITDA ratios over time demonstrating the past stability.

CHART 3 EVOLUTION OF AIRPORT INDUSTRY DEBT-TO-EBITDA RATIO (2012–2020)



*Projected for 2020 based on the revenue shortfall keeping debt levels constant as compared to 2018
Source: ACI 2020 Airport Key Performance Indicators

Credit impairment represents an immediate risk with far-reaching consequences on airports' cost structure and pricing, acting as a self-propelling mechanism, whereby lower credit ratings increase borrowing costs, which are passed on to airport users through charges and hence further de-stimulates demand and revenue generation. In such context, revisiting economic regulation becomes more important than ever.

An additional consideration should be given to airports with private sector participation, particularly to those airports under concession agreements. As most concession contracts stipulate the investment obligations of the private operator and assume capital expenditure, governments are urged to engage in a dialogue with the concession-holders and find a reasonable agreement with regard to the level of investment. The present situation may suggest that for the next three to five years, many airports would need to scale back their capacity, rather than invest in new facilities.

Waiving concession fees for a limited period represents one of several tangible solutions that will help airports to continue their operations and maintain competitive pricing and thus facilitate traffic recovery. Finally, governments may consider extending duration of the existing concession contracts to ensure that the remaining time is commensurate with airports' ability to recover the costs of investment.

Policy recommendation: Governments are urged to help airports mitigate defaults on outstanding debt and potential losses to creditors due to the lockdown. While airport operators are in discussions with their lenders about credit conditions, governments are advised to provide short term loans or one-time cash injections to minimize default on debt and credit losses. Airport rents and concession fees applicable to airport operators should be waived in the form of a one time measure for a defined period of time, without the requirement for airports to pay back the waived amounts later. Similarly, extending the duration of the existing concession contracts for private airport operators to ensure that the remaining time is commensurate with airports' ability to recover the costs of capital investments represents another important alleviation measure.

2.2 Rising cost of capital and negative returns

To add a complication, not every aspect pertaining to the airport business will recover at the same pace and to the same extent. Some airports are economically regulated. The prices for the airport chares are often set by the airport, or a regulator, using an ex-ante weighted average cost of capital (WACC) to determine a fair return on capital.

The regulated WACC is determined based on a number of variables, including asset specific risk. The unprecedented crisis that is affecting the solvency and debt obligations of airports specifically is likely to increase the WACC required by airports' owners and investors. This ripple effect will inevitably push up the cost base for airport charges paid by passengers and aircraft operators.

Previous studies have pointed to the global airport industry WACC being in the realm of 6% to 8% with some stability over the last decade. It is important to note that WACC varies according to jurisdiction, financing structure, market conditions, traffic risk and political risk depending on where airport operators and investors place their capital investments, to name a few dimensions.

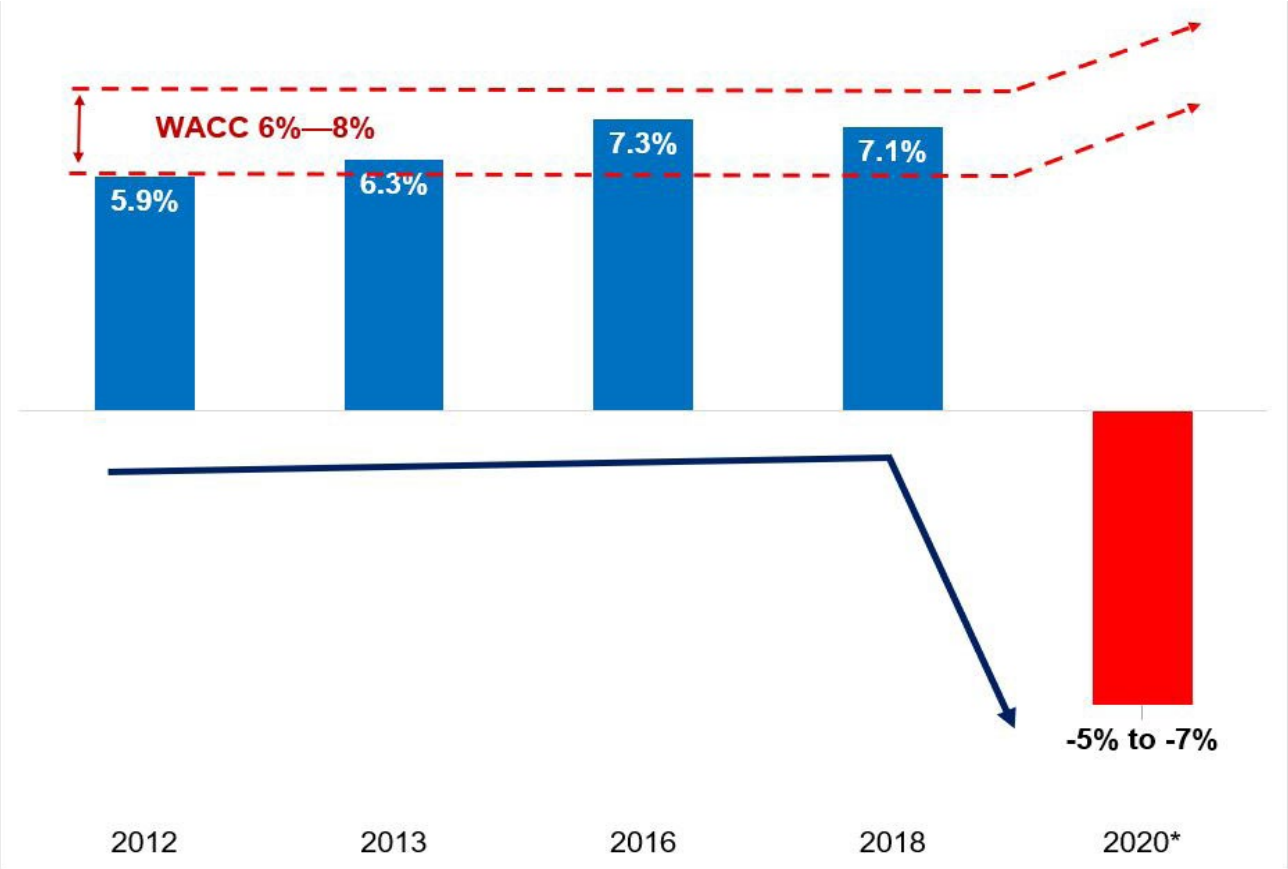
The equity portion of the WACC is typically based on the capital asset pricing model (CAPM) which prices the underlying risk associated with an asset. The beta parameter is derived from the relative risk of the operator or the relative volatility of an underlying equity asset to the overall market risk. Before the pandemic, many airport operators (or their respective parent companies) which have equity that is publicly listed on stock exchanges have reported a beta parameter that is less than 1. This means that the airport equity asset is less risky than the overall market. The market refers to a composite stock market index such as S&P 500 Index, for instance.

As a result of the pandemic and a heightening of perceived risk by investors, beta values have jumped above 1 for several airport operators. Equity betas that are above 1 is the inverse of the earlier logic. As such, the underlying airport asset is now seen as riskier than a given stock market index.

Chart 4 presents the return on invested capital and the simulated industry revenues. Overall, the industry's return on investment capital (ROIC) showed very little variability over several years, which is a testament to the industry's stability in terms of cashflow. The ROIC remained within the global range of the WACC. This means that airports were just breaking even over this period. The projected outcome for 2020 and beyond clearly paints a different picture altogether. The airport industry will not only experience estimated nominal losses between 5% and 7%, but also real economic losses that will capture the growing gap between returns and the cost of capital.

Policy recommendation: Financing costs continue to rise in the airport industry due to exogenous shock brought on by the pandemic. The higher risk associated with airport assets brought on by the current pandemic implies a higher expected return as captured by the WACC. Regulators are invited to consider that the rise in the cost of capital will impact the users and end users of infrastructure.

CHART 4 AIRPORTS' RETURN ON INVESTED CAPITAL (ROIC) (2012—2020)



* Projected for 2020 based on the revenue shortfall keeping all costs and debt levels constant as compared to 2018

Source: ACI 2020 Airport Key Performance Indicators

2.3 Public health measures and costs

The ongoing global health crisis resulted in a fast rise of frantic, uncoordinated and non-harmonized health-related measures applied in air transport and airports specifically. In most cases, it is a combination of government directives, freshly formalized new industry best practices and voluntary airport-initiated actions.

A patchwork of different frameworks risks confusing travelers, introducing inefficiencies and unnecessary additional compliance costs on airports and airlines. In a similar manner as e-visa clearances, national governments would need to mutually recognize test results and data transmission should be dealt directly between governments and passengers. Thus, existing roles and responsibilities of national governments, airlines, airports and other operational stakeholders should be respected in implementing the response to the COVID-19 outbreak.

From a historical perspective, this situation has many similarities with the aftermath of the terrorist attacks of September 11, 2001 and the subsequent rise in the costs of aviation security.

In a similar way, the ongoing coronavirus pandemic is a general health issue. Therefore, aviation should bear no more and no less responsibility and costs as any other industry or economic entity.

Costs directly related to public health measures aimed at mitigating the spread of communicable diseases should be borne by national governments in tandem with other national security efforts. These measures require full or partial implementation by competent national authorities which include among other areas medical examinations, quarantine, health measures applied to baggage and issuance of health certificates, whenever required. Accordingly, the World Health Organization's International Health Regulations require national governments to pay the costs of mandatory health measures. The goal of the international health regulations is "to prevent, protect against, control, and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks and that avoid unnecessary interference with international traffic and trade."

As outlined in the Safely Restarting Aviation — ACI and IATA Joint Approach, public funding of health measures should be ensured, including but not limited to infrastructure or operational changes needed for their implementation. Similarly, the International Civil Aviation Organization (ICAO), through the ICAO Council Aviation Recovery Task Force (CART), has resolved to partner with its Member States, international and regional organizations, and industry to address these challenges and to provide global guidance for a safe, secure and sustainable restart and recovery of the aviation sector. The CART maintains that, "States should enhance cross-sectoral coordination by establishing a National Air Transport Facilitation Committee or equivalent, and systematically use the Passenger Health Locator Form as a reference. It is States' responsibility to maintain security across all operations." Airlines and airport operators should be included in national discussions to assess the practicalities of implementing the proposed solutions aimed at harmonization across jurisdictions.

Considering almost triple-digit declines in air transport demand in the second quarter of 2020 and a myriad of factors putting effective air transport recovery at risk, additional costs passed on to aviation cannot be absorbed without undermining the economic recovery of the sector. National governments should recognize the coronavirus pandemic as a general health issue and ensure that any additional costs associated with health-related measures and procedures are assumed by governments.

Policy recommendation: The World Health Organization's International Health Regulations require national governments to pay the costs of mandatory health measures. Costs related to public health measures aimed at mitigating the spread of communicable diseases should be borne by national governments. Airport operators and airlines should be included in national discussions to assess the practicalities of implementing the proposed solutions aimed at harmonization across jurisdictions.

2.4 Economic regulation of airports pre-COVID-19

2.4.1 The long-standing ICAO regulatory framework

ICAO's policies on charges (Doc 9082) lay out the framework on which airport charges are set. Airport charges fund the operation of airport aeronautical activities and finance the development of airport facilities and services. The approach to be followed is the so-called "building blocks" model—a set of recommendations that is common in many jurisdictions—whereby airport operators should recover the full cost of providing airport facilities and services to airlines and passengers by charging them the following key components of their overall cost structure:

- the operating costs of running the airport;
- the depreciation of the airport assets; and
- a fair return on the capital employed.

This approach became ICAO's policy in 1974 and has served as a landmark for regulators worldwide ever since. In the simplest sense, airports should recover their costs and generate enough return to incentivize the continuous financing of airport activities and development. ACI has long supported these ICAO provisions by which airport operators should recover the costs of supplying airport facilities, services and capacity to passengers and airlines while ensuring a reasonable return.

While various models of airport economic regulation have been implemented at national level to execute the ICAO approach to economic oversight, two main approaches have been widely used: The first being the cost-plus model, whereby the level of airport charges was 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, whereby the maximum level of airport charges and its evolution were set based on inflation. Both approaches relied 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 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.

Airports as mature businesses in a competitive environment

While the abovementioned regulatory models have been in place for 40 years, the nature of the airport industry has drastically changed. Airport competition has become a long-established, complex and multi-faceted reality. Market power—the ability of a given airport operator to set aeronautical charges above marginal cost—is significantly limited due to this increased competition and the presence of airline countervailing power. Already in the pre-COVID-19 context, cost-plus or price cap regulations led to institutionalizing unnecessary interventions in the airport business which increased substantially the costs associated with regulatory model and outweighed its benefits in most cases.

Taking stock of ICAO's long-lasting policy that airports should recover their costs and generate enough returns to incentivize the continuous financing of airport activities and development, the unprecedented drop of airport traffic creates a unique opportunity to refocus the economic oversight of airports by ensuring the following principles are met:

- Foster competition
- Protect consumers
- Incentivize investments in capacity and service quality

Additionally, a renewed focus on airlines' countervailing power should also be considered in the context of economic regulatory frameworks. The air transport landscape is undergoing a significant transformation with an array of airlines filing for bankruptcy, ceasing operations and/or being liquidated worldwide. The number of players is being significantly reduced while further consolidation is expected. As such, regulatory authorities may divert the focus of their attention from airport market power to airlines' countervailing power and its impact on the determination of charges at a level that does not threaten the financial recovery of the airport community. Ultimately, the economic regulation of airports should facilitate and incentivize commercial agreements between airports and airlines in a flexible manner responsive to their recovery needs.

2.4.2 Economic regulation frameworks need to change

The COVID-19 outbreak has demonstrated the difficulty to adjust airport costs in a time of crisis, and in the suboptimal outcomes of some regulatory regimes. While airport operators around the globe took urgent cost containment measures, mainly related to across-the-board reductions in operating expenditures, the airport industry remains highly asset intensive. As a result, the airport cost structure is characterized by predominantly high fixed costs necessary for maintaining and operating airport infrastructure, such as runways, taxiways, aprons, parking stands and terminal buildings. ACI's latest data shows that, at global level, more than one third of total airport costs are capital costs—two-thirds of which are related to infrastructure depreciation and amortization and the remaining third accounting for interest expenses on outstanding debt.

As airport traffic has collapsed to unprecedented levels, airport operators have reduced their costs to the largest practical extent. However, the asset-intensive and high fixed-cost nature of the airport industry means that that the drop in airport cost cannot be proportionate to the drop in airport traffic, as it is illustrated in Figure 5. In simple terms, if traffic drops by 60%, it is virtually impossible to reduce airport costs by 60% 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.

Nevertheless, the traditional regulatory models for airport pricing, even though performing reasonably well in normal times when traffic growth or decline are within single-digit ranges, are not able to resolve pricing in extreme circumstances. The stylized example of the model in Figure 5 provides an illustration based on a steep decline in traffic volumes. This means that a plunge of 60% in traffic units is accompanied by a 24% reduction in the overall cost base, resulting in a 90% spike in unit costs and hence a similar jump in the basket of charges.

FIGURE 5 STYLIZED EXAMPLE OF A RAB-BASED MODEL UNDER BUILDING BLOCKS APPROACH—TRAFFIC DROP AND IMPACT ON AIRPORT CHARGES (2019–2020)

	2019	2020	% Change	Comments
Airport costs: (1) operating expenses + (2) depreciation + (3) cost of capital (RAB x WACC)	1,000	760	-24%	Airports have a large share of fixed and sunk costs accounting for 33% of total costs, which are not variable. Operating expenses assumed to have an elasticity of 0.6.
Traffic units	100	40	-60%	Traffic at European airports is estimated to decrease by 60% in 2020
Unit cost (airport costs/traffic units)	$10.00	$19.00	+90%	In building-block approach, sum of total airport cost is divided by traffic units to create a unit cost.

*Source: ACI World

The example in Figure 5 above illustrates that the building-blocks approach inherently acts as a double-edged sword. In a context of robust traffic growth and proper 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. This also comes with a caveat that no major capital expenditure is being undertaken during the period in question. However, the model demonstrates its counter-cyclical pricing outcomes in a context of major shock and radical drops in traffic volumes.

Current economic regulation frameworks hence impose a situation where airport costs should be recovered in a short timeframe on a much-reduced number of passengers and aircraft operators. All things equal, this would be translated into a potentially significant increase of airport charges in the short term, and a stabilization in the long term once traffic recovers its pre-COVID-19 levels.

For airports where regulation remains relevant, the size of the COVID-19 shock means that independent supervisory authorities (ISAs) should be prepared to open price determinations and amend price controls. It will be necessary to prepare for interim reviews of regulatory settlements. Airports may be able to offer flexibility, if the ISA is able to permit this, so that the sharp rise in prices does not kick in immediately. In exchange for this flexibility extended by airports, ISAs and airlines must also accept the need for greater flexibility in the future. For instance, carrying forward losses due to the COVID-19 shock to be recovered in following years, for example by capitalizing a portion of foregone revenues (deferring airport revenues) into the RAB so that it could be recovered in future years on rising volumes.

Commercial agreements and pricing strategies

While airport operators face the similar challenge of recovering traffic in an economically sustainable way, they all face different circumstances. Airport size, location, traffic mix, airline mix, capacity, and a myriad of other factors are all imposing different constraints.

As such, a 'one size fits all' model of cost-plus or price-cap regulation focused on rigid formulae constitutes an impediment to an economically sustainable recovery. Airports should be free to develop and tailor the structure and level of airport charges to their specific circumstances and to develop pricing strategies that meet their competitive and market situations, while balancing the corresponding risks.

This is the most effective way to best serve the needs of the traveling public. Specifically, market-based charging strategies are effective in:

- accommodating and satisfying airline customers through rebalancing aircraft-related and passenger-related charges;
- alleviating capacity bottlenecks and in allocating capacity where it is in short supply, for instance though peak/off-peak charges;
- enabling traffic growth and incentivizing airline clients to open new routes, grow their operations or increase frequencies though the provision of commercial incentives such as rebates and discounts; and
- incentivizing the green development of airports and ensuring environmentally sustainable airline operations at airports, as appropriate.

Several airlines worldwide, along with their trade associations, have already publicly stated that they will put airports in competition with each other as part of their recovery strategy and allocate their fleets to the airport where they receive the best charges pricing offer. Once again, this demonstrates that airport charges should be determined by market-based mechanisms as opposed to intrusive economic regulation on pricing. This approach is an effective way to support both the financial sustainability of the airport industry and the recovery of the airlines.

Moving forward, commercial agreements between an airport operator and its airline clients create opportunities to establish mature, pragmatic and mutually beneficial relations between both parties in the aftermath of the COVID-19 outbreak. Commercial agreements are indeed an efficient way for parties to agree how to work together in a non-discriminatory manner and to share risks. Subject to normal antitrust laws, commercial agreements should be fostered through light-handed economic oversight frameworks.

Policy recommendation: Governments are urged to reconsider their models of economic regulation and move towards light-handed frameworks fostering market-based pricing strategies and commercial agreements. The objective of airport economic oversight should be centered around supporting the recovery of air transport.

ACI World
Suite 1810
800 Rue du Square Victoria
Montreal, Quebec, H4Z 1G8
Canada

www.aci.aero

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