AIRPORTS COUNCIL INTERNATIONAL

Airport Economics 2023 Report

A comprehensive view of the industry's financial performance

Airports Council International (ACI) advances the collective interests 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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2023 ACI World Airport Economics Report

A comprehensive view of the industry's financial performance

Acknowledgements

ACI World extends its gratitude to all airport operators that contributed detailed financial data in a timely manner as it allows us to produce accurate airport economic indicators and analyses. The lists of the contributing operators and airports that have made this report possible are included in the annex.

ACI World would also like to acknowledge the valuable input from colleagues in ACI regional offices on earlier drafts of the *Airport Economics Survey* on which this report is based. We also thank the regional offices for collaborating with airports on the collection of financial and related economic data.

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Message from the Director General

Dear Colleagues and Industry Partners,

It is my pleasure to present the *2023 ACI Airport Economics Report*. The report provides a comprehensive analysis of the economic performance of airports around the world and offers valuable insights into the challenges and opportunities facing the industry. ACI's publication features data for the 2021 financial year, gathered from over 1,000 airports of all sizes and business models, representing 82% of the world's pre-pandemic traffic.

The past year has been a challenging one for the aviation industry, with the ongoing global health crisis causing significant disruptions to air travel and economic activity. Despite this, airports have continued to play a vital role in the global economy, serving as critical infrastructure for the movement of people and goods.

This year's report presents an overview of the industry's financial recovery trends across the world as we come out of the pandemic. The data supporting the summaries and commentary is available in the *2023 Airport Key Performance Indicators*, which provides insight into areas, such as financial and employee performance, fixed-asset productivity, and airport operations, and includes 53 detailed statistical tables.

I would like to acknowledge and thank all the airports that submitted data while continuing to struggle with the lasting effects from the ongoing health crisis. This data is crucial for our industry and for our advocacy efforts.

I hope that the insights and data in this report provide valuable guidance to navigate the path to recovery. Together, we can continue to support the growth and development of the global aviation ecosystem.

Sincerely,

Luis Felipe de Oliveira
Director General
ACI World

Report methodology

Sample and coverage

The key performance indicators (KPIs) and the contents of this report are based on an annual survey that generated responses from 1,087 airports for the 2021 financial year. Together, these airports handled over 7 billion passengers or about 82% of worldwide passenger traffic in 2019.

The objectives of the sampling were three-fold. The first objective was to maximize participation and coverage of the world's top airports in terms of passenger and cargo traffic. The second objective was to increase the participation of airports with lower traffic levels to introduce analytical variation and rigour to the dataset. Finally, we regarded regional representation as a vital component in presenting a global picture of the industry. Simulations were conducted based on the sample to produce an accurate distribution of traffic across the world's regions.

In terms of the actual number of participating airports, Asia-Pacific represents the largest portion of the sample (330), followed by Europe (260), North America (225), Latin America-Caribbean (189) and Middle East (19). Table A below provides a breakdown of the report's coverage. Regarding airport size categories, airports were classified as per their 2019 passenger traffic to ensure continuity within a group: 268 airports are in the less than 1m category; 179 airports are in the 1–5m category; 96 airports are in the 5–15m category; 33 airports are in the 15–25m category; 29 airports are in the 25–40m category; and 40 airports are in the over 40m category. Some operators provided aggregate data for multiple airports, but these responses were treated differently; included in analyses by region but excluded from the analyses by airport size category.

When collecting the data, each individual airport's submission was analyzed for consistency and coherence across each indicator in the *Airport Economics Survey*. Various quality indicators were used to detect any outliers or anomalies in the dataset. Statistical quality control was conducted in consultation with airport data providers as needed.

Table A: Data coverage

Region	Number of participating airports	Passenger* traffic covered 2019
Africa	64	66%
Asia-Pacific	330	82%
Europe	260	76%
Latin America-Caribbean	189	74%
Middle East	19	52%
North America	225	99.6%
World	1087	82%
<1m	268	27%
1–5m	179	39%
5–15m	96	57%
15–25m	33	58%
25–40m	29	74%
>40m	40	74%

* Passenger traffic refers to arriving, departing and transit passengers

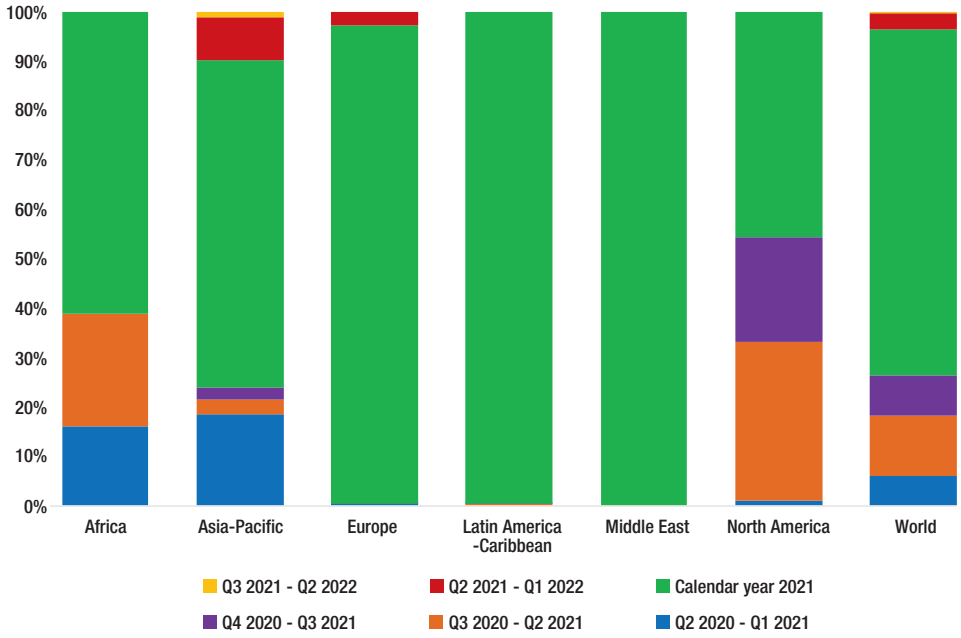
Financial year 2021

To facilitate the collection of financial data, the following periods are included in the 2021 financial year as submitted by the airports: Q2 2020 – Q1 2021, Q3 2020 – Q2 2021, Q4 2020 – Q3 2021, calendar year 2021, Q2 2021 – Q1 2022, Q3 2021 – Q2 2022.

Although the majority of the sample reported their financial data in the calendar year, there are discrepancies between regions in terms of financial year reporting. Notably, in North America, 32% of the sample in terms of passenger traffic ended their financial year in June 2021. In Africa, 16% of the sample ended their financial year in March 2021 and 23% of the sample ended their financial year in June 2021.

When interpreting the results, it is crucial to understand where airports stand in their recovery of passenger traffic in relation to their financial year. For example, an airport in the United States may have seen a growth of 67% of in passenger traffic over the calendar year 2021 and at the same time, a decrease of 52% in passenger traffic over their financial year 2021, starting July 2020 and ending in June 2021. This is also true for Africa and Asia-Pacific.

Chart A:
Distribution of passenger traffic coverage by financial year



Source: ACI World 2023 Airport Key Performance Indicators

Estimation and simulation

In certain instances where data was not readily available for the reference period, various techniques were used to estimate missing data. Depending on the variable being analyzed and the availability of past time series data, econometric techniques or other simulation methods were used to estimate missing data.

International comparability

Individual airport financial data was submitted in 61 different currency denominations and converted into US dollars (US$) using official exchange rates determined by the foreign exchange market and/or national authorities. The exchange rate was calculated as an annual average based on monthly averages and expressed as local currency units relative to the US dollar.

The financial figures for the previous year (2020) were adjusted by the inflation rate, defined as the change in average consumer prices. This mitigates currency fluctuations through 2020 and 2021 and allows the comparability and accuracy of US$ amounts across the two years.

Both inflation and exchange rates were obtained from the International Monetary Fund's (IMF) *World Economic Outlook Databases and International Financial Statistics.*

1. Global Analysis

1.1 The global economy

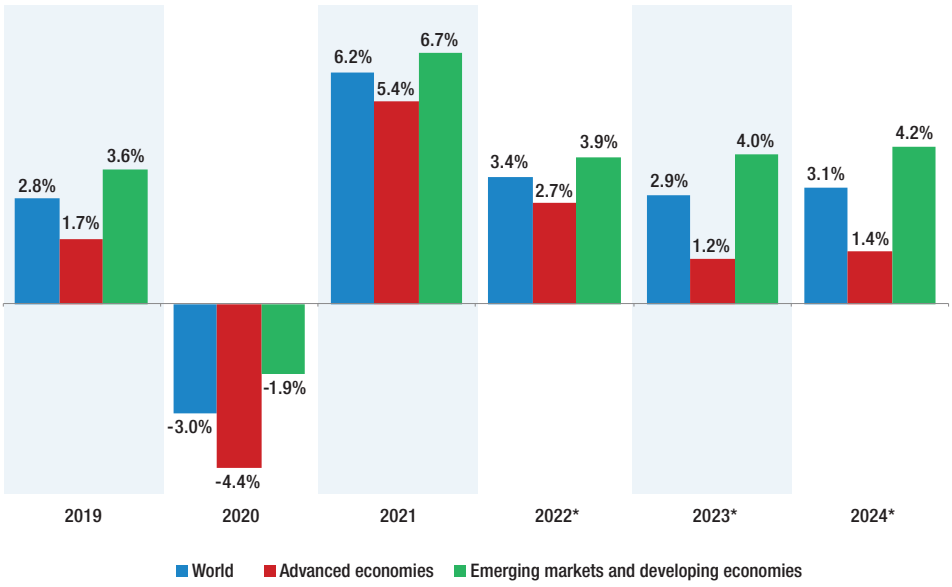
After the 2020 slump produced by the COVID-19 pandemic, economic activity swiftly recovered in 2021 and 2022. People and businesses were able to adapt to a new reality dominated by looming uncertainty. This condition is set to persist in the short-term as there are numerous obstacles for the global economy, such as high inflation, supply-chain disruptions and geopolitical conflicts.

The International Monetary Fund (IMF) estimates growth of 3.4% in 2022 for the world's Gross Domestic Product (GDP) (Chart 1). One factor contributing to this growth is the continued rollout of vaccines for COVID-19 and the alleviation of travel restrictions. As more and more people are vaccinated, restrictions on travel and commerce have been lifted, leading to an increase in global trade and economic activity. This is an essential factor for air travel to be able to fully deploy its multiplier effect, especially when traffic to and from major airport hubs is untapped.

Economic recovery in emerging markets outpaced that of advanced economies. For instance, the IMF estimates GDP growth for emerging markets in 2022 was 3.9%, compared with 2.7% for advanced economies. This is due in part to the fact that many emerging markets were not as severely impacted by the pandemic as advanced economies and therefore were able to keep steady levels of growth.

Despite this positive pace of recovery, there are still risks to the global economy. The most obvious manifestation of such risks is the significant increase in inflation across many economies. G20 countries registered an 8.6% inflation rate for 2022, for instance. The interplay between geopolitical conflicts and rising prices remains a top threat to the global economy. Many analysts suggest that the inflation rate has already peaked and will subside in 2023 based on aggressive monetary tightening by central banks. Although 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. As with any other good or service, the impact of prices and disposable income remain important determinants of air transport demand. Thus, uncertainty regarding a full recovery of the aviation industry remains omnipresent, especially in the near term.

Chart 1:
Global economic growth
(year-over-year % change in GDP, 2019–2024)



*Projected

Source: International Monetary Fund (IMF), World Economic Outlook Database (2022)

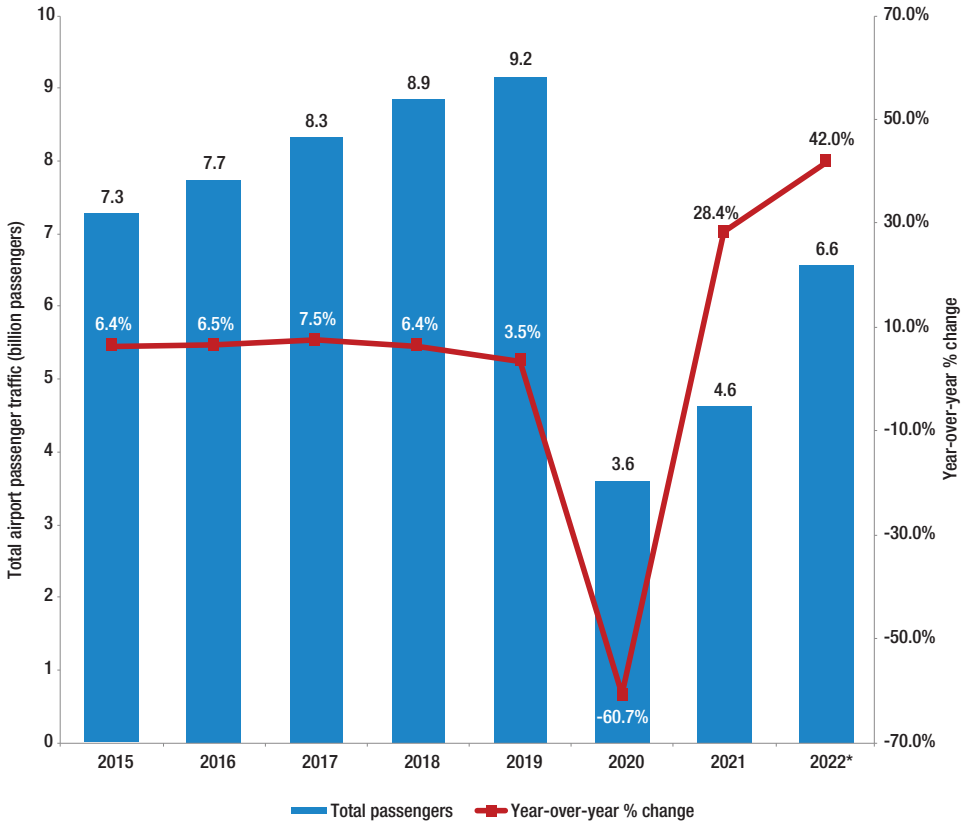
Overall, the global economy had a rapid recovery in 2022 after the pandemic-induced crisis. The speed of recovery for 2023 and beyond still depends on several factors with a number of market pendulums moving in opposite directions creating a level of uncertainty. On the one hand, the possible contraction in GDP or slowdown in 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 in 2023. This could dampen or delay the recovery from the COVID-19 pandemic and a return to 2019 passenger traffic volumes. On the other hand, a strong labor market and the re-opening of China, the second biggest aviation market after the United States, represents an important boost to global passenger traffic. Even with the ongoing presence of COVID-19 variants and the recent imposition of travel restrictions and testing requirements on travellers departing China by several countries, the re-opening of China's borders represents an overall gain for domestic and international travel.

1.2 Air transport demand

1.2.1 Passenger traffic

Global passenger traffic continues a steady recovery after the worst crisis in its history. During 2021, passenger traffic grew 28.4% compared with 2020, the equivalent of 1.0 billion passengers (Chart 2). This trend continued during 2022, with an estimated increase of 42.0% compared with 2021. This is one of the most significant increases of the last decade, but still leaves the industry 2.6 billion passengers behind its 2019, pre-pandemic level. In 2022, passenger traffic was at 72% of 2019 levels.

Chart 2:
Evolution of global airport passenger traffic (billion passengers, 2015–2022*)



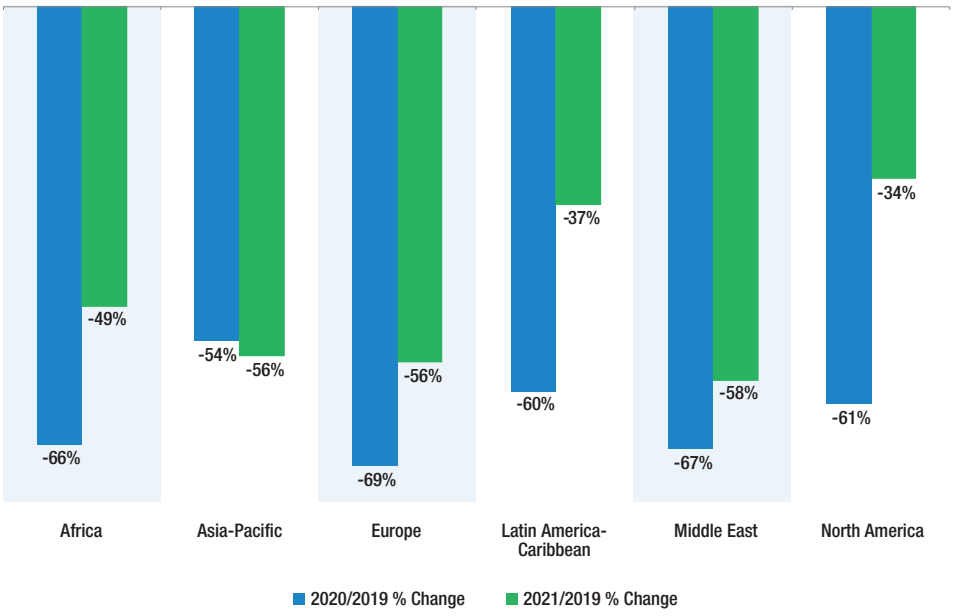
* Preliminary figures

Source: ACI World Annual Traffic Database

Recovery has been heterogenous across the globe. For instance, Asia-Pacific lagged as China's sizable aviation market experienced international travel restrictions during 2021 and 2022. However, as China lifted travel restrictions in early 2023, growth in the Asia-Pacific region picked up as the Beijing, Guangzhou and Shanghai hubs resumed their role as major traffic connectors. This situation is shared by some of the major European and Middle Eastern hubs, as their high dependency on international connections has prevented them from achieving pre-pandemic traffic volumes.

North America has seen the best recovery levels worldwide with passenger traffic reaching 66% of 2019 levels during 2021 (Chart 3). A swift vaccine distribution, the easing of travel restrictions, and a solid domestic market fostered the return of North American travellers to the skies for both leisure and business purposes. Latin America-Caribbean and Africa also posted strong numbers for 2021 and were 37% and 49% below 2019 traffic levels respectively by the end of the year. These two regions have benefited from a growing low-cost carrier industry that promotes the swap from road to air travel.

Chart 3:
Passenger traffic growth rates by region (2020/2019 and 2021/2019)

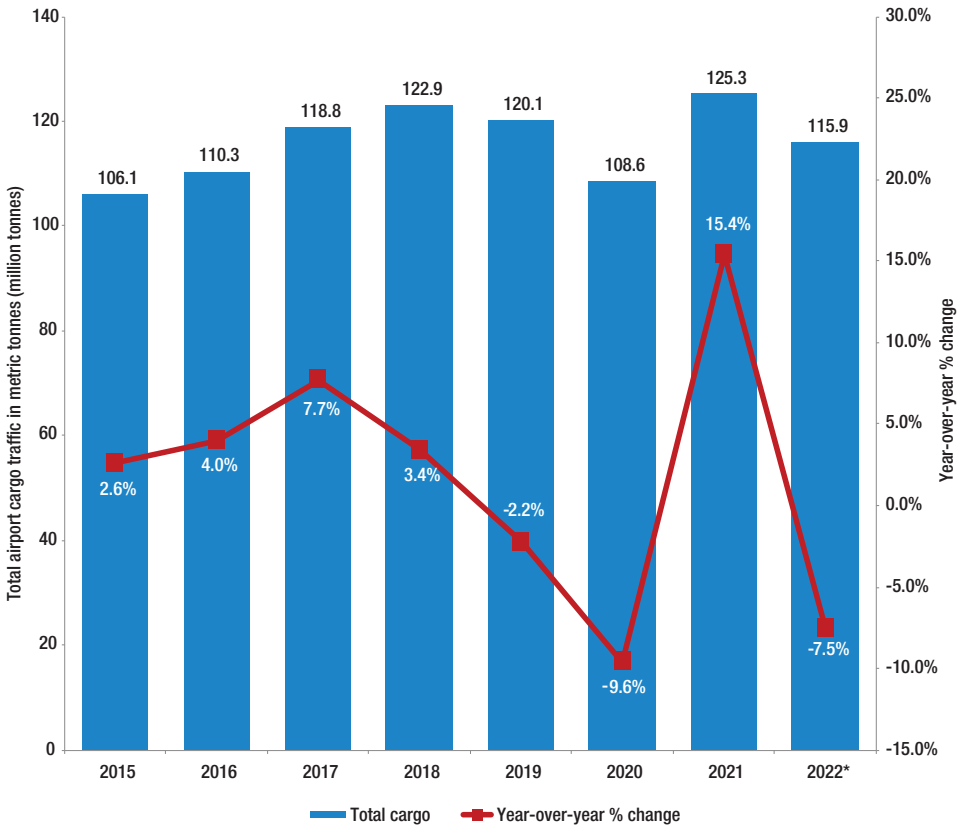


Source: ACI World Annual Traffic Database

1.2.2 Air cargo traffic

Air cargo had its best year in history in 2021, with 125.3 metric tons transported through airports worldwide (Chart 4). Unlike passenger traffic, cargo traffic was not heavily affected by international travel restrictions. Even with the reduced capacity due to less passenger plane belly cargo, air cargo kept growing as it positioned itself as the fastest and most reliable transportation option. Additionally, disruptions to maritime transportation promoted the move to air cargo for many products and industries. Another key element for air cargo during 2021 was e-commerce, with companies demanding more capacity to transport parcels. Air cargo volume had an estimated decrease of 7.5% during 2022, partially due to adverse macroeconomic conditions and increases in oil prices.

Chart 4:
Evolution of global airport cargo traffic (million tonnes, 2015–2022*)



* Preliminary figures
Source: ACI World Annual Traffic database

Methodological note:

Figures in Charts 2, 3 and 4 represent the most comprehensive sample of airports for which annual traffic data for the year 2021 was collected. These charts are taken from the *ACI 2021 World Annual Traffic Report*. The subsequent analyses of revenues, costs and other economic indicators are based on a smaller sample of airports, as per Table A above. Hence, readers are advised against reconciling global traffic data with sample-specific economic analyses.

2. Airport Revenues

2.1 The airport industry

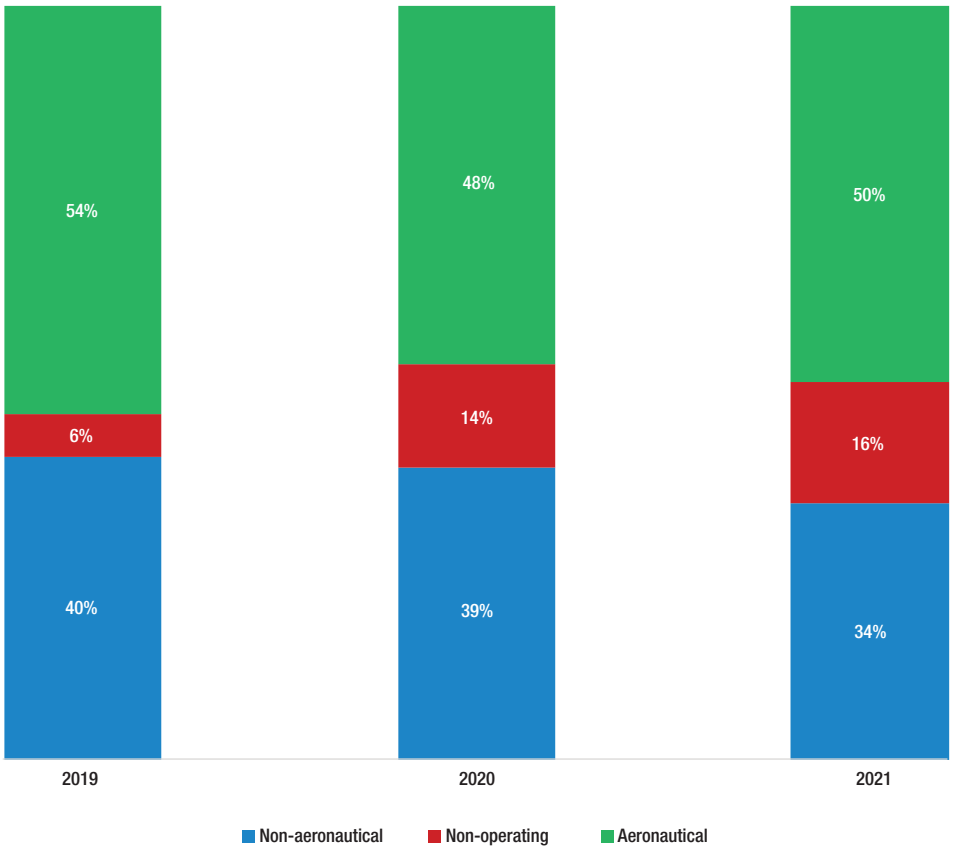
Revenues derived from passengers are the main source of funds for airports around the world, and 2021 was no different. Given the high correlation between airport revenues and passenger traffic, the implosion in passenger traffic—resulting from international travel restrictions—had a direct impact on airport revenues, forcing airports to find such additional sources of capital as issuing debt and equity.

Before the pandemic, there was a solid balance between aeronautical and non-aeronautical revenues. Annual growth rates for both revenue sources were at an average of about 5% for the 10 years preceding the pandemic. As passenger traffic was disrupted, revenue growth stopped, and the distributional balance between aeronautical and non-aeronautical revenues was broken. Since cargo traffic was the only source of revenues that remained stable, aeronautical revenues gained more importance due to the constant flow of cargo aircraft landing and parking charges.

Another key factor that served as a lifeline for multiple airports worldwide is non-operating revenue. This category comprises interest income, subsidies, grants, asset divestments and other related non-operating items. Non-operating revenues experienced some growth as several legislations around the world approved crisis support packages to help airports cope with the massive decrease in passenger traffic though this was not uniform across regions.

In 2021, aeronautical revenue was the largest source of income for airports, representing 50% of the total (up 2 percentage points from 2020), whereas non-aeronautical revenues made up 34%, down 5 percentage points from 2020. Non-operating revenue represented 16% in 2021, up 2 percentage points from 2020, mainly due to the aforementioned grants, subsidies and other pandemic-related help packages (Chart 5).

Chart 5:
Distribution of airport revenues by key source (2019, 2020, and 2021)

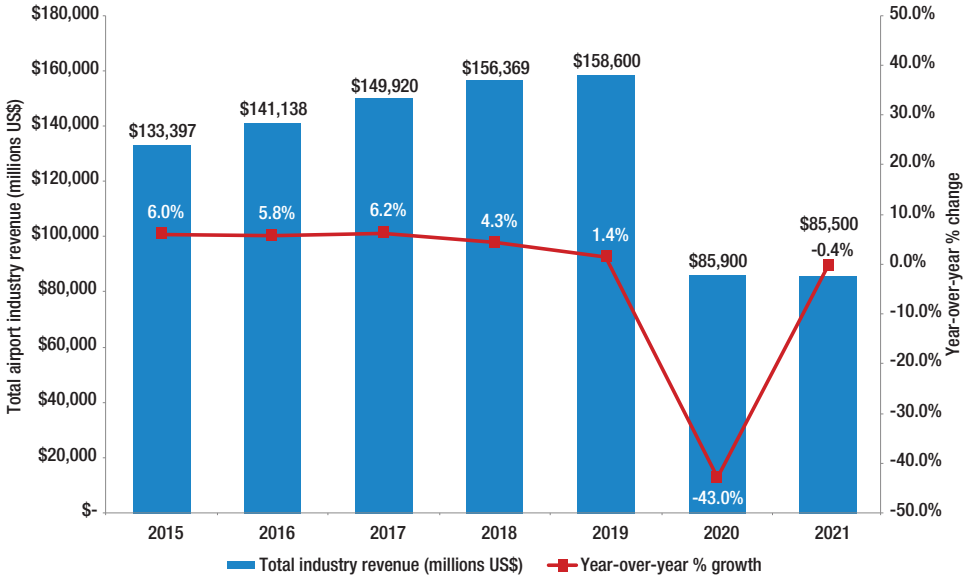


Source: ACI World Airport Economics Database

In 2021, total airport revenue amounted to US$85.5 billion, down US$0.4 billion from 2020 and significantly down from US$158.6 billion in 2019 (Chart 6). This represents a decrease of 0.4% compared with 2020, and a decrease of 43% compared with 2019. Though traffic showed signs of a recovery, airport revenues decreased marginally in 2021, mainly due to the decreases in non-aeronautical revenues as relief measures from airports to commercial concessionaires went into effect.

Prior to the pandemic, per passenger revenue was falling slightly due to the rapid expansion in passenger traffic during the 2010s. In 2021, revenue per passenger surpassed pre-pandemic levels reaching a decade-high number (Chart 7). This increase was mainly due to a collapsing traffic base as part of the denominator.

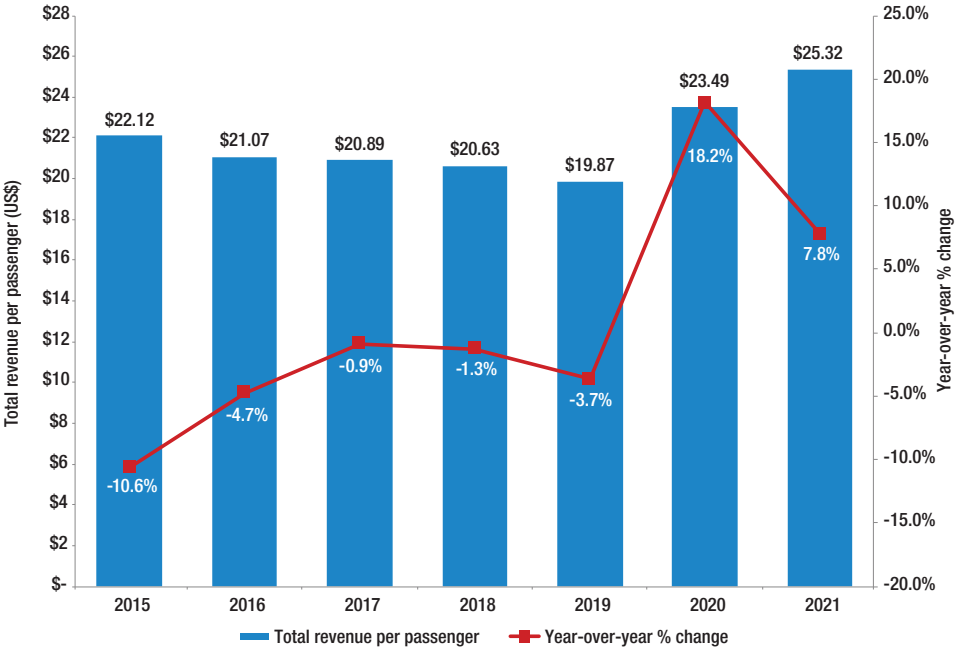
Chart 6:
Evolution of industry total revenue (million US$) and year-over-year % growth (2015–2021)



Source: ACI World Airport Economics Database

Note: Previous years' data was adjusted to present value according to the level of inflation. Time series represent real values with 2021 being the base year.

Chart 7:
Evolution of total revenue per passenger and year-over-year % growth (US$, 2015–2021)

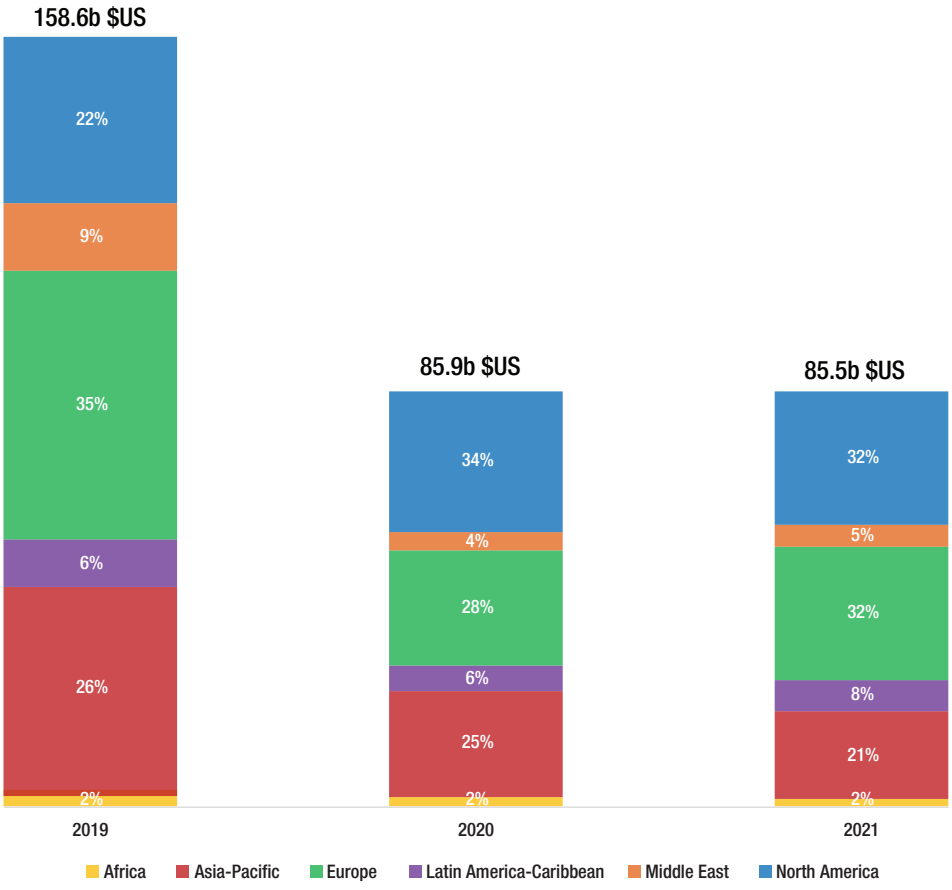


Source: ACI World Airport Economics Database

Note: Previous years' data was adjusted to present value according to the level of inflation. Time series represent real values with 2021 being the base year.

In terms of revenue share by region, North America remained the top region worldwide during 2021 with 32% of total revenues (Chart 8). Government grants in the United States through the CARES Act, coupled with a solid domestic market, were key factors behind North America's prime positioning. A stronger intra-European travel market allowed Europe to follow closely with 32% of total revenues, a recovery of 4 percentage points from 2020. Asia-Pacific fell 4 percentage points from 2020 to 2021, the 21% share of revenues largely a result of international travel restrictions prevalent in China. The Latin America-Caribbean region had strong results, however, due to rapidly recovering passenger traffic and expansion in the low-cost carrier market and achieved an 8% share of total airport revenue in 2021. Finally, the Middle East and Africa remained stable with a 5% and 2% share respectively.

Chart 8:
Distribution of global airport revenues (2019, 2020, and 2021)



Source: ACI World Airport Economics Database

The recovery of airport revenues varied throughput the world and is correlated to the recovery of passenger traffic. Overall, during financial year 2021, airport revenues saw a small decrease of 0.4% compared with 2020 (Table 1). The Latin America-Caribbean region had the largest revenue increase with a 27.2% change year over year, due to the expansion of low-cost carriers and relaxation of international travel restrictions. The Middle East followed with an increase of 18.1%, as the main hubs in the region started to recover connectivity. Europe was able to bounce back 17.0%, supported by strong intra-European travel to leisure destinations. North America had a stable result with a decrease of 3.9% compared with 2020. Lastly, Asia-Pacific saw the result of the travel restrictions in China manifested in a 16.9% decrease in revenues, while Africa had a 30.8% decrease as the region's international travel markets suffered and vaccination rates among the African population lagged.

Table 1: Estimated industry revenues and costs (million US$, 2021)

Region	Total revenue	2021/2020 % change	Aeronautical revenue	2021/2020 % change	Non-aero-nautical revenue	2021/2020 % change	Non-operating revenue	2021/2020 % change
Africa	1,400	-30.8%	900	-27.4%	400	-36.7%	100	-34.8%
Asia-Pacific	18,200	-16.9%	7,700	-15.6%	8,700	-20.7%	1,800	19.1%
Europe	27,500	17.0%	14,500	24.3%	11,300	5.9%	1,700	6.5%
Latin America-Caribbean	6,500	27.2%	4,300	40.2%	1,900	18.1%	300	-1.8%
Middle East	4,400	18.1%	2,300	24.6%	1,900	15.2%	200	-1.8%
North America	27,500	-3.9%	13,300	-3.1%	7,500	-11.7%	6,700	-0.5%
World	**85,500**	**-0.4%**	**43,000**	**3.2%**	**31,700**	**-7.7%**	**10,800**	**2.6%**

Region	Operating expenses	2021/2020 % change	Capital costs	2021/2020 % change	Total cost (operating + capital costs)	2021/2020 % change
Africa	1,200	-8.2%	700	-6.7%	1,900	-9.1%
Asia-Pacific	16,600	-2.8%	8,600	-4.6%	25,100	-3.4%
Europe	21,000	-8.8%	13,200	-12.1%	34,200	-10.1%
Latin America-Caribbean	3,500	15.6%	2,300	-14.6%	5,800	-3.2%
Middle East	3,800	7.1%	2,800	-2.0%	6,600	3.0%
North America	13,600	-12.3%	12,500	-1.7%	26,100	-7.6%
World	**59,700**	**-6.7%**	**40,100**	**-6.8%**	**99,700**	**-6.9%**

Source: ACI World 2023 Airport Key Performance Indicators

2.2 Aeronautical revenues

Aeronautical revenues are generated from an array of charges and fees that are levied on users and passengers of airport facilities and services.

These revenues play a crucial role in the development and maintenance of airport infrastructure. They are used to upgrade and modernize facilities in line with sustainability goals, to improve safety and security measures and to adopt new technologies and services. This ensures that airports can meet the growing demand for travel and provide passengers with a smooth and efficient experience.

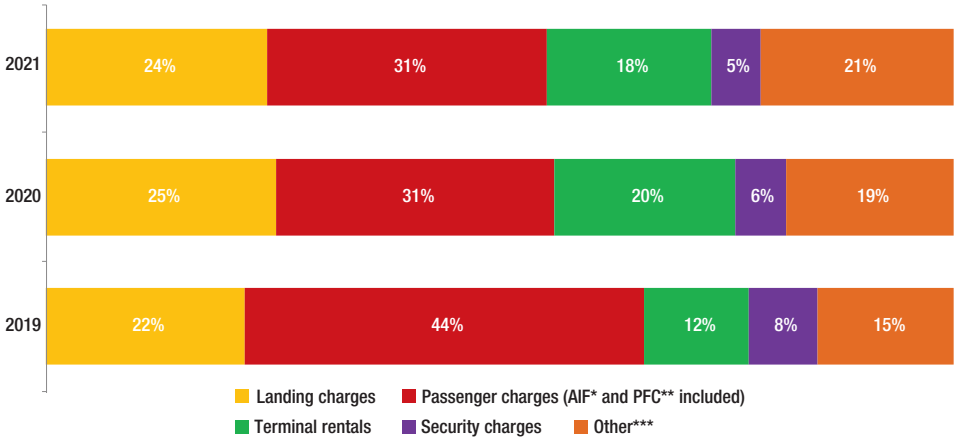
Aircraft operators, both commercial airlines and general/business aviation, typically pay charges for the use of airside infrastructure (including runways, taxiways, aprons, parking stands and airbridges) at airports. These charges are usually based on an aircraft weight formula. They can also vary depending on the length of time an aircraft is parked. Meanwhile, passengers typically pay charges for the use of passenger processing facilities, including terminals, ground access to terminals and security services. These charges are normally collected by aircraft operators on behalf of airports to avoid delays and bottlenecks in facilitation. Passenger-related charges are accrued on a per-passenger basis. Finally, a transfer charge may be levied on passengers transferring to other aircraft.

Prior to the pandemic, many airports moved toward charging systems that aim to accommodate and satisfy airline customers by rebalancing the scale between aircraft-related charges and passenger-related charges, depending on the specific requirements and local circumstances. This move took place in a context of increased competition, capacity constraints and congestion, especially at many of the world's major airports.

Chart 9 provides a detailed breakdown of global aeronautical revenues. As shown, passenger charges continue to be the largest source of aeronautical revenue for airports at 31%, followed by landing charges at 24% and terminal rentals at 18%. Due to the steep decline in passenger volume, passenger-related revenues have not been able to fully recover their pre-pandemic share of total aeronautical revenues and in 2021 were still 13 percentage points behind their 2019 level. The share of terminal rentals[1] paid by airlines for space utilization almost doubled in 2020 and now accounts for 18% of global aeronautical revenue, though this revenue source is mainly limited to North America.

[1] The Federal Aviation Administration (FAA) classifies terminal rentals as passenger/airline aeronautical revenues.

Chart 9:
Distribution of aeronautical revenue sources (2019, 2020, and 2021)

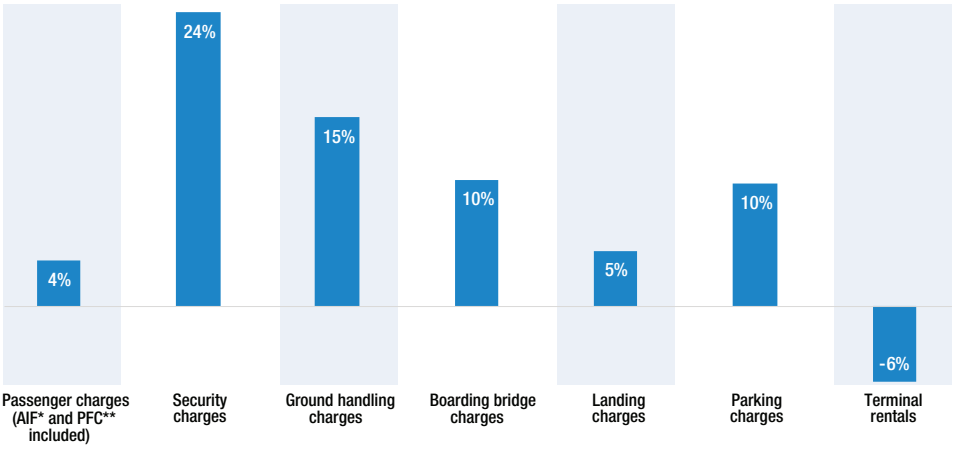


* Airport improvement fees.
** Passenger facility charges.
*** Includes miscellaneous passenger-related, aircraft-related, cargo-related charges, and all other unidentified charges of aeronautical nature.
Source: ACI World Airport Economics Database

When looking at individual aeronautical revenue sources, passenger charges were able to recover 4% in 2021, having drastically fallen during the pandemic. The remainder of aeronautical charges followed a positive path alongside traffic recovery, the only exception being terminal rentals, which fell 6%.

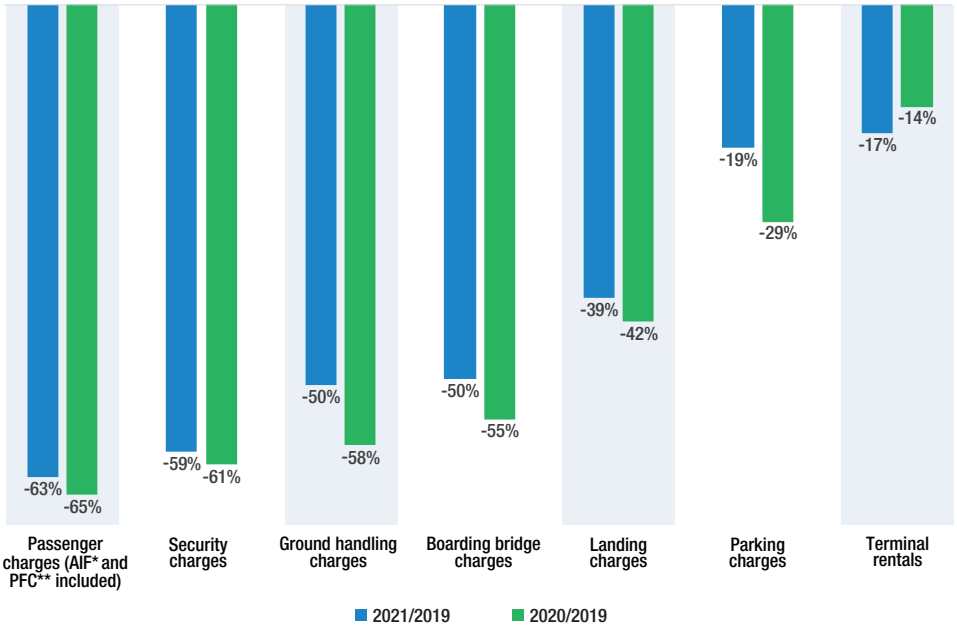
Chart 10 summarizes growth rates for the major sources of aeronautical revenue.

Chart 10:
Year-over-year % change in selected aeronautical revenue sources (2021/2020)



* Airport improvement fees.
** Passenger facility charges.
Source: ACI World 2023 Airport Key Performance Indicators

Chart 11:
Year-over-year % change in selected aeronautical revenue sources (2020/2019 and 2021/2019)

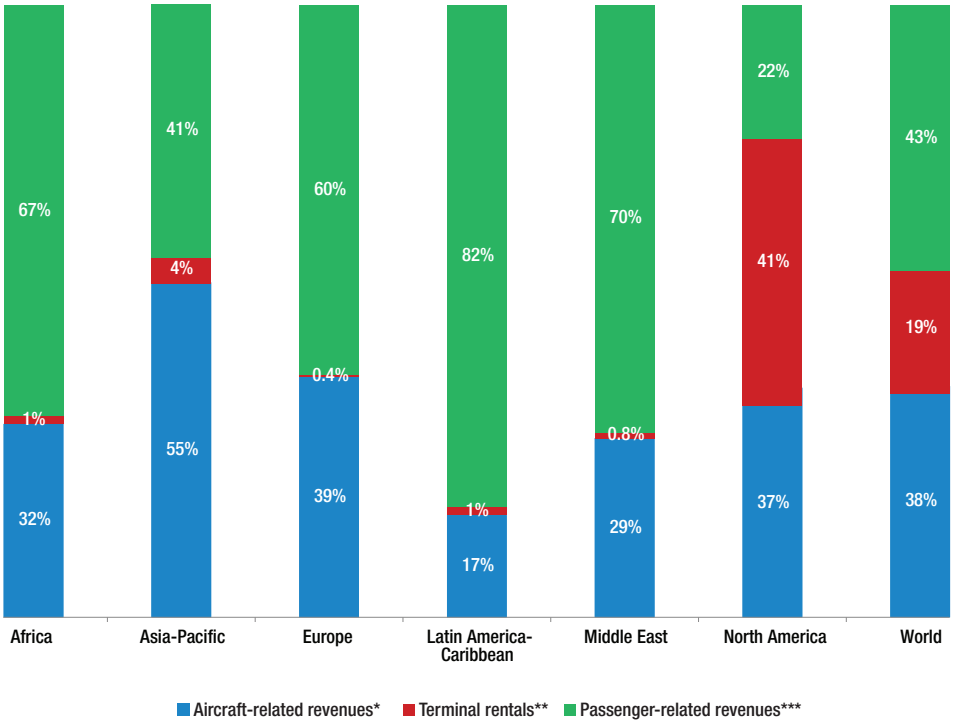


* Airport improvement fees.
** Passenger facility charges.
Source: ACI World 2023 Airport Key Performance Indicators

Except for the United States, where the Passenger Facility Charge (PFC) limits the collection of PFC fees to US$4.50 for every departing passenger at commercial airports controlled by public agencies, many airports emphasise generating revenues by charging passengers as opposed to aircraft operators. The ratio of passenger-related versus aircraft-related revenue reveals this emphasis. As was the case prior to the pandemic, the Middle East, Latin America-Caribbean and Africa recorded the highest proportion of revenue coming from passenger-related charges in 2021 (Chart 12).

Globally, in 2021, 43% of airport revenues was passenger-related, 38% was aircraft-related, and 19% was terminal rentals. When looking at the regional difference, most airport revenues in North America were terminal rentals. In Africa, Europe, Latin America-Caribbean and the Middle East, the percentage of passenger-related revenues was much higher, between 60% and 82%. Asia-Pacific continued to record a more balanced ratio of revenues from aircraft-related charges and passenger-related charges.

Chart 12:
Ratio of aircraft-related to passenger-related revenues by region (2021)



* Landing charges, parking charges, boarding bridge charges, noise and environmental charges, navaid charges and all other aircraft-related charges.

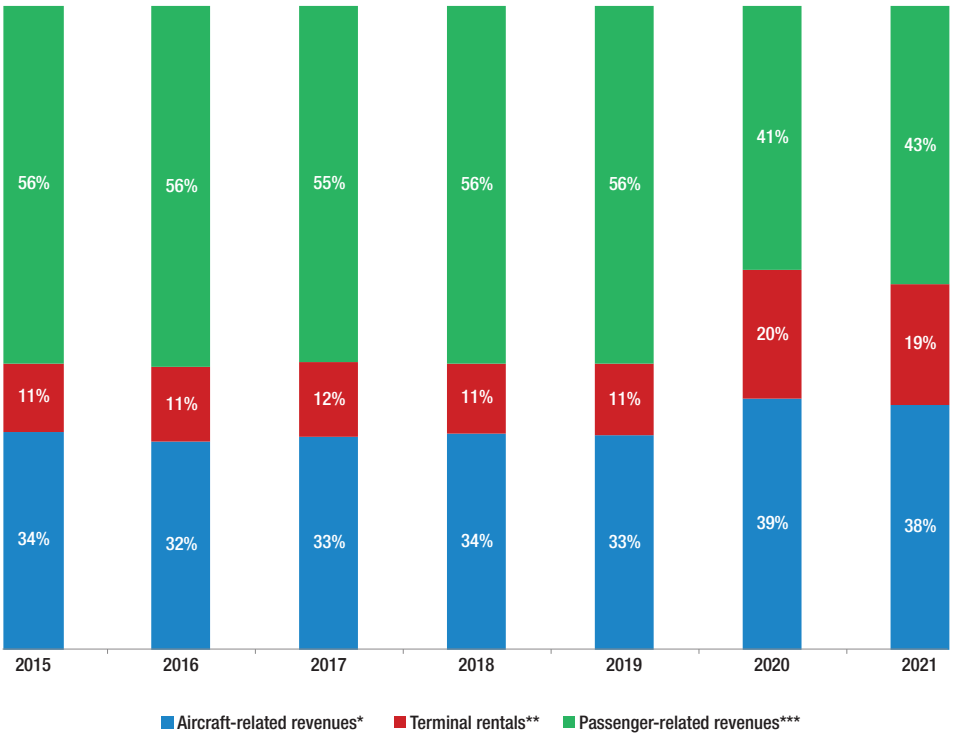
** Terminal rentals are mainly limited to North America. The Federal Aviation Administration (FAA) classifies terminal rentals as passenger airline aeronautical revenues.

*** Passenger charges (including AIF and PFC charges), security charges, transfer/transit charges and all other passenger-related charges.

Source: ACI World 2023 Airport Key Performance Indicators

Over the years, there was a reliance on passenger-based revenues, comprising about 55%–56% of airport aeronautical revenues. The pandemic-related decrease in passenger traffic disrupted this norm. Despite the sharp decline in landing charges due to the pandemic, there were still air cargo operations. Thus, the relative share of aircraft-related revenues has been more significant since 2020 compared with passenger-related revenue. In 2021, passenger-based and aircraft-related revenues had similar shares at 43% and 38% respectively (Chart 13).

Chart 13:
Ratio of aircraft-related to passenger-related revenues (2015–2021)



* Landing charges, parking charges, boarding bridge charges, noise and environmental charges, navaid charges and all other aircraft-related charges.

** Terminal rentals are mainly limited to North America. The Federal Aviation Administration (FAA) classifies terminal rentals as passenger airline aeronautical revenues.

*** Passenger charges (including AIF and PFC charges), security charges, transfer/transit charges and all other passenger-related charges.

Source: ACI World Airport Economics Database

2.3 Non-aeronautical revenues

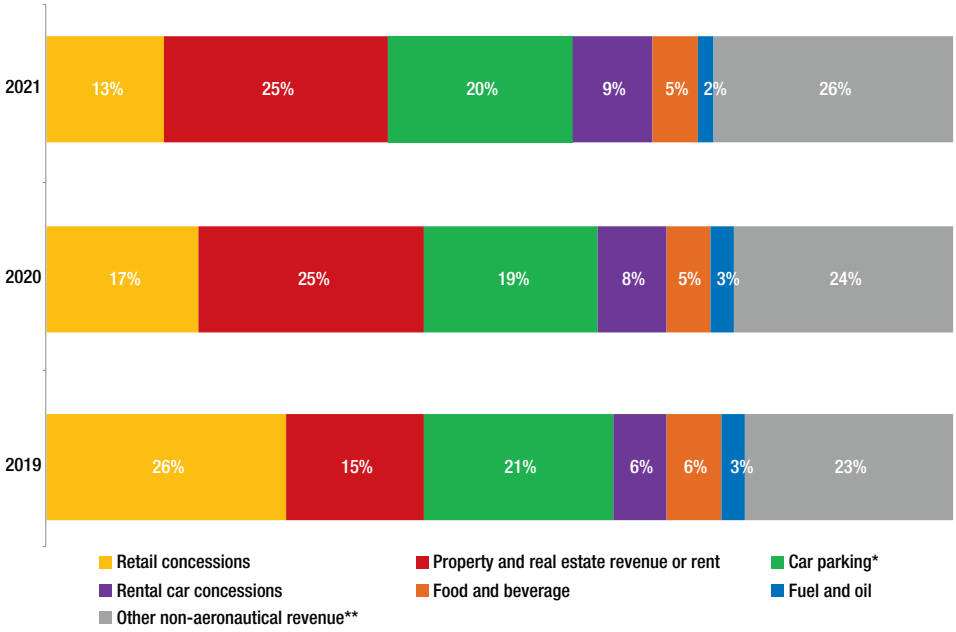
Because aeronautical revenues are insufficient to cover the full cost of the infrastructure and other services, it is important to diversify the airport portfolio of activities and revenues to offer passengers, customers and local business communities a wide range of services.

Consequently, revenue sources on the commercial side of the airport business (i.e., non-aeronautical revenues) tend to be more diverse than traditional aeronautical revenue streams. In normal times, these non-aeronautical revenues constitute a vital component of an airport's income statement and its bottom line. Such sources of revenue also tend to generate higher net profit margins than aeronautical revenues. Not only do non-aeronautical sources of revenue provide diversification of airport income streams but also they serve as an additional cushion during economic downturns. Nevertheless, the decreased flow of passengers also affected non-aeronautical revenues. The fact is that these revenues depend on passenger traffic and is one of the reasons why the industry was forced into survival mode during the crisis.

Non-aeronautical revenue may be derived from rents charged to concessionaires offering a wide range of services to passengers, including car parks within the airport boundary, retail, banking, advertising and car rental facilities on the airport site. It may also relate to revenue from rents for office accommodation on airport land, either in the form of rents for offices built by the airport operator or rents for airport land leased to third parties on which offices or other facilities have been built. Other minor sources of non-aeronautical revenue may include such various charges as those for third-party employee security passes, pass-through charges for utilities consumption or access charges for public transport operators.

Chart 14 provides the global breakdown of non-aeronautical revenue by source. The pandemic shifted the balance for non-aeronautical activities, giving less weight to passenger-dependent sources, such as retail concessions, which fell from 26% in 2019 to 13% in 2021. On the other hand, property and real estate revenue has gained 10 percentage points since 2019 to become the largest source, accounting for 25% of all non-aeronautical revenues. This increase is partly due to the role the cargo industry has played during the pandemic, with freight forwarders and cargo handling companies continuing to lease space for their operations within airports' grounds. Finally, car parking remained stable as the North America domestic market provided a steady source of income throughout the pandemic.

Chart 14:
Distribution of non-aeronautical revenue by source (2019, 2020, and 2021)



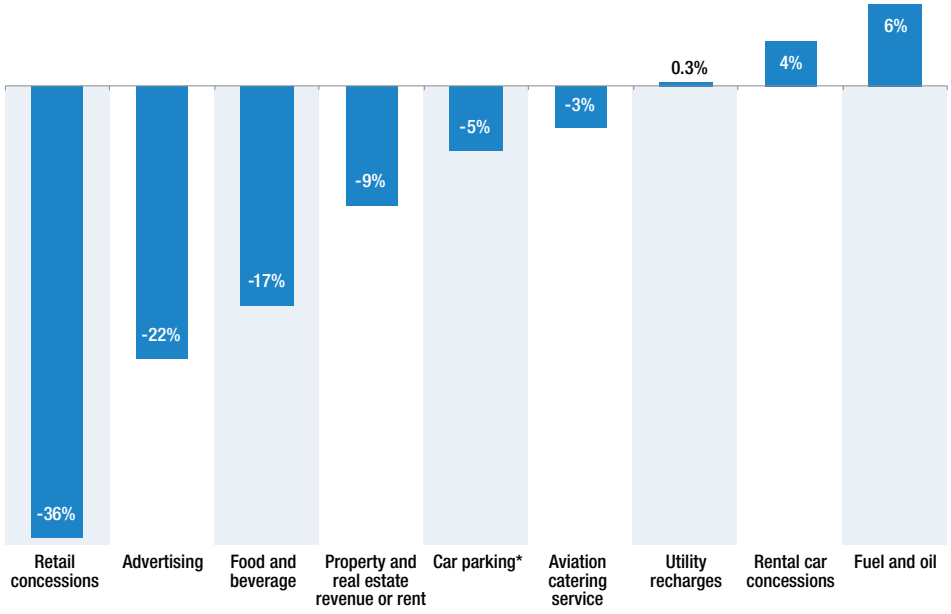
* Includes revenue from airport-operated parking lots and car parking concessions revenue

** Includes revenue from other unspecified concessions, revenue from other unspecified activities undertaken by an airport and other unspecified non-aeronautical activities

Source: ACI World Airport Economics Database

Although passenger traffic partially recovered in 2021, there were multiple non-aeronautical revenue sources that experienced further declines compared with 2020. For instance, revenue from retail concessions fell 36% as many airports implemented support measures to help retailers cope with the crisis (Chart 15). Similarly, advertising and food and beverage had declines of 22 and 17 percentage points respectively due to their high dependency on passenger traffic. The best performing category was fuel and oil, mainly due to the increase in crude oil prices that has a direct impact on variable fees paid to airports

Chart 15:
Year-over-year % change in selected non-aeronautical revenues (2021/2020)

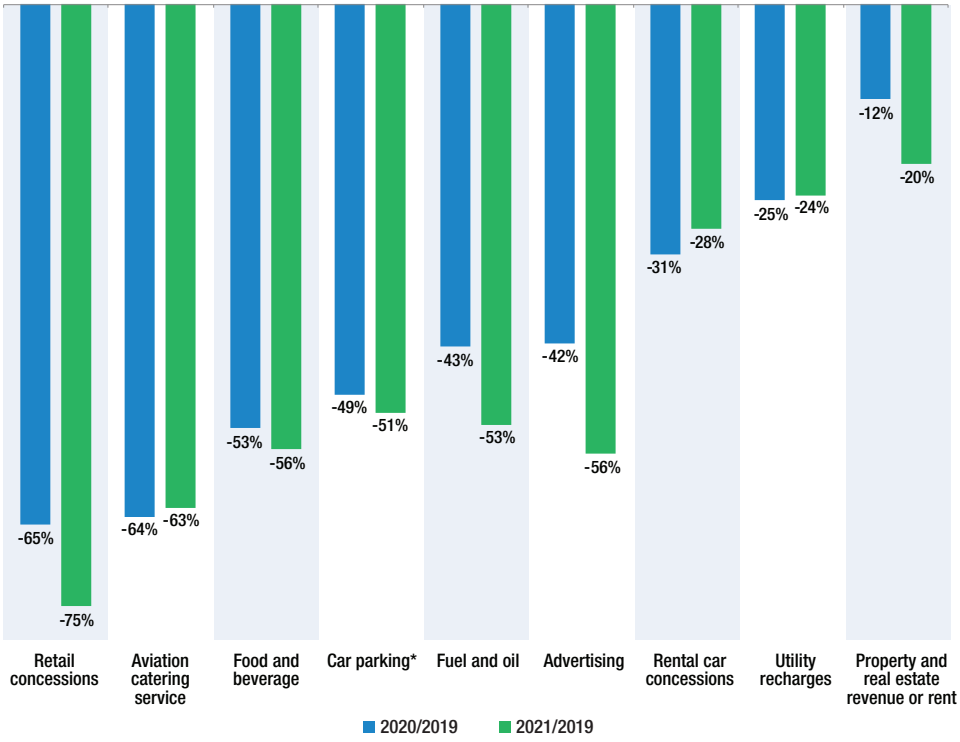


* Includes revenue from airport-operated parking lots and car parking concessions revenue

Source: ACI World 2023 Airport Key Performance Indicators

Non-aeronautical revenues have recovered slower than aeronautical revenues. Chart 16 illustrates the lasting impact the pandemic has had on several non-aeronautical categories. A key factor behind this is the incentives many airports have provided to commercial operators, such as rent reductions and discounts. Two major categories feeling the effect of the incentives are retail concessions and food and beverage, which are still 65% and 53% behind their 2019 levels.

Chart 16:
Year-over-year % change in selected non-aeronautical revenues (2020/2019 and 2021/2019)



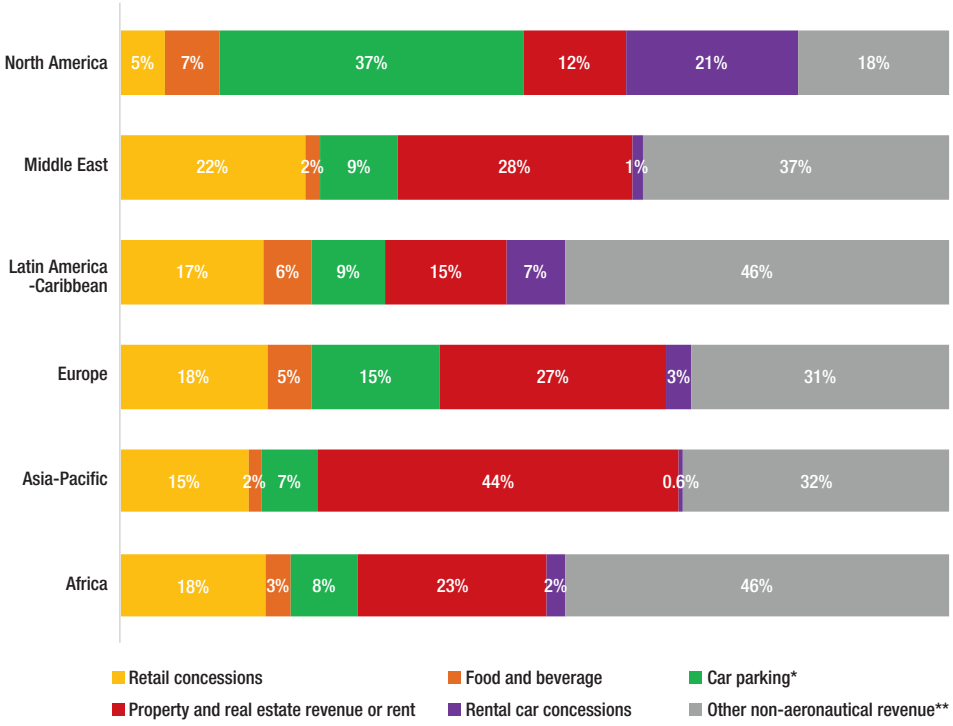
* Includes revenue from airport-operated parking lots and car parking concessions revenue

Source: ACI World Airport Economics Database

Property and real estate has become the most important non-aeronautical revenue category for Asia-Pacific (44%), Middle East (28%), Europe (27%) and Africa (22%) (Chart 17). The resilience of this category during the pandemic—mostly fueled by cargo-related businesses—has been a key lifeline for many airports worldwide. North America continues to lead the world in car parking revenue. Car parking generates 36% of non-aeronautical revenue in the region, more than four times the share of Africa (8%) and Asia-Pacific (7%).

In terms of regional changes by category year over year, Africa and Asia-Pacific both struggled with a 63% reduction in retail concessions revenue from 2020 to 2021 (Table 2). Likewise, North America and Europe experienced decreases of 34% and 8% respectively in this category. The Latin America-Caribbean region had a strong year during 2021, however, with increases of 34% for retail concessions, 28% for food and beverage, and 36% for car parking due to growing demand for air travel and the removal of travel restrictions.

Chart 17:
Distribution of non-aeronautical revenue by region (% of total non-aeronautical revenue, 2021)



* Includes revenue from airport-operated parking lots and car parking concessions revenue

** Includes revenue from other unspecified concessions, revenue from other unspecified activities undertaken by an airport and other unspecified non-aeronautical activities

Source: ACI World Airport Economics Database

Table 2:
Year-over-year % change in selected non-aeronautical revenues (2021/2020)

Region	Retail concessions	Food and beverage	Car parking	Property and real estate revenue or rent	Rental car concessions
Africa	-61%	-13%	-58%	-28%	-73%
Asia-Pacific	-63%	-42%	-19%	-21%	-32%
Europe	-9%	-8%	33%	-1%	13%
Latin America-Caribbean	35%	30%	39%	0.4%	54%
Middle East	-4%	-30%	16%	17%	-53%
North America	-36%	-24%	-14%	-1%	3%

Source: ACI World 2023 Airport Key Performance Indicators

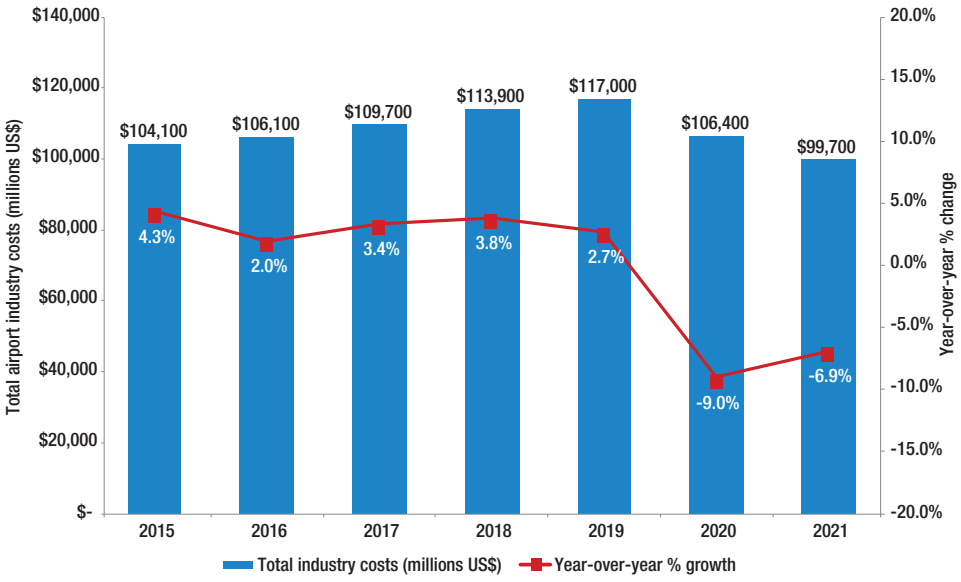
3. Airport Costs

Airports are infrastructure intensive businesses—the cost structure is characterized by prominent fixed costs. The maintenance and operation of airport components, such as runways, taxiways, aprons, parking stands and terminal buildings, necessitate high fixed costs. Above operating expenses, airports must expand and invest in sustainable solutions to respond to air transport demand.

In 2021, total airport costs were US$99.7 billion, down from US$106.4 billion in 2020 (Chart 18). After adjusting for inflation, the evolution of industry costs prior to the pandemic reveals modest growth levels over the period 2015–2019. Prior to the pandemic, airport costs grew at a slower pace than global air traffic demand. This growth in costs was broken in 2020 as airports implemented cost saving strategies in response to the COVID-19 crisis. In 2021, total airport costs decreased 6.9% while global air transport demand measured by passenger traffic increased 28.4%.

The controlled growth in costs between 2015–2019 and the decrease in costs in 2020–2021 demonstrate the sustainable cost management strategy implemented by the industry. Being infrastructure intensive and having high fixed costs does limit the ability of airports to reduce costs, however.

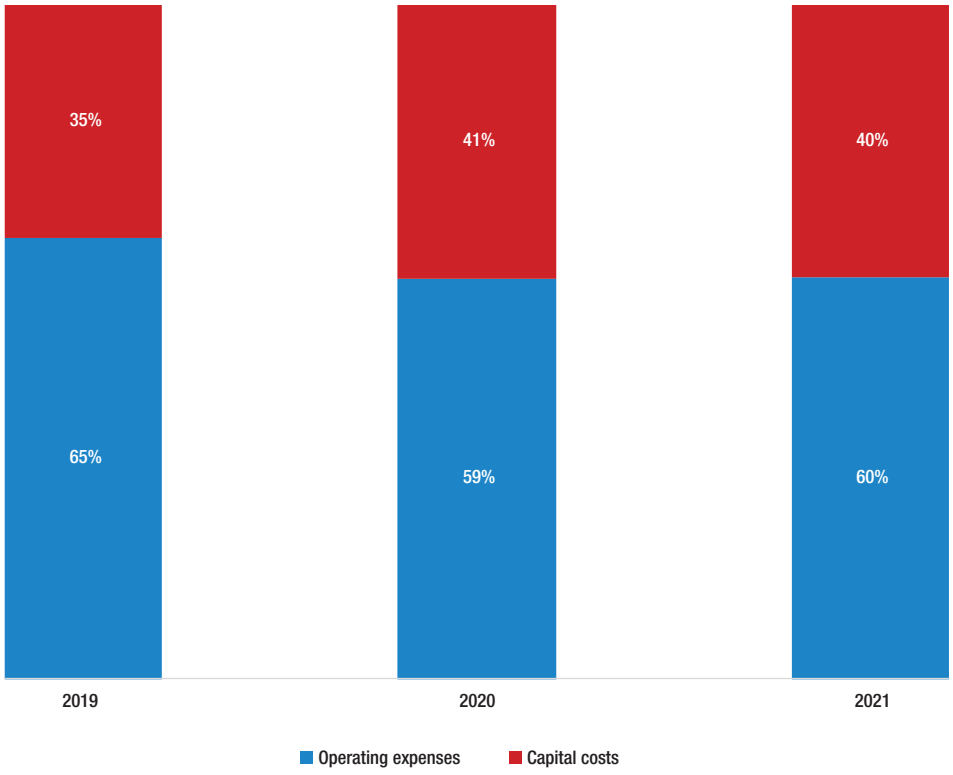
Chart 18:
Evolution of total industry costs and year-over-year % growth (million US$, 2015–2021



Source: ACI World Airport Economics Database
Note: Previous years' data was adjusted to present value according to the level of inflation. Time series represent real values with 2021 being the base year.

Total airport costs can be divided between operating expenses and capital costs. Operating expenses made up 60% of total costs in 2021, up from 59% of total costs in 2020, the remaining 40% being allocated to capital costs, down from 41% in 2020 (Chart 19). The largely fixed nature of capital costs resulted in these higher shares for 2020 and 2021 compared with 2019.

Chart 19:
Distribution of airports' total costs (2019, 2020, and 2021)

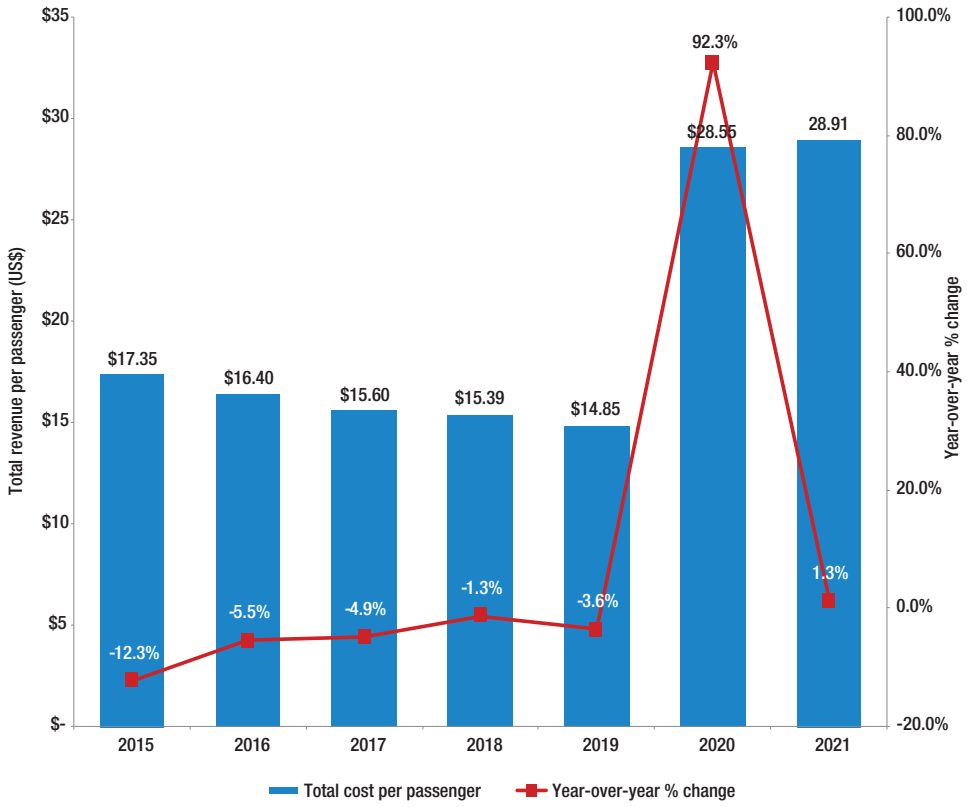


Source: ACI World Airport Economics Database

Even though total airport costs have dropped in absolute terms, costs on a per-passenger basis have increased as passenger traffic is significantly below its 2019 level.

As shown in Chart 20, the cost per passenger was steadily decreasing until 2020 and has been rising since. As passenger traffic returns, the cost per passenger should slowly return to pre-COVID levels.

Chart 20:
Evolution of total industry costs per passenger and year-over-year % growth (US$, 2015–2021)



Source: ACI World Airport Economics Database

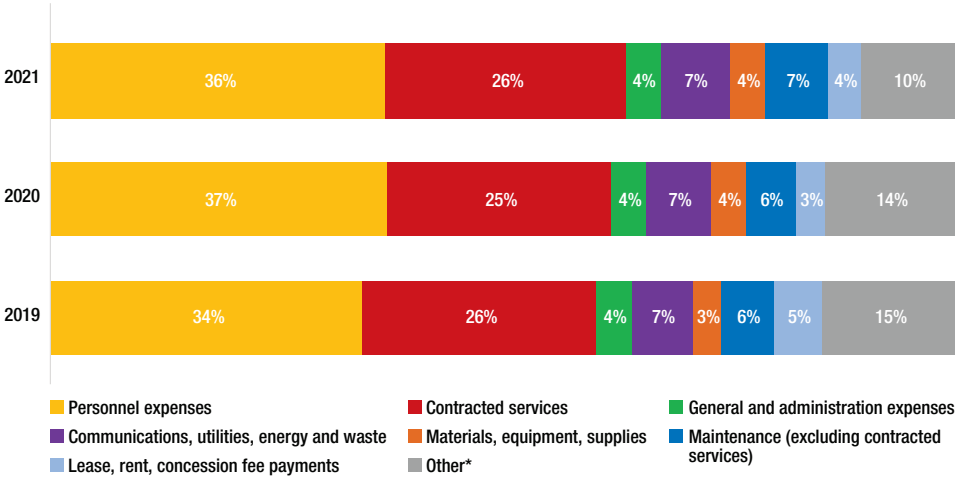
Note: Previous years' data was adjusted to present value according to the level of inflation. Time series represent real values with 2021 being the base year.

3.1 Operating costs

Personnel continue to represent the largest component of operating expenses, accounting for 36%. Contracted services, which are activities outsourced to third parties, represent the second-largest component. These services account for 26% of operating expenses (Chart 21).

The extent to which an airport chooses to operate essential services using its own employees (insourcing) or to contract services to third parties (outsourcing) inevitably affects the proportions of its costs in these two main operating expense categories. The combined share of the two labour-related cost categories—personnel expenses and contracted services—has remained by far the largest cost centre for airports, at around 62% of total operating expenses.

Chart 21:
Distribution of operating expenses (2019, 2020, and 2021)

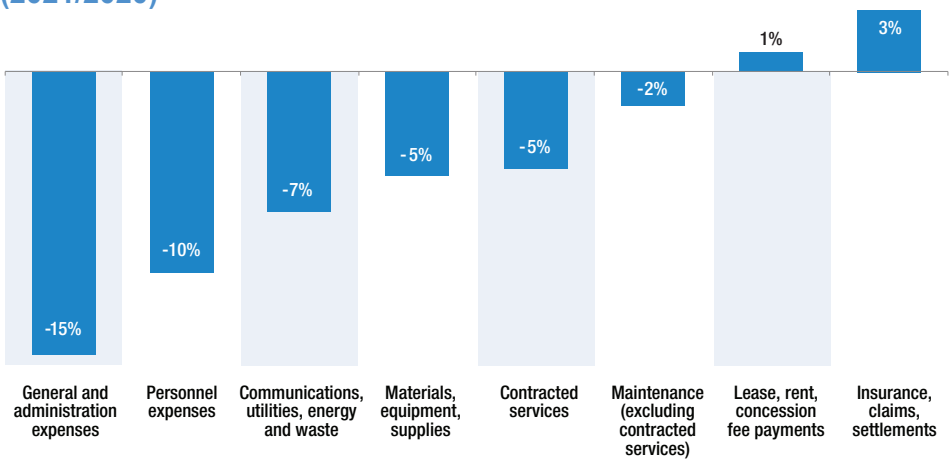


* Other category includes unidentified expenses incurred in carrying out an airport's day-to-day activities and normal business operations.

Source: ACI World Airport Economics Database

Compared with 2020, personnel expenses declined 10% (Chart 22), as many airports reduced their Full Time Equivalent (FTE) in response to the traffic decline. General and administration expenses dropped 15% while materials, equipment supplies, communications, utility, energy, waste, contracted services and maintenance decreased between 2% and 7%. Insurance, claims, and settlements increased 3%.

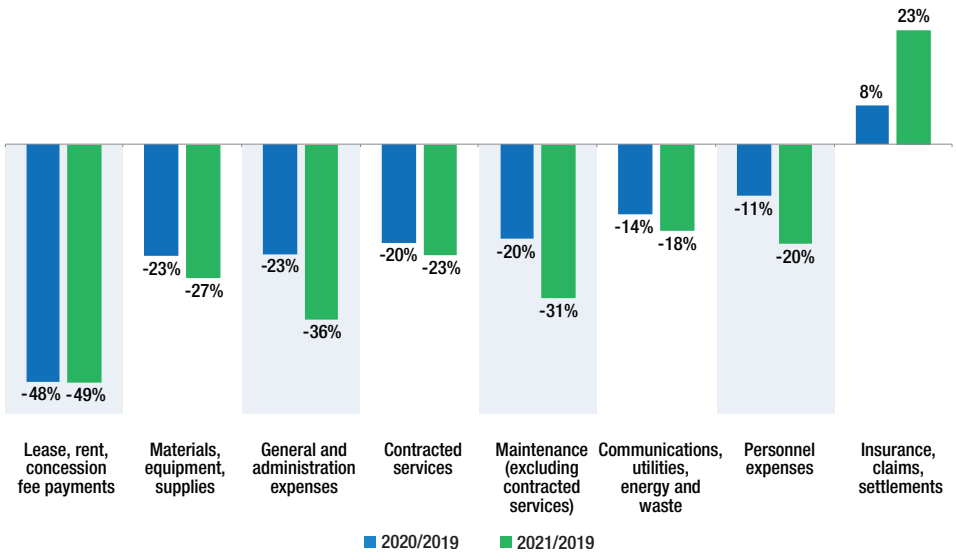
Chart 22:
Year-over-year % change in selected operating expense categories (2021/2020)



Source: ACI World 2023 Airport Key Performance Indicators

Looking at operating expenses throughout the pandemic, lease, rent and concession fee payments were low compared with 2019 as certain COVID-19 relief measures remained in place. More importantly, airports reduced costs for all categories in which they have some control (Chart 23). However, with the return of traffic, it is expected that personnel expenses, maintenance, utilities, energy, waste, and other expenses will rise due to higher utilization rates across airports.

Chart 23:
Year-over-year % change in selected operating expense categories (2020/2019 and 2021/2019)



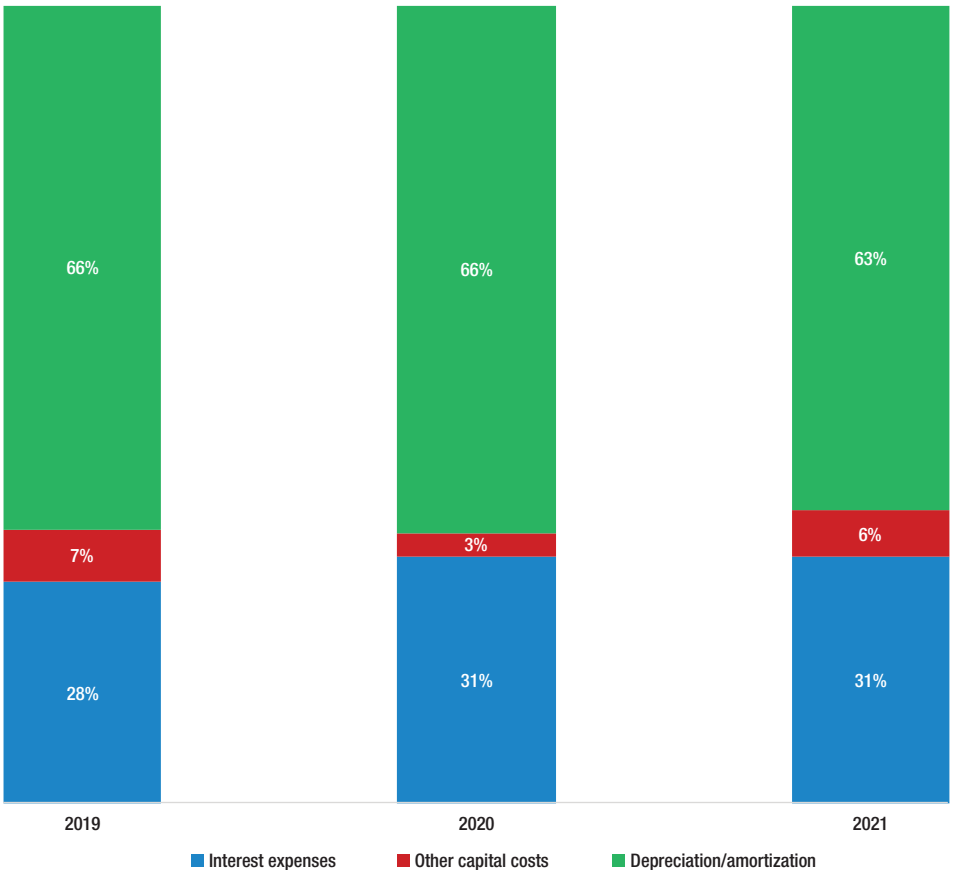
Source: ACI World Airport Economics Database

3.2 Capital costs

Capital costs have a significant impact on airports' bottom lines. They include interest on outstanding debt and depreciation on airport infrastructure. When capital costs are taken into consideration within the overall cost structure, the significant weighting of depreciation as part of capital costs relative to operating expenses is indicative of the role that fixed assets and infrastructure play in the overall accounting of airports' costs.

Depreciation, which is the cost of a fixed asset allocated over time, makes up as much as 63% of capital costs and more than one quarter of all costs and expenses incurred by a typical airport. Chart 24 shows the breakdown of capital costs for 2021, 2020 and 2019.

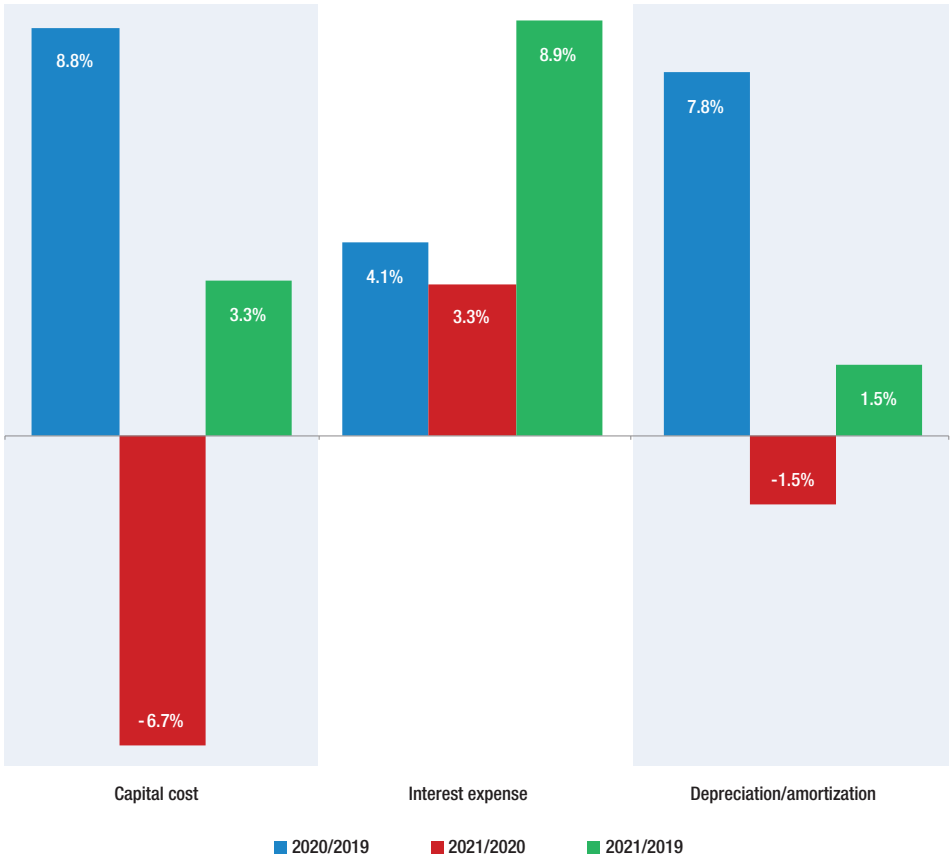
Chart 24:
Distribution of capital costs (2019, 2020, and 2021)



Source: ACI World Airport Economics Database

In 2020, capital costs rose 9% compared with 2019, driven by the increase in depreciation and other capital costs, including impairment. In 2021, capital costs decreased 7%. Nonetheless, interest expenses increased 4% in 2020, followed by 3% in 2021 as airports took on more debt to finance diverse aspects of the business. In comparison with 2019, interest expenses have increased 9% in two years. Depreciation, meanwhile, increased 2% in the same period (Chart 25).

Chart 25:
Year-over-year % change in capital costs (2020/2019, 2021/2020, 2021/2019)

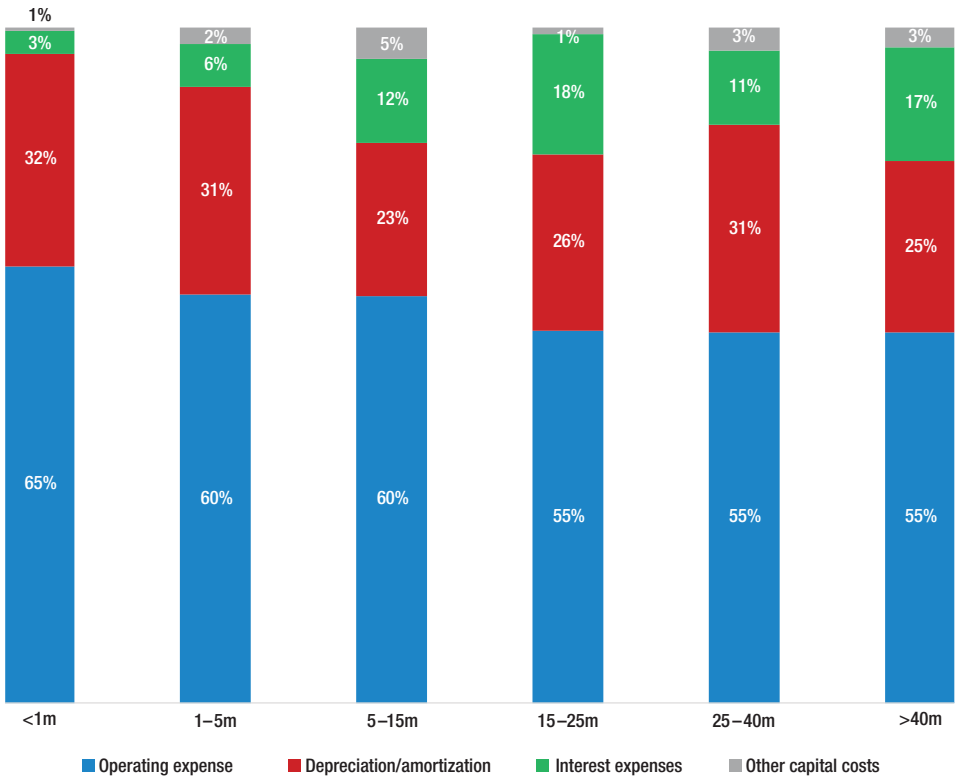


Source: ACI World Airport Economics Database

3.3 Economies of scale—cost structure by airport size

As shown in Chart 26, the fraction of total cost apportioned to depreciation tends to be greater for smaller airports. On the other hand, larger airports have higher interest expenses. Interest expense is often referred to as the cost of capital or the cost to finance certain airport activities or expansion. Airports serving larger markets often depend on bond markets and other instruments to finance or expand operations. As a result, the interest paid on those debt instruments represent a more significant proportion of capital costs. Smaller airports frequently rely on subsidies to finance their operations or financial shortfall beyond revenue.

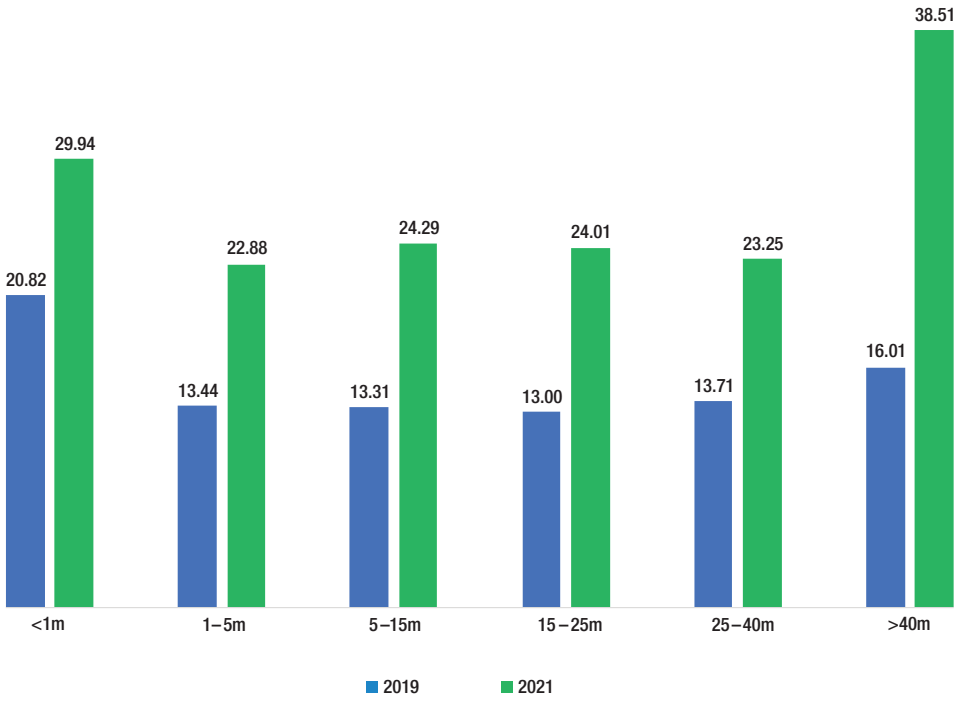
Chart 26:
Distribution of airports' total costs by airport size* (2021)



* Size categories based on 2019 passenger traffic
Source: ACI World 2023 Airport Key Performance Indicators

Airports' average total costs tend to decline as their market size expands, as fixed costs are spread over an expanding throughput. Chart 27 shows that for small airports, total cost per passenger exceeded US$20 in 2019 and is in the region of US$13–US$16 per passenger for other airports. As traffic fell away during the pandemic, larger airports found themselves having to support infrastructures meant to welcome millions of passengers with a fraction of those numbers. As shown in Chart 27, airports with over 40 million passengers in 2019 saw the largest increase in total cost per passenger with a 141% increase between 2019 and 2021.

Chart 27:
Total cost per passenger by airport size* (2019, 2021)



* Size categories based on 2019 passenger traffic

Source: ACI World 2023 Airport Key Performance Indicators

4. Airport Financial Performance

Measuring profitability is a complex task for the airport industry because of the diversity of capital structures. Though some airports are listed on stock exchanges across the globe, the highest proportion is government owned. An estimated majority (86%) of the 4,300 airports with scheduled traffic are public, in that they are owned by a government or governmental entity. The ACI inventory of privatized airports (2018) reveals that over 650 commercial airports have private sector participation. Although these account for an estimated 14% of airports worldwide, they handle over 40% of global traffic. Consequently, the measurement of airport financial performance and the subsequent interpretation of economic indicators must consider institutional objectives, in both national and local contexts. Some airports are geared toward maximizing returns for investors or shareholders, but others are mandated purely to recover the costs they incur in providing airport services and infrastructure.

Any discussion about airport revenue and profitability would be incomplete without considering the role played by economic regulation. An airport's capacity to generate revenue is a function of throughput and its market characteristics, but this capacity varies depending on the jurisdiction in which an airport operates. Not only do airport managers face multifaceted challenges in the areas of safety, security and the environment but also they must comply with economic regulations that govern the pricing of airport services. Airport economic regulations governing revenues, particularly those relating to airport charges, exert a direct impact on airport financial performance and profitability.

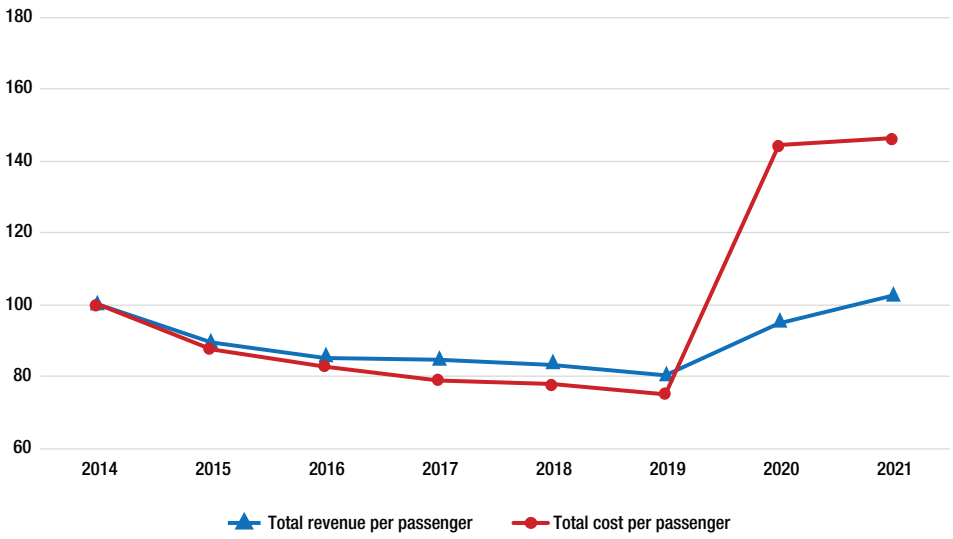
As traffic declined due to the COVID-19 pandemic, airports' ability to collect those charges decreased proportionally. With less flexibility in operating expenditures, coupled with capital costs that are largely fixed, the crisis posed an important challenge for airport operators.

Airport operators have a strong incentive to spread out costs by expanding traffic to achieve economies of scale. 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.

With restrictions on travel and the collapse in air transport demand, airport operators did not have sufficient traffic to drive down per traffic unit costs and achieve economies of scale, or to generate significant aeronautical or commercial revenues to cover costs and to service debt levels.

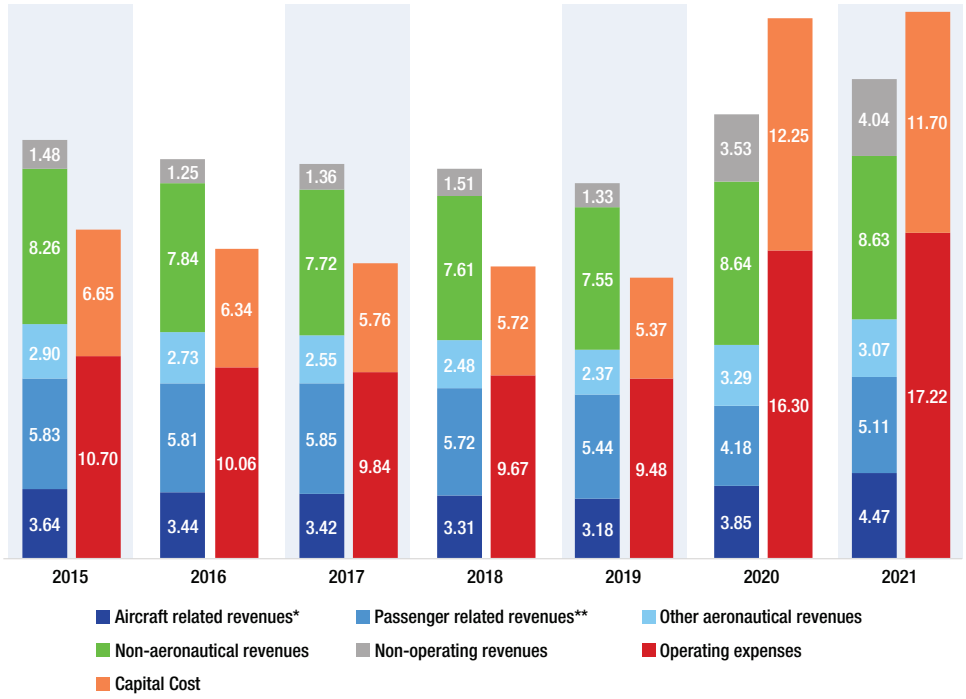
Historically, prior to the pandemic unit revenues and unit costs would move in tandem with each other. Despite the decrease in total costs, in 2020 and 2021, the average cost per passenger has exceeded the average revenue per passenger (Charts 28 and 29). That is, unit costs far exceeded unit revenues. Even so, many airport operators provided relief measures to their tenants and users of infrastructure despite the shortfall. A survey of ACI member airports on their COVID-19 response in terms of aeronautical charges indicates that a vast majority of airports (68%) have implemented some form of discount or incentive to their charges specifically to address pandemic problems and the recovery.

Chart 28:
Evolution of unit revenues costs per passengers (2014–2021, indexed 2014=100)



Source: ACI World Airport Economics Database

Chart 29:
Evolution of aeronautical and non-aeronautical revenue per passenger vs. operating expenses and capital costs per passenger (US$, 2015–2021)



* Landing charges, parking charges, boarding bridge charges, noise and environmental charges, navaid charges and all other aircraft-related charges

** Passenger charges (including AIF and PFC charges), security charges, transfer/transit charges and all other passenger-related charges

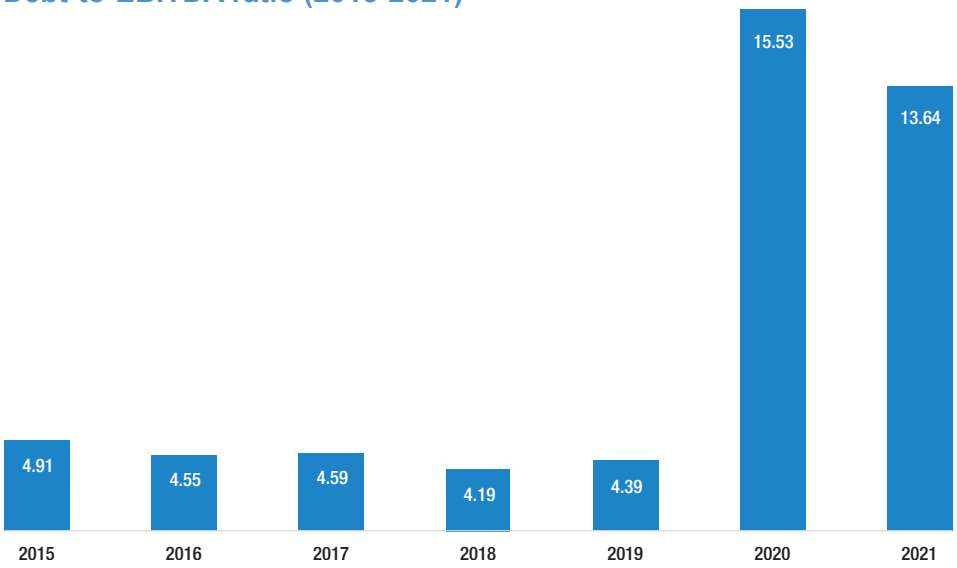
Source: ACI World Airport Economics Database

The impact of the COVID-19 outbreak on airport traffic has caused investors to re-evaluate the risk of airports. The future of airport businesses and the timing and extent of traffic recovery remain uncertain. Changes in the structure and composition of travel demand (e.g., slower and possibly permanently reduced business demand) and shifts in market structure and general economic conditions must also be considered.

As a result, many airports have had their credit ratings downgraded. There is evidence that asset betas (a measure of market risk) of listed airport companies show a marked increase since the start of the pandemic.

Acceptable debt levels vary from one jurisdiction to the next due to differing ownership, financing structures and legal considerations. Global debt-to-EBIDTA (earnings before interest, tax, depreciation and amortization) levels have consistently oscillated in the realm of 5:1 for many years, though a declining trend was observed in the years prior to the pandemic. But the revenue shortfall during the pandemic has meant that debt-to-EBIDTA ratios have exceeded 13:1, requiring airports to request debt relief or to refinance existing debt at higher costs (Chart 30).

Chart 30:
Debt-to-EBITDA ratio (2015-2021)



Source: ACI World Airport Economics Database

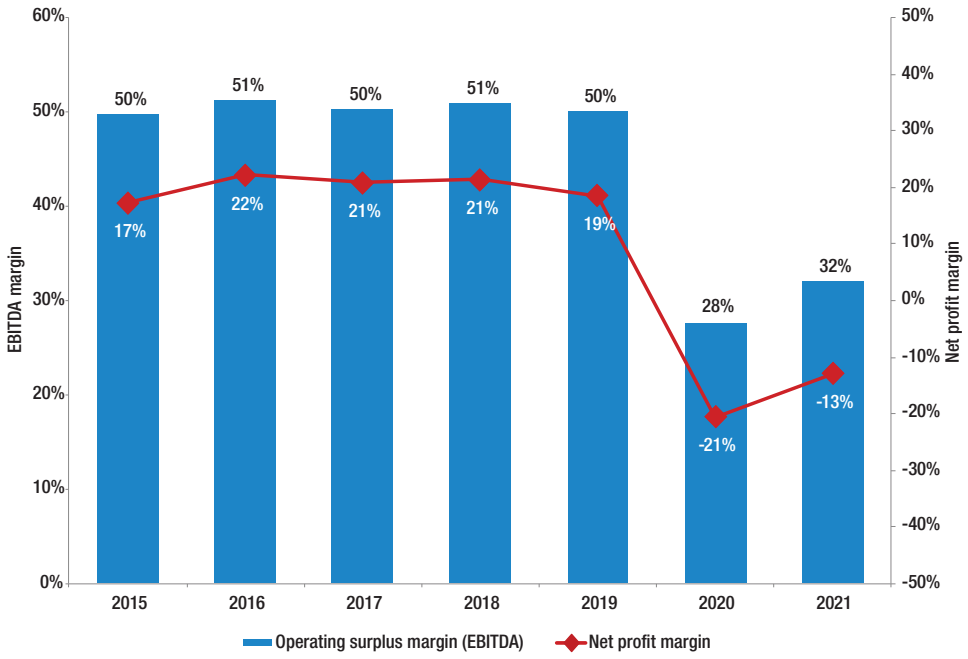
4.1 Margins: operating surplus and net profit

An airport's operating surplus (EBITDA) serves as a measure for investors and airport managers to assess the overall financial performance of an airport company.

Additionally, the net profit (or loss) is defined as the difference between total revenue (aeronautical, non-aeronautical and non-operating revenues) and total costs (operating expenses, capital costs and taxes). Because this figure is the result of an airport's operations for any given period, it effectively summarizes in a single measure the management's ability to run the business.

In 2021, the operating surplus of the airport industry was 32%, for a net profit margin of -13% (up from -21% in 2020, but still down 18 percentage points compared with 2019) (Chart 31).

Chart 31:
Operating surplus and net profit margins (2015–2021)



Source: ACI World Airport Economics Database

4.2 Return on invested capital

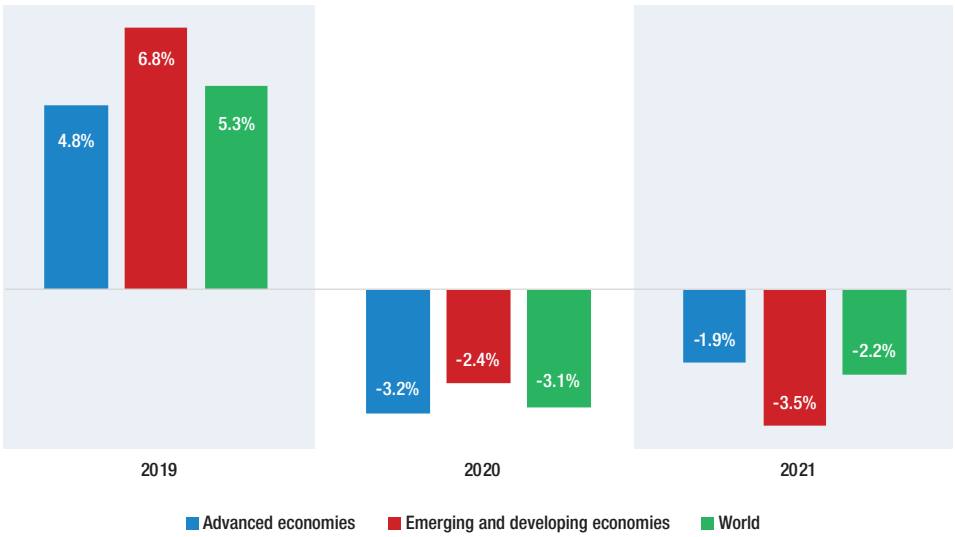
Return on invested capital (ROIC) is a measure that combines almost every element of an airport's income statement and balance sheet. It is a robust measure of profitability, because within a single measure not only does it consider the effective management of total revenues and total costs in a financial year but also it takes invested capital into account. From an investor's perspective, ROIC measures the payment that both debt and equity holders would receive by providing their capital. In the case of equity holders, ROIC is the return for bearing the equity risk. When examined through the lens of this measure, actual returns are considerably lower across the industry compared with net profit margins.

Because of the dramatic drop in traffic and aeronautical and non-aeronautical revenues during the COVID-19 crisis, it could take years to restore the financial health of individual airports and the sector in general. Because airports have become more vulnerable, their risk profile has deteriorated, resulting in a higher cost of capital. Debt or equity investors will factor in a risk premium to finance airport operations and capital expenditures (CAPEX) to the same degree as before. They will require the risk gap to be bridged via higher retained earnings or equity capital or will charge higher lending rates.

Previous studies have pointed to the global airport industry weighted average cost of capital (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 but a few dimensions.

Overall, the industry's ROIC showed little variability prior to the pandemic, 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 breaking even over this period. However, following the collapse in traffic in 2020, a huge wedge exists between the industry's ROIC, which is negative, and the increasing WACC. Globally, the adverse effect of the pandemic brought the global ROIC into negative territory at -2.2% for the industry in 2021. The difference in ROIC between airports in advanced economies and airports located in emerging markets has oscillated since the beginning of the pandemic. In normal times, airports in emerging and developing economies were reporting higher returns than airports in advanced economies. In 2021, airports in advanced economies recorded lower declines in ROIC than airports in emerging and developing economies as traffic recovery took hold in North America and Europe while Asia-Pacific lagged due to travel restrictions (Chart 32).

Chart 32:
Return on invested capital*—advanced versus emerging economies (2019, 2020, and 2021)



* Return on invested capital excluding non-operating income
Source: ACI World 2023 Airport Key Performance Indicators

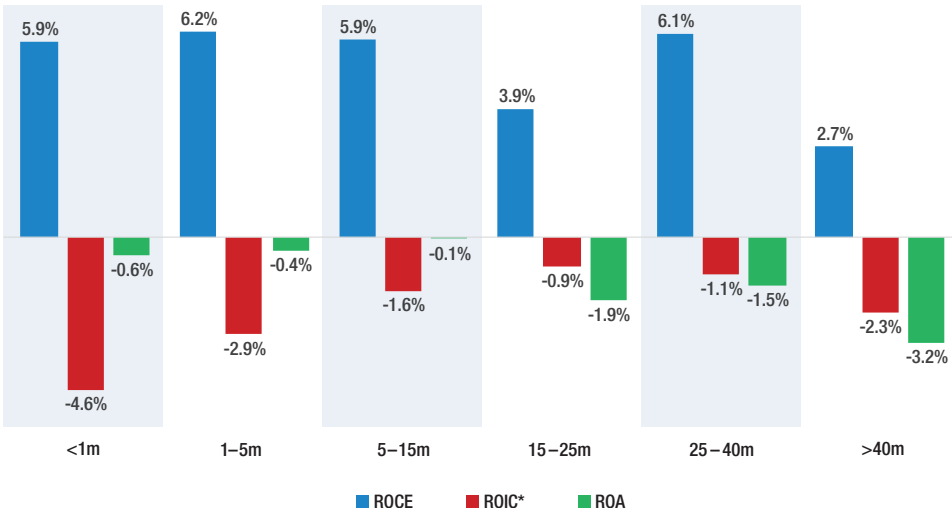
4.3 Comparative returns

Although ROIC addresses the relative return from net profits before interest as a proportion of invested capital (equity and debt), return on assets (ROA) is used to analyze net profits relative to total assets. Both measures indicate a company's ability to generate a final net profit (after taxes) for every dollar invested, but ROA does not consider a company's liabilities, which are subtracted from its total assets in calculating ROIC.

Return on capital employed (ROCE) addresses the return on EBITDA. ROCE examines an airport's ability to generate returns from operating activities independent of taxes and capital costs. The principal difference between ROA and ROCE lies in the denominator. ROA uses total assets as its denominator and ROCE is calculated using employed capital—the sum of shareholders' equity and long-term debt finance—as the denominator.

Chart 33 illustrates the three measures described above by airport size. Returns vary by airport throughput and size category. Although ROCE remained positive for all airport size categories in 2021, the pandemic meant an 8.7 percentage points reduction in airports' ROCE compared with 2019. Likewise, drastic changes and declines were recorded for each airport size category in terms of ROA and ROIC. Better performance for all three measures of return can be seen in the two categories of airports that have 1-5m and 5-15m passengers per annum. This is partly due to their ability to recoup a certain volume of flights following the crisis.

Chart 33: ROA, ROCE, and ROIC* by airport size** (2021)



* Return on invested capital excluding non-operating income

** Size categories based on 2019 passenger traffic

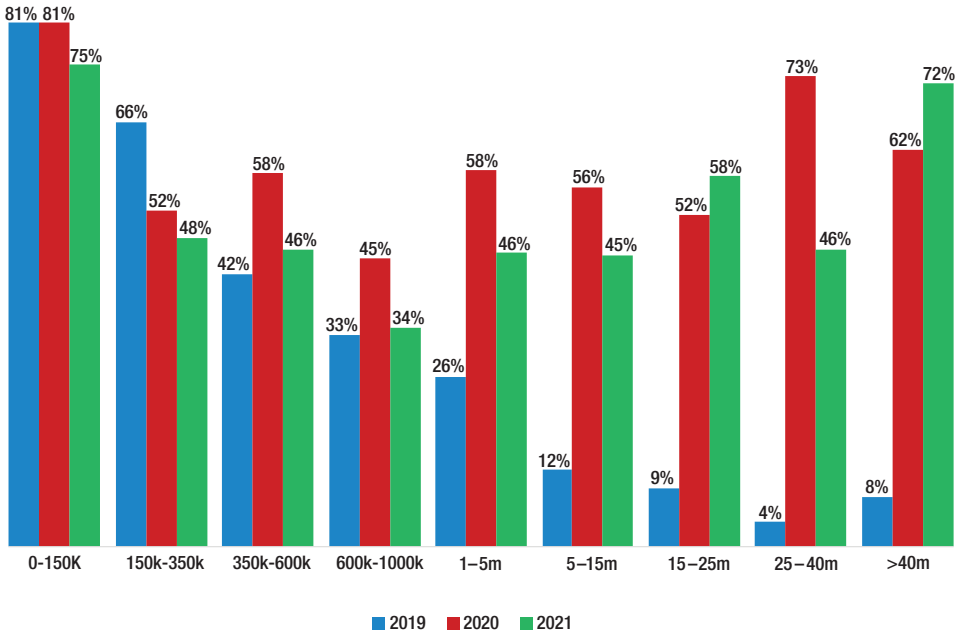
Source: ACI World 2023 Airport Key Performance Indicators

4.4 Airport financial performance and airport size

Airports are asset-intensive businesses that require large minimum investments just to accommodate a single aircraft landing. They must achieve a critical mass before they can start recovering their investments in infrastructure and operating costs.

Prior to the pandemic, airport financial statements show that a significant number of individual airports were in the red despite the airport industry as a whole being profitable. The latest estimates, based on the pre-pandemic realities, suggest that as many as 68% of the world's airports operated at a net loss. Most of these airports are small, each handling less than one million passengers per annum. In pre-pandemic times, the industry's overall earning propensity and profitability was concentrated among airports with higher passenger throughput. As the crisis advanced, however, even airports with large traffic volumes started operating at a loss. As an example, in the over 40m passengers per annum category, 72% of airports recorded a loss during 2021 (Chart 34).

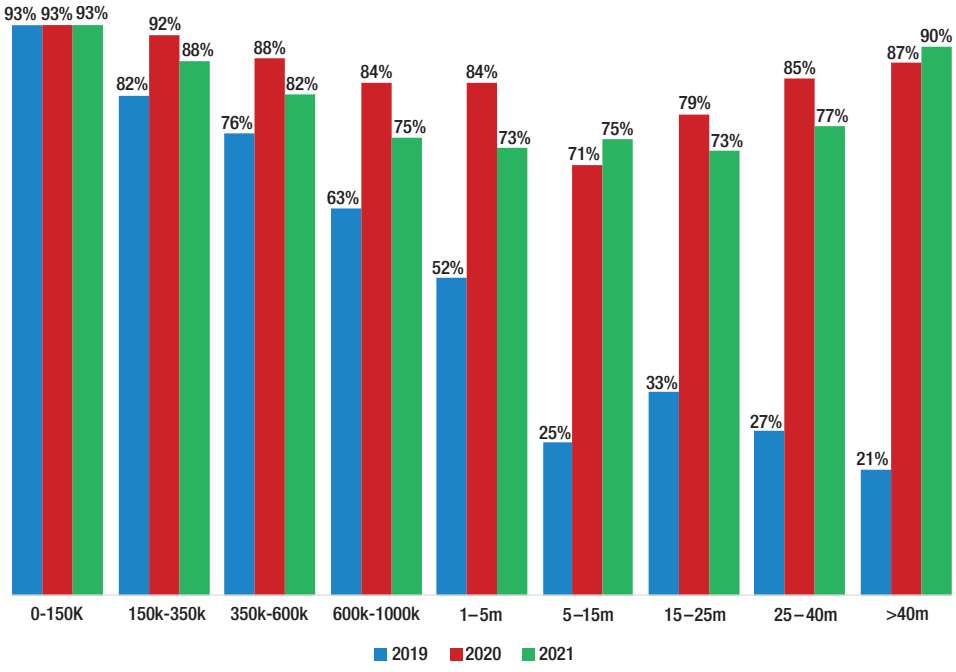
Chart 34:
Share of loss-making airports by airport size* (2019, 2020, and 2021)



* Size categories based on 2019 passenger traffic
Source: ACI World Airport Economics Database

Chart 35 presents the share of loss-making airports excluding non-operating revenues, which is made up of interest income, subsidies, grants and asset divestments. For many smaller airports below five million passengers per annum, grants and subsidies make up a significant proportion of revenues to ensure that they remain economically viable. On a broader scale across all size categories, this underscores the importance of non-operating income for many airports as cashflows from aeronautical and non-aeronautical revenues are insufficient to cover costs and break even.

Chart 35:
Share of loss-making airports by airport size* excluding non-operating revenues (2019, 2020, and 2021)



* Size categories based on 2019 passenger traffic
Source: ACI World Airport Economics Database

5. Look Ahead

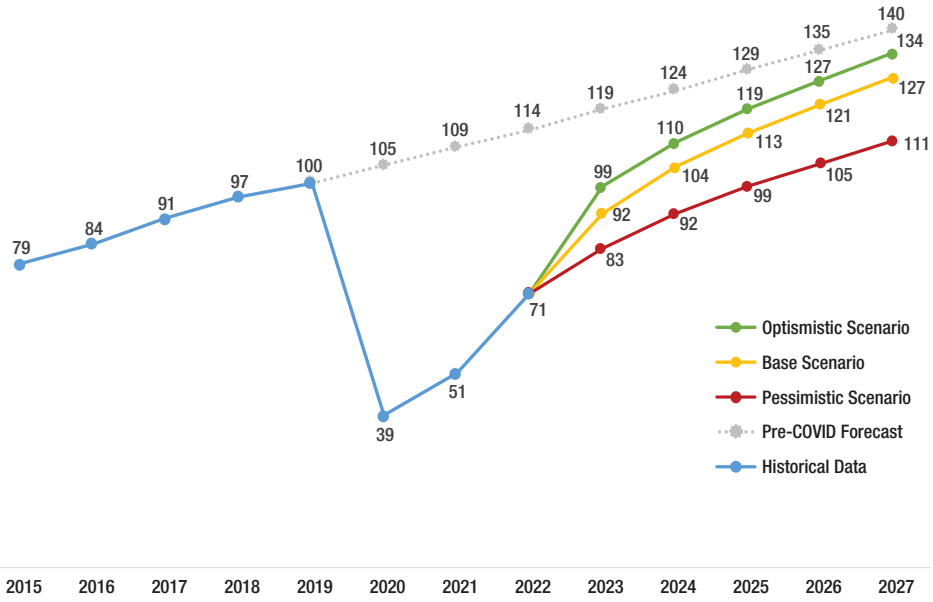
Global passenger traffic is forecast to reach 92% of 2019 levels in 2023 (Chart 36). Although demand for leisure travel will likely remain strong in the first half of 2023, growth levels may be more subdued in the latter half of 2023 as the effects of higher interest rates are felt across economies. COVID-19 surges and its variants continue to pose a challenge for seamless international travel, especially amid knee-jerk reactions by a number of governments. This was especially apparent when testing requirements for travellers from China were resurrected. Despite headwinds, the opening of Chinese aviation markets represents positive momentum on 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 is mainly driven by domestic travel. International travel is forecast to recover by 2025.

From a regional perspective, recovery patterns remain uneven in 2023. Africa, with its continued reliance on international travel, continues to be vulnerable to external shocks. That said, the continent's full recovery is expected by 2024. The Asia-Pacific markets continue to make a comeback, especially with the opening of China, although the re-imposition of travel restrictions may represent a near-term challenge. Although Asia-Pacific is enjoying a boom in travel with the removal of most restrictions, it lags other markets in terms of reaching 2019 volumes.

The war in Ukraine seems unlikely to end in 2023 and the economic impact on air transport will continue to be felt not only in European markets but also globally. In 2022, hubs in Southeast Europe and the Middle East experienced the positive substitution effect resulting from closed airspace and flight bans with Russia. The diversion of traffic toward these hubs has boosted their international traffic numbers.

The Americas is home to several markets where passenger numbers have already reached 2019 levels. In fact, the sizable markets of Colombia and Mexico have surpassed 2019 traffic numbers. Overall, despite the prospect of a recession later in the year, North American markets are expected to come close to 2019 numbers by the end of 2023 whereas markets in Latin America and the Caribbean have a good chance of surpassing 2019 levels in 2023.

Chart 36:
Medium-term global passenger traffic projection (indexed, 2019 = 100, as of February 2023)



Source: ACI World Annual Airport Traffic Forecasts

ANNEX
Participating airports

Africa

Congo	AERCO - Aéroports du Congo	Oyo (OLL) Pointe Noire (PNR) Brazzaville (BZV)
Egypt	Egyptian Holding Company for Airport and Air Navigation (EHCAAN)	Sharm El Sheikh (SSH) Hurghada (HRG) Cairo (CAI) Assiut (ATZ) Aswan (ASW) Borg El Arab (HBE) Luxor (LXR) Sohag (HMB)
Ghana	Ghana Airports Company Ltd	Accra (ACC)
Kenya	Kenya Airports Authority (KAA)	Eldoret (EDL) Mombasa (MBA) Nairobi (NBO)
Madagascar	Aéroports de Madagascar - ADEMA	Mahajanga (MJN) Toamasina (TMM)
	Ravinala Airports	Antananarivo (TRN) Nosy Be (NOS)
Mauritius	Airports of Mauritius Co. Ltd.	Plaine Magnien (MRU)
Morocco	Office National des Aéroports (ONDA)	Agadir (AGA) Al Hoceima (AHU) Ben Slimane (GMD) Beni Mellal (BEM) Bouarfa (UAR) Casablanca (CMN) Dakhla (VIL) Errachidia (ERH) Essaouira (ESU) Fez (FEZ) Goulimime (GLN) Ifrane (GMFI) Laayoune (EUN) Marrakech (RAK)

		Nador (NDR)
		Ouarzazate (OZZ)
		Oujda (OUD)
		Rabat (RBA)
		Tan Tan (TTA)
		Tanger (TNG)
		Tetouan (TTU)
		Zagora (OZG)
Nigeria	Federal Airports Authority of Nigeria (FAAN)	Enugu (ENU)
		Kano (KAN)
		Lagos (LOS)
		Port Harcourt (PHC)
		Abuja (ABV)
Senegal	Limak-Aibd-Summa (LAS)	Diass (DSS)
Seychelles	Seychelles Civil Aviation Authority (SCAA)	Victoria (SEZ)
South Africa	Airports Company South Africa (ACSA)	Cape Town (CPT)
		Durban (DUR)
		East London (ELS)
		George (GRJ)
		Johannesburg (JNB)
		Kimberley (KIM)
		Port Elizabeth (PLZ)
		Upington (UTN)
		Bloemfontein (BFN)
Tunisia	TAV Tunisie S.A.	Monastir (MIR)
		Enfidha (NBE)
Zambia	Zambia Airports Corporation Limited	Livingstone (LVI)
		Lusaka (LUN)
		Mfuwe (MFU)
		Ndola (NLA)
Asia-Pacific		
Australia	Adelaide Airport Limited	Adelaide (ADL)*
	Australia Pacific Airports Corporation Limited	Melbourne (MEL)*
	Brisbane Airport Corporation	Brisbane (BNE)*
	Perth Airport Pty Ltd	Perth (PER)*
	Queensland Airports Limited	Gold Coast (OOL)*
		Longreach (LRE)*

		Mount Isa (ISA)*
		Townsville (TSV)*
	Sydney Airport	Sydney (SYD)*
Cambodia (Kingdom of Cambodia)	Cambodia Airports	Siem Reap (REP)
		Phnom Penh (PNH)
		Sihanouk Ville (KOS)
China (People's Republic of China)	Beijing Capital International Airport Co., Ltd.	Beijing (PEK)
	Chongqing Jiangbei International Airport	Chongqing (CKG)*
	Eastern Airports Co., Ltd.	Changzhou (CZX)*
		Huaian (HIA)*
		Lianyungang (LYG)*
		Nanjing (NKG)*
		Taizhou (YTY)*
		Xuzhou (XUZ)*
		Yancheng (YNZ)*
	Guangdong Airport Authority	Guangzhou (CAN)
	Gansu Airport Group	Lanzhou (LHW)*
		Jiayuguan (JGN)*
		Dunhuang (DNH)*
		Qingyang (IQN)*
		Jinchang (JIC)*
		Zhangye (YZY)*
		Longnan (LNL)*
	Guangxi Airport Group	Baise (AEB)*
		Beihai (BHY)*
		Guilin (KWL)*
		Hechi (HCJ)*
		Liuzhou (LZH)*
		Nanning (NNG)*
		Wuzhou (WUZ)*
	Haikou Meilan International Airport	Haikou (HAK)*
	Hangzhou Xiaoshan International Airport Co. Ltd.	Hangzhou (HGH)
	Shanghai Airport Authority	Shanghai (PVG)*
		Shanghai (SHA)*
	Shenzhen Airport Company Ltd.	Shenzhen (SZX)*
	Sichuan Province Airport Group Co., Ltd.	Chengdu (CTU)*
		Dazhou (DAX)*
		Guangyuan (GYS)*
		Panzhihua (PZI)*

		Xichang (XIC)*
		Chengdu (TFU)*
	Wuxi Sunan International Airport Group Co., Ltd.	Wuxi (WUX)*
	Zhejiang Provincial Airport Group	Ningbo (NGB)*
		Quzhou (JUZ)*
		Taizhou (HYN)*
		Wenzhou (WNZ)*
		Yiwu (YIW)*
		Zhoushan (HSN)*
Chinese Taipei	Kaohsiung International Airport, CAA	Kaohsiung (KHH)
	Taoyuan International Airport Corporation Ltd.	Taipei (TPE)
Cook Islands	Airport Authority Cook Islands	Aitutaki (AIT)
		Rarotonga (RAR)
Fiji	Fiji Airports	Nadi (NAN)
		Suva (SUV)
French Polynesia	ADT - Aéroport de Tahiti	Papeete (PPT)
Guam	A.B. Won Pat International Airport Authority, Guam (GIAA)	Hagatña (GUM)
Hong Kong, China	Airport Authority Hong Kong	Hong Kong (HKG)
India	Airports Authority of India	Madras (MAA)
		Calcutta (CCU)
		New Delhi (137 airports) *
	Bangalore International Airport Limited	Bangalore (BLR)
	Cochin International Airport Limited	Cochin (COK)Limited
	Delhi International Airport (P) Ltd	New Delhi (DEL)
	GMR Hyderabad International Airport Limited	Hyderabad (HYD)
Indonesia	PT Angkasa Pura I	Ambon (AMQ)*
		Bajarmasin (BDJ)*
		Balikpapan (BPN)*
		Biak (BIK)*
		Denpasar (DPS)*
		Kupang (KOE)*
		Makassar (UPG)*
		Manado (MDC)*
		Mataram (LOP)*
		Sedati (SUB)*
		Semarang (SRG)*

	PT (Persero) Angkasa Pura II	Surakarta (SOC)* Yogyakarta (JOG)* Yogyakarta (YIA)* Bandung (BDO) Banyuwangi (BWX) Bengkulu (BKS) Jakarta (CGK) Jakarta (HLP) Lampung (TKG) Majalengka (KJT) Medan (KNO) Padang (PDG) Palangkaraya (PKY) Palembang (PLM) Pangkal Pinang (PGK) Pekanbaru (PKU) Pontianak (PNK) Tanjung Pinang (TNJ) Banda Aceh (BTJ) Jambi (DJB) Siborong-Borong (DTB) Purbalingga (PWL) Tanjung Pandan (TJQ)
Japan	Japan Airport Terminal Co., Ltd. Kansai Airports	Tokyo (HND) Kobe (UKB) Osaka (ITM) Osaka (KIX)
Korea (Rep of Korea)	Narita International Airport Corporation Incheon International Airport Corporation Korea Airports Corporation	Tokyo (NRT) Incheon (ICN) Busan (PUS) Jeju (CJU) Seoul (GMP)
Malaysia	Malaysia Airports Holdings Berhad	Alor Setar (AOR) Ba'kelalan (BKM) Bario (BBN) Bintulu (BTU) Ipoh (IPH) Kota Bharu (KBR) Kota Kinabalu (BKI)

		Kuala Lumpur (KUL)
		Kuala Terengganu (TGG)
		Kuantan (KUA)
		Kuching (KCH)
		Kudat (KUD)
		Labuan (LBU)
		Lahad Batu (LDU)
		Langkawi (LGK)
		Lawas (LWY)
		Limbang (LMN)
		Long Akah (LKH)
		Long Banga (LBP)
		Long Lellang (LGL)
		Long Seridan (ODN)
		Malacca (MKZ)
		Marudi (MUR)
		Miri (MYY)
		Mukah (MKM)
		Mulu (MZV)
		Pangkor (PKG)
		Penang (PEN)
		Redang (RDN)
		Sandakan (SDK)
		Sibu (SBW)
		Subang (SZB)
		Tawau (TWU)
		Tioman (TOD)
Nepal	Tribhuvan International Airport Civil Aviation Office, Kathmandu, Nepal	Kathmandu (KTM)
New Caledonia	Chambre de commerce et d'industrie de Nouvelle-Calédonie	Noumea (NOU)
New Zealand	Auckland International Airport Ltd.	Auckland (AKL)
	Christchurch International Airport Ltd.	Christchurch (CHC)*
	Dunedin International Airport Ltd.	Dunedin (DUD)
	Hawke's Bay Airport Ltd.	Hawke's Bay (NPE)*
	Wellington International Airport Ltd.	Wellington (WLG)*
	Queenstown Airport Corporation Ltd.	Queenstown (ZQN)*
		Wānaka (WKA)*
Northern Mariana Islands	Commonwealth Ports Authority	Saipan (SPN)**

Pakistan	Sialkot International Airport Ltd.	Sialkot (SKT)*
Philippines	Manila International Airport Authority	Manila (MNL)*
Singapore	Changi Airport Group (Singapore) Pte Ltd	Singapore (SIN)
	Sri Lanka Airport & Aviation Services (Sri Lanka) Limited	Colombo (CMB)
Thailand	Airports of Thailand Public Co. Ltd.	Bangkok (DMK)
		Chiang Mai (CNX)
		Chiang Rai (CEI)
		Hat Yai (HDY)
		Phuket (HKT)
		Bangkok (BKK)
Vietnam	Airports Corporation of Vietnam	Ban Me Thuot (BMV)*
		Ca Mau (CAH)*
		Cantho (VCA)*
		Con Dao (VCS)*
		Da Nang (DAD)*
		Dalat (DLI)*
		Dien Bien Phu (DIN)*
		Dong Hoi (VDH)*
		Haiphong (HPH)*
		Hanoi (HAN)*
		Ho Chi Minh City (SGN)*
		Hue (HUI)*
		Nha Trang (CXR)*
		Phuquoc (PQC)*
		Pleiku (PXU)*
		Qui Nhon (UIH)*
		Rach Gia (VKG)*
		Tamky (VCL)*
		Thanh Hoe (THD)*
		Tuy Hoa (TBB)*
		Vinh (VII)*

Europe

Albania	Tirana International Airport SHPK	Tirana (TIA)
Austria	Kärntner Flughafen Betriebsgesellschaft m. b. H.	Klagenfurt (KLU)
	Flughafen Graz Betriebs GmbH	Graz (GRZ)
	Flughafen Wien AG	Vienna (VIE)
	Salzburger Flughafen GmbH	Salzburg (SZG)

Belgium	Brussels Airport Company nv	Brussels (BRU)
	Brussels South Charleroi Airport SA	Charleroi (CRL)
	Liège Airport SA	Liege (LGG)
Bosnia & Herzegovina	Sarajevo International Airport	Sarajevo (SJJ)
Bulgaria	Fraport Twin Star Airport Management AD	Bourgas (BOJ)
		Varna (VAR)
	Sofia International Airport EAD	Sofia (SOF)
Croatia	Dubrovnik Airport Ltd	Dubrovnik (DBV)
	Osijek Airport Ltd	Osijek (OSI)
	Split Airport Ltd	Split (SPU)
	Zadar Airport Ltd	Zadar (ZAD)
	Zagreb Airport Ltd	Zagreb (ZAG)
Cyprus	Hermes Airports Ltd	Paphos (PFO)
		Larnaca (LCA)
Czech Republic	LETISTE BRNO a.s.	Brno (BRQ)
	Prague Airport	Prague (PRG)
Denmark	Københavns Lufthavne A/S	Copenhagen (CPH)
Estonia	Tallinn Airport Ltd	Tallinn (TLL)
Finland	FINAVIA Corporation	Helsinki (HEL)
France	ADP - Aéroports de Paris	Paris (CDG)
		Paris (ORY)
	Aéroport de Strasbourg-Entzheim S.A.	Strasbourg (SXB)
	CCI de Bastia et de la Haute-Corse	Bastia (BIA)
	CCI de La Rochelle	La Rochelle (LRH)
	CCI de Pau	Pau (PUF)
	SA Aéroport Marseille-Provence	Marseille (MRS)
	SA Toulouse-Blagnac	Toulouse (TLS)
	Syndicat Mixte de l'Aérodrome Biarritz-Anglet-Bayonne	Biarritz (BIQ)
	VINCI Airports	Nantes (NTE)
Georgia	TAV Airports Holding Co.	Tbilisi (TBS)
		Batumi (BUS)
Germany	Flughafen Berlin-Brandenburg GmbH	Berlin (BER)
	Flughafen Bremen GmbH	Bremen (BRE)
	Flughafen Düsseldorf GmbH	Düsseldorf (DUS)
	Flughafen Hamburg GmbH	Hamburg (HAM)
	Flughafen Köln/Bonn GmbH	Cologne (CGN)
	Flughafen München GmbH	Munich (MUC)

	Flughafen Stuttgart GmbH	Stuttgart (STR)
	Fraport AG	Frankfurt (FRA)
Greece	Athens International Airport S.A.	Athens (ATH)
	Fraport Greece - Regional Airports of Greece	Chania (CHQ)
		Kavala (KVA)
		Kefallinia (EFL)
		Kerkyra (CFU)
		Kos (KGS)
		Mikonos (JMK)
		Mytilene (MJT)
		Preveza (PVK)
		Rhodes (RHO)
		Samos (SMI)
		Santorini/Thira (JTR)
		Skiathos (JSI)
		Thessaloniki (SKG)
		Zakynthos Island (ZTH)
	Hellenic Civil Aviation Authority (HCAA)	Alexandroupolis (AXD)
		Araxos/Patras (GPA)
		Astypalaia (JTY)
		Chios (JKH)
		Ikaria (JIK)
		Ioannina (IOA)
		Kalamata (KLX)
		Kalymnos (JKL)
		Karpathos (AOK)
		Kasos (KSJ)
		Kastelorizo (KZS)
		Kastoria (KSO)
		Kithira (KIT)
		Kozani (KZI)
		Leros (LRS)
		Limnos (LXS)
		Milos (MLO)
		Naxos (JNX)
		Paros (PAS)
		Sitia (JSH)
		Skiros (SKU)
		Syros Island (JSY)

		Volos (VOL)
Hungary	Budapest Airport Zrt.	Budapest (BUD)
Iceland	Isavia - Keflavik Airport	Keflavik (KEF)
Ireland	Dublin Airport Authority	Dublin (DUB)
		Cork (ORK)
	Shannon Group plc	Shannon (SNN)
Italy	ADR S.p.A.	Rome (CIA)
		Rome (FCO)
	Aeroporto FVG S.p.A.	Trieste (TRS)
	Aeroporto G. Marconi di Bologna S.p.A.	Bologna (BLQ)
	GESAC S.p.A.	Naples (NAP)
	GESAP S.p.A.	Palermo (PMO)
	SACBO S.p.A.	Milan (BGY)
	Sagat S.p.A.	Turin (TRN)
	So.G.Aer. S.p.A.	Cagliari (CAG)
	Società Esercizi Aeroportuali S.p.A.	Milan (LIN)
		Milan (MXP)
Latvia	SJSC Riga International Airport	Riga (RIX)
Malta	Malta International Airport	Malta (MLA)
Moldova (Rep of)	LLC Avia Invest - Chisinau International Airport	Chisinau (KIV)
Montenegro	Airports of Montenegro	Tivat (TIV)
		Podgorica (TGD)
Netherlands	Amsterdam Airport Schiphol (Royal Schiphol Group)	Amsterdam (AMS)
		Eindhoven (EIN)
		Lelystad (LEY)
		Rotterdam (RTM)
Norway	Avinor	Oslo (OSL)
		Stavanger (SVG)*
		Trondheim (TRD)*
		Bergen (BGO)
		Other airports (41)*
Poland	Krakow Airport	Krakow (KRK)
	Polish Airports State Enterprise (PPL)	Warsaw (WAW)
	Poznan Airport Ltd	Poznan (POZ)
	Wroclaw Airport Co	Wroclaw (WRO)
Portugal	Aeroportos de Portugal S.A	Beja (BYJ)
		Faro (FAO)
		Flores (FLW)
		Funchal (FNC)

		Horta (HOR)
		Lisbon (LIS)
		Ponta Delgada (PDL)
		Porto (OPO)
		Porto Santo (PXO)
		Santa Maria (SMA)
Romania	Aeroportul Oradea RA	Oradea (OMR)
	Arad International Airport	Arad (ARW)
	Bucharest Airports National Company	Bucharest (BBU)
		Bucharest (OTP)
	Cluj Avram Iancu International Airport	Cluj (CLJ)
	Constanta International Airport	Constanta (CND)
	R.A. Aeroportul International "George Enescu" Bacau	Bacau (BCM)
	Regia Autonoma Aeroportul Sibiu Turnisor	Sibiu (SBZ)
	Satu Mare International Airport	Satu Mare (SUJ)
Russian Federation	Moscow Domodedovo Airport	Moscow (DME)
Slovenia	Airports Authority of India	Ljubljana (LJU)
Spain	Aena Aeropuertos S.A.	A Coruna (LCG)
		Albacete (ABC)
		Algeciras (AEI)
		Alicante (ALC)
		Almería (LEI)
		Asturias (OVD)
		Badajoz (BJZ)
		Barcelona (BCN)
		Bilbao (BIO)
		Burgos (RGS)
		Ceuta (JCU)
		Córdoba (ODB)
		El Hierro (VDE)
		Fuerteventura (FUE)
		Girona (GRO)
		Gran Canaria (LPA)
		Granada (GRX)
		Huesca-Pirineos (HSK)
		Ibiza (IBZ)
		Jerez (XRY)

		La Gomera (GMZ)
		La Palma (SPC)
		Lanzarote (ACE)
		León (LEN)
		Logroño (RJL)
		Madrid (LECU)
		Madrid (MAD)
		Malaga (AGP)
		Melilla (MLN)
		Menorca (MAH)
		Murcia (RMU)
		Palma de Mallorca (PMI)
		Pamplona (PNA)
		Reus (REU)
		Sabadell (QSA)
		Salamanca (SLM)
		San Sebastián (EAS)
		Santander (SDR)
		Santiago de Compostela (SCQ)
		Sevilla (SVQ)
		Son Bonet (LESB)
		Tenerife (TFN)
		Tenerife (TFS)
		Valencia (VLC)
		Valladolid (VLL)
		Vigo (VGO)
		Vitoria (VIT)
		Zaragoza (ZAZ)
Sweden	Swedavia AB	Gothenburg (GOT)
		Kiruna (KRN)
		Luleå (LLA)
		Malmö (MMX)
		Ostersund (OSD)
		Ronneby (RNB)
		Stockholm (ARN)
		Stockholm (BMA)
		Umeå (UME)
Switzerland	Aéroport International de Genève	Geneva (GVA)*
	EuroAirport Basel Mulhouse Freiburg	Basel (BSL)

	Flughafen Zurich AG	Zurich (ZRH)
Turkey	Fraport IC Içtas Antalya Airport Terminal Investment and Management Inc.	Antalya (AYT)
	General Directorate of State Airports (DHMI)	Adana (ADA)
		Bodrum (BJV)
		Gaziantep (GZT)
		Gazipasa (GZP)
		Kayseri (ASR)
		Trabzon (TZX)
	Istanbul Sabiha Gokcen International Airport Investment Development and Operation Inc	Istanbul (SAW)
	TAV Airports Holding Co.	Ankara (ESB)
		Izmir (ADB)
Ukraine	Boryspil International Airport	Kiev (KBP)
United Kingdom	Birmingham Airport Holdings Ltd	Birmingham (BHX)*
	Edinburgh Airport Ltd	Edinburgh (EDI)*
	Gatwick Airport Ltd	London (LGW)
	Heathrow Airport Limited	London (LHR)
	London City Airport Ltd	London (LCY)
	London Luton Airport	London (LTN)
	Manchester Airports Group	East Midlands (EMA)*
		London (STN)*
		Manchester (MAN)*

Latin America-Caribbean

Argentina	Aeropuertos Argentina 2000	Buenos Aires (AEP)
		Buenos Aires (EZE)
		Catamarca (CTC)
		Comodoro Rivadavia (CRD)
		Córdoba (COR)
		Esquel (EQS)
		Formosa (FMA)
		General Pico (GPO)
		Iguazú (IGR)
		Jujuy (JUJ)
		La Rioja (IRJ)
		Malargüe (LGS)
		Mar del Plata (MDQ)
		Mendoza (MDZ)
		Paraná (PRA)

		Posadas (PSS)
		Puerto Madryn (PMY)
		Reconquista (RCQ)
		Resistencia (RES)
		Rio Cuarto (RCU)
		Río Gallegos (RGL)
		Río Grande (RGA)
		Salta (SLA)
		San Carlos de Bariloche (BRC)
		San Fernando (SFD)
		San Juan (UAQ)
		San Luis (LUQ)
		San Rafael (AFA)
		Santa Rosa (RSA)
		Santiago del Estero (SDE)
		Termas de Río Hondo (RHD)
		Tucumán (TUC)
		Viedma (VDM)
		Villa Mercedes (VME)
Bahamas	Nassau Airport Development Company	Nassau (NAS)
Brazil	Aeroportos do Nordeste do Brasil S.A.	Aracaju (AJU)*
		Campina Grande (CPV)*
		Joao Pessoa (JPA)*
		Juazerio do Norte (JDO)*
		Maceió (MCZ)*
		Recife (REC)*
	Aeroporto Rio de Janeiro S/A	Rio de Janeiro (GIG)
	Empresa Brasileira de Infraestructura Aeroportuária - INFRAERO	Altamira (ATM)
		Bagé (BGX)
		Belém (BEL)
		Belém (BDC)
		Belo Horizonte (BHZ)
		Belo Horizonte (PLU)
		Boa Vista (BVB)
		Campo Grande (CGR)
		Carajás (CKS)
		Corumbá (CMG)
		Cruzeiro do Sul (CZS)

	Curitiba (bfhBFH)
	Curitiba (CWB)
	Foz do Iguaçú (IGU)
	Goiania (GYN)
	Imperatriz (IMP)
	Joinville (JOI)
	Londrina (LDB)
	Macapá (MCP)
	Manaus (MAO)
	Marabá (MAB)
	Montes Claros (MOC)
	Navegantes (NVT)
	Palmas (PMW)
	Parnaiba (PHB)
	Paulo Afonso (PAV)
	Pelotas (PET)
	Petrolina (PNZ)
	Ponta Porã (PMG)
	Porto Velho (PVH)
	Rio Branco (RBR)
	Rio de Janeiro (SDU)
	Rio de Janeiro (RRJ)
	Sãao Josée dos Campos (SJK)
	São Luís (SLZ)
	São Paulo (CGH)
	São Paulo (MAE)
	Santarém (STM)
	Tabatinga (TBT)
	Tefé (TFF)
	Teresinha (THE)
	Uberlandia (UDI)
	Uruguaiana (URG)
	Uberaba (UBA)
Florianopolis International Airport	Florianopolis (FLN)
GRU Airport - Concessionária do Aeroporto Internacional de Guarulhos S.A.	São Paulo (GRU)*
SPE Concessionaria Aeroeste Aeroportos S.A.	Alta Floresta (AFL)*
	Cuiabá (CGB)*
	Maranhão (OSP)*

		Rondonópolis (ROO)*
	Vinci SA	Salvador (SSA)
	Zurich Airport Brazil	Macaé (MEA)
		Vitoria (VIX)
Chile	A-port Operaciones S.A (A-port)	Antofagasta (ANF)
		Iquique (IQQ)
	Sociedad Concesionaria Nuevo Pudahuel S.A.	Santiago (SCL)*
Colombia	OPAIN S.A.	Bogotá (BOG)
	Sociedad Aeroportuaria de la Costa S.A. - SACSA	Cartagena (CTG)
Costa Rica	AERIS Holding Costa Rica S.A.	San José (SJO)
Ecuador	Corporación Quiport S.A.	Quito (UIO)
	ECOGAL S. A.	Baltra (GPS)
	Terminal Aeroportuaria de Guayaquil, S.A. - TAGSA	Guayaquil (GYE)
Guyana	Cheddi Jagan International Airport Corporation	Georgetown (GEO)
Jamaica	MBJ Airports Limited	Montego Bay (MBJ)
	Grupo Aeroportuario del Pacífico	Kingston (KIN)
Mexico	Aeropuerto y Servicios Auxiliares - ASA	Campeche (CPE)
		Chetumal (CTM)
		Ciudad del Carmen (CME)
		Ciudad Obregón (CEN)
		Ciudad Victoria (CVM)
		Colima (CLQ)
		Guaymas (GYM)
		Ixtepec (IZT)
		Loreto (LTO)
		Matamoros (MAM)
		Nogales (NOG)
		Nuevo Laredo (NLD)
		Poza Rica (PAZ)
		Puebla (PBC)
		Puerto Escondido (PXM)
		Tamuín (TSL)
		Tehuacán (TCN)
		Tepic (TPQ)
		Uruapan (UPN)
	Aeropuertos del Sureste - ASUR	Cancún (CUN)
		Cozumel (CZM)
		Huatulco (HUX)
		Mérida (MID)

		Minatitlán (MTT)
		Oaxaca (OAX)
		Tapachula (TAP)
		Veracruz (VER)
		Villahermosa (VSA)
	Grupo Aeroportuario de la Ciudad de México S.A. C.V. (AICM)	Mexico City (MEX)
	Grupo Aeroportuario del Centro Norte (OMA)	Acapulco (ACA)*
		Chihuahua (CUU)*
		Ciudad Juarez (CJS)*
		Culiacan (CUL)*
		Durango (DGO)*
		Mazatlán (MZT)*
		Monterrey (MTY)*
		Reynosa (REX)*
		San Luis Potosí (SLP)*
		Tampico (TAM)*
		Torreón (TRC)*
		Zacatecas (ZCL)*
		Zihuatanejo (ZIH)*
	Grupo Aeroportuario del Pacífico - Servicios a la Infraestructura	Aguascalientes (AGU)
	Aeroportuaria del Pacífico	Guadalajara (GDL)
		Hermosillo (HMO)
		La Paz (LAP)
		León/Guanajuato (BJX)
		Los Mochis (LMM)
		Manzanillo (ZLO)
		Mexicali (MXL)
		Morelia (MLM)
		Puerto Vallarta (PVR)
		San José del Cabo (SJD)
		Tijuana (TIJ)
Netherlands Antilles	Aruba Airport Authority N.V.	Oranjstead (AUA)
	Flamingo Airport - Bonaire International Airport N.V.	Kralendijk (BON)
Panama	Tocumen S. A.	Panama City (PTY)
Peru	Aeropuertos del Perú - ADP	Anta (ATA)
		Cajamarca (CJA)
		Chachapoyas (CHH)

		Chiclayo (CIX)
		Iquitos (IQT)
		Pisco (PIO)
		Piura (PIU)
		Pucallpa (PCL)
		Talara (TYL)
		Tarapoto (TPP)
		Trujillo (TRU)
		Tumbes (TBP)
	Lima Airport Partners S.R.L.	Lima (LIM)
Puerto Rico	Puerto Rico Ports Authority	Aguadilla (BQN)**
		Ceiba (NRR)**
		Culebra (CPX)**
		Ponce (PSE)**
		San Juan (SIG)**
		San Juan (SJU)
		Mayaguez (MAZ)**
		Vieques (VQS)**
Trinidad & Tobago	Airports Authority of Trinidad & Tobago	Tobago (TAB)
		Port of Spain (POS)
Uruguay	Consorcio Aeropuertos Internacionales S.A. - CAISA	Punta del Este (PDP)
	Puerta del Sur, S.A.	Montevideo (MVD)
Middle East		
Bahrain (Kingdom of Bahrain)	Bahrain Airport Company	Bahrain (BAH)
Iran (Islamic Republic of Iran)	Iran Airports Company	Ahvaz (AWZ)
		Bandar Abbas (BND)
		Isfahan (IFN)
		Mashhad (MHD)
		Shiraz (SYZ)
		Tabriz (TBZ)
		Tehran (THR)
		Zahedan (ZAH)
Israel	Israel Airports Authority	Eilat (ETH)
		Eilat (ETM)
		Haifa (HFA)

		Tel Aviv (TLV)
Jordan	Airport International Group (AIG)	Amman (AMM)
Qatar	Hamad International Airport (Operator)	Doha (DOH)
Saudi Arabia (Kingdom of Saudi Arabia)	Tibah Airports Operation Co. Ltd.	Madinah (MED)
United Arab Emirates	Dubai Airports	Dubai (DXB)***
North America		
Canada	Aéroport de Québec Inc.	Quebec QC (YQB)
	Aéroports de Montréal	Montreal QC (YMX)
		Montreal QC (YUL)
	Calgary Airport Authority	Calgary AB (YYC)
	City of Kelowna	Kelowna BC (YLW)*
	Edmonton International Airport	Edmonton AB (YEG)*
	Fort McMurray Airport Authority	Fort McMurray AB (YMM)
	Fredericton International Airport Authority, Inc.	Fredericton NB (YFC)*
	Greater Moncton International Airport Authority Inc.	Moncton NB (YQM)*
	Greater Toronto Airports Authority	Toronto ON (YYZ)
	Halifax International Airport Authority Halifax Stanfield International Airport	Halifax NS (YHZ)
	North Bay Jack Garland Airport Corporation	North Bay ON (YYB)*
	Ottawa Macdonald-Cartier Intl. Airport Authority Ottawa International Airport	Ottawa ON (YOW)
	Prince George Airport Authority Prince George Airport	Prince George BC (YXS)*
	Regina Airport Authority Inc.	Regina SK (YQR)*
	Saint John Airport Inc.	St John NB (YSJ)*
	Saskatoon Airport Authority	Saskatoon SK (YXE)*
	St. John's International Airport Authority	St John NL (YYT)*
	Thunder Bay International Airports Authority Inc.	Thunder Bay ON (YQT)*
	Vancouver Airport Authority	Vancouver BC (YVR)
	Victoria Airport Authority	Victoria BC (YYJ)*
	Winnipeg Airports Authority Inc.	Winnipeg MB (YWG)
United States	AFCO AvPORTS	White Plains NY (HPN)**
	Akron-Canton Airport	Akron OH (CAK)**
	Albany County Airport Authority	Albany NY (ALB)
	Asheville Regional Airport Authority	Asheville NC (AVL)
	Aspen/Pitkin County Airport	Aspen CO (ASE)**
	Augusta Aviation Commission	Augusta GA (AGS)**

Bangor International Airport	Bangor ME (BGR)**
Barkley Regional Airport Authority	Paducah KY (PAH)**
Baton Rouge Airport Authority	Baton Rouge LA (BTR)**
Billings Department of Aviation & Transit	Billings MT (BIL)**
Birmingham Airport Authority	Birmingham AL (BHM)**
Bloomington-Normal Airport Authority	Bloomington IL (BMI)**
Board of County Commissioners Palm Beach County Department of Airports	West Palm Beach FL (PBI)
Boise Airport	Boise ID (BOI)
Broward County Aviation Department Fort Lauderdale-Hollywood Intl. Airport	Fort Lauderdale FL (FLL)
Brown County Airport Department	Green Bay WI (GRB)**
Buffalo Niagara International Airport	Buffalo NY (BUF)**
Burbank-Glendale-Pasadena Airport Authority - Hollywood Burbank Airport	Burbank CA (BUR)**
Burlington International Airport	Burlington VT (BTV)**
Capital Region Airport Authority	Lansing MI (LAN)**
Capital Region Airport Commission	Richmond VA (RIC)
Cedar Rapids Airport Commission	Cedar Rapids IA (CID)
Casper–Natrona County International Airport	Casper WY (CPR)**
Central West Virginia Regional Airport Authority	Charleston WV (CRW)**
Charles M. Schulz - Sonoma County Airport	Santa Rosa CA (STS)**
Charleston County Aviation Authority	Charleston SC (CHS)
	Punta Gorda FL (PGD)**
Charlotte Aviation Department	Charlotte NC (CLT)
Charlottesville Albemarle Airport Authority	Charlottesville VA (CHO)**
Chattanooga Metropolitan Airport Authority	Chattanooga TN (CHA)**
Chicago Department of Aviation	Chicago IL (MDW)
	Chicago IL (ORD)
Chicago Rockford International Airport	Rockford IL (RFD)**
Cincinnati/Northern Kentucky Intl. Airport	Cincinnati OH (CVG)
City and County of Denver-Denver International Airport	Denver CO (DEN)
City of Abilene	Abilene TX (ABI)**
City of Albany Aviation Commission	Albany GA (ABY)**
City of Albuquerque Aviation Department	Albuquerque NM (ABQ)
City of Atlanta Department of Aviation Hartsfield-Jackson Atlanta Int'l Airport	Atlanta GA (ATL)
City of Austin Aviation Department	Austin TX (AUS)
City of Bismarck	Bismarck ND (BIS)**

City of Brownsville	Brownsville TX (BRO)**
City of Colorado Springs	Colorado Springs CO (COS)
City of Concord	Concord NC (USA)**
City of Corpus Christi	Corpus Christi TX (CRP)**
City of Dayton Department of Aviation Dayton International Airport	Dayton OH (DAY)**
City of Durango & La Plata County	Durango CO (DRO)**
City of El Paso-El Paso International Airport	El Paso TX (ELP)
City of Eugene	Eugene OR (EUG)**
City of Fresno Airports Division	Fresno CA (FAT)**
City of Garden City	Garden City KS (GCK)**
City of Idaho Falls	Idaho Falls ID (IDA)**
City of Monroe	Monroe LA (MLU)**
City of Phoenix Aviation Department	Phoenix AZ (PHX)
City of Pocatello	Pocatello ID (PIH)**
City of Redding	Redding CA (RDD)**
City of San Jose Airport Department Norman Y. Mineta San Jose Intl. Airport	San Jose CA (SJC)**
City of Springfield Airport Board	Springfield MO (SGF)**
City of Tallahassee	Tallahassee FL (TLH)
City of Twin Falls	Twin Falls ID (TWF)**
City of Waterloo	Waterloo IA (ALO)**
Clark County Department of Aviation McCarran International Airport	Las Vegas NV (LAS/HSH/VGT)
Cleveland Airport System Cleveland Hopkins International Airport	Cleveland OH (CLE)**
Columbia Metropolitan Airport	Columbia SC (CAE)
Columbus Regional Airport Authority	Columbus OH (CMH) Columbus OH (LCK)**
Connecticut Airport Authority	Hartford CT (BDL)**
Dallas Department of Aviation	Dallas TX (DAL)
Dallas Fort Worth International Airport	Dallas/Fort Worth TX (DFW)
Dane County Regional Airport	Madison WI (MSN)
Daytona Beach International Airport	Daytona Beach FL (DAB)**
Des Moines Airport Authority Des Moines International Airport	Des Moines IA (DSM)
Dothan-Houston County Airport Authority	Dothan AL (DHN)**
England Authority	Alexandria LA (AEX)**
Evansville/Vanderburgh Airport Authority	Evansville IN (EVV)**
Fairbanks International Airport	Fairbanks AK (FAI)

Flathead Municipal Airport Authority	Kalispell MT (FCA)**
Fort Wayne-Allen County Airport Authority	Fort Wayne IN (FWA)
Fort Smith Airport Commission	Fort Smith AR (FSM)**
Friedman Memorial Airport Authority	Hailey (SUN)**
Gainesville-Alachua County Regional Airport Authority	Gainesville FL (GNV)**
Gallatin Airport Authority	Bozeman MT (BZN)**
Gerald R. Ford International Airport Authority	Grand Rapids MI (GRR)**
Glynn County	Brunswick GA (BQK)**
Grand Forks Regional Airport Authority	Grand Forks ND (GFK)**
Grand Junction Regional Airport	Grand Junction CO (GJT)**
Greater Orlando Aviation Authority	Orlando FL (MCO)
Greenbrier County Airport Authority	Lewisburg WV (LWB)**
Greenville-Spartanburg Airport District	Greer SC (GSP)
Gulfport-Biloxi Regional Airport Authority	Gulfport MS (GPT)**
Harrisburg International Airport	Harrisburg PA (MDT)**
Hawaii Department of Transportation	Hilo HI (ITO)**
	Honolulu HI (HNL)
	Kahului HI (OGG)**
	Kailua-Kona HI (KOA)**
	Lihue HI (LIH)**
Horry County Dept. of Airports	Myrtle Beach SC (MYR)**
Houston Airport System	Houston TX (HOU)
	Houston TX (EFD)
	Houston TX (IAH)
Huntsville International Airport	Huntsville AL (HSV)
Indianapolis Airport Authority Indianapolis International Airport	Indianapolis IN (IND)
Jackson County	Medford OR (MFR)**
Jackson Municipal Airport Authority	Jackson MS (JAN)**
Jacksonville Aviation Authority (JAA)	Jacksonville FL (JAX)
John Wayne Airport Orange County	Santa Ana CA (SNA)
Kansas City Aviation Department	Kansas City MO (MCI)**
Kern County Department of Airports	Bakersfield CA (BFL)**
Lafayette Airport Commission	Lafayette LA (LFT)**
Lee County Port Authority Southwest Florida International Airport	Fort Myers FL (RSW)
Lehigh-Northampton Airport Authority	Allentown PA (ABE)
Lexington-Fayette Urban County Airport Board Blue Grass Airport	Lexington KY (LEX)**

Little Rock Municipal Airport Commission	Little Rock AR (LIT)
Long Beach Airport	Long Beach CA (LGB)
Los Angeles World Airports	Los Angeles CA (LAX)
Louisville Regional Airport Authority	Louisville KY (SDF)
Manchester - Boston Regional Airport	Manchester NH (MHT)**
Marathon County and Portage County	Mosinee WI (CWA)**
Maryland Aviation Administration	Baltimore MD (BWI)
Massachusetts Port Authority	Boston MA (BOS)
Memphis-Shelby County Airport Authority Memphis International Airport	Memphis TN (MEM)
Metropolitan Airport Authority of Peoria	Peoria IL (PIA)**
Metropolitan Airport Authority of Rock Island County	Moline IL (MLI)**
Metropolitan Government of Nashville and Davidson County	Nashville TN (BNA)
Metropolitan Knoxville Airport Authority McGhee Tyson Airport	Knoxville TN (TYS)
Metropolitan Washington Airports Authority	Washington DC (DCA) Washington DC (IAD)
Miami-Dade County Aviation Department	Miami FL (MIA)
Milwaukee Mitchell International Airport	Milwaukee WI (MKE)
Minneapolis-Saint Paul Metropolitan Airports Commission	Minneapolis MN (MSP)
Mobile Airport Authority	Mobile AL (MOB)**
Montrose County	Montrose CO (MTJ)**
Monroe County Airport Authority	Rochester NY (ROC)**
Monterey Peninsula Airport District	Monterey CA (MRY)
Niagara Frontier Transportation Authority	New York NY (IAG)**
New Orleans Aviation Board	New Orleans LA (MSY)
Norfolk Airport Authority	Norfolk VA (ORF)**
Northwest Arkansas Regional Airport Authority	Fayetteville AR (XNA)**
Northwest Florida Beaches International Airport	Panama City FL (ECP)**
Oakland International Airport	Oakland CA (OAK)
Oklahoma City Airport Trust	Oklahoma City OK (OKC)
Omaha Airport Authority	Omaha NE (OMA)
Ontario International Airport Authority	Ontario CA (ONT)**
Orlando Melbourne International Airport	Melbourne FL (MLB)
Palm Springs International Airport City of Palm Springs Department of Aviation	Palm Springs CA (PSP)**
Pensacola International Airport	Pensacola FL (PNS)
Philadelphia International Airport	Philadelphia PA (PHL)

Phoenix-Mesa Gateway Airport Authority	Phoenix AZ (AZA)
Piedmont Triad Airport Authority	Greensboro NC (GSO)
Pinellas County	St Petersburg FL (PIE)**
Pittsburgh International Airport Allegheny County Airport Authority	Pittsburgh PA (PIT)
Port Authority of New York and New Jersey	New York NY (JFK)
	New York NY (LGA)
	Newark NJ (EWR)
	New Windsor NY (SWF)**
Port Of Bellingham	Bellingham WA (BLI)**
Port of Pasco Tri-Cities Airport	Pasco WA (PSC)**
Port of Portland International Airport	Portland OR (PDX)**
Portland International Jetport	Portland ME (PWM)
Raleigh-Durham Airport Authority	Raleigh-Durham NC (RDU)**
Reno-Tahoe Airport Authority	Reno NV (RNO)
Rhode Island Airport Corporation	Warwick RI (PVD)
Roanoke Regional Airport Commission	Roanoke VA (ROA)**
Routt County	Hayden CO (HDN)**
Sacramento County Airport System	Sacramento CA (SMF/MHR/SAC)
Salt Lake City Department of Airports	Salt Lake City UT (SLC)
San Antonio Airport System	San Antonio TX (SAT)**
San Diego County Regional Airport Authority	San Diego CA (SAN)
San Francisco Airport Commission	San Francisco CA (SFO)
San Luis Obispo County	San Luis Obispo CA (SBP)**
Sanford Airport Authority	Sanford FL (SFB)**
Santa Barbara Airport Department	Santa Barbara CA (SBA)**
Santa Maria Public Airport	Santa Maria CA (SMX)**
Sarasota Manatee Airport Authority	Sarasota FL (SRQ)
Savannah Airport Commission	Savannah GA (SAV)**
Seattle-Tacoma International Airport	Seattle WA (SEA)
Shreveport Airport Authority	Shreveport LA (SHV)**
Sioux Falls Regional Airport Authority	Sioux Falls SD (FSD)**
Sioux Gateway Airport Authority	Sioux City IA (SUX)**
Spokane International Airport	Spokane WA (GEG)**
Springfield Airport Authority	Springfield IL (SPI)**
St. Joseph County Airport Authority	South Bend IN (SBN)**
St. Louis Airport Authority-St. Louis Lambert International Airport	St Louis MO (STL)
Stockton Metropolitan Airport	Stockton CA (SCK)**

Syracuse Hancock International Airport	Syracuse NY (SYR)**
Tampa International Airport	Tampa FL (TPA)
Ted Stevens Anchorage International Airport	Anchorage AK (ANC)**
The Peninsula Airport Commission	Newport News VA (PHF)**
The South Jersey Transportation Authority	Atlantic City NJ (ACY)**
Toledo–Lucas County Port Authority	Toledo OH (TOL)**
Tri-Cities Airport Authority	Blountville TN (TRI)**
Tucson Airport Authority Tucson International Airport	Tucson AZ (TUS)
Tulsa Airport Authority	Tulsa OK (TUL)**
Tweed-New Haven Regional Airport Authority	New Haven CT (HVN)**
Vail/Eagle County Regional Airport	Eagle CO (EGE)**
Walla Walla County	Walla Walla (ALW)**
Wayne County Airport Authority	Detroit MI (DTW)
Wichita Airport Authority	Wichita KS (ICT)
Wilmington Airport Authority	Wilmington NC (ILM)**

* Data obtained from the airports' annual reports
** Data obtained from FAA Form 5100-127 - Operating and Financial Summary
*** Data estimated by ACI

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