



**InterVISTAS**

a company of Royal HaskoningDHV

# Regional Analysis

The State of Play:  
Competition, Regulation, and Airport Charges

2022



# OVERVIEW: THE ASIA-PACIFIC REGION

## Asia Pacific

Airport ownership	46% of traffic going through airports with private sector participation
Economic regulation	More than 80% heavy handed or government approval
Pricing Till	30% dual till
LCC Market Share	26%

## PASSENGER TRAFFIC

2019 Passenger Traffic	3.38 billion passengers
Percentage of World Passenger Traffic	36.9%
Growth Rate since 2008	8.0% per year
Forecast Growth (2025–2040)	5.3% per year
2019 Cargo Traffic	47.0 million tonnes
Percentage of World Cargo Traffic	39.2%

The Asia-Pacific (ASP) region is the fastest-growing region globally and is among the fastest in future growth with current forecasts for the region at 5.3% per year (2025-2040, ahead of the global average of 4.1%) according to ACI’s World Air Traffic Forecast.<sup>15</sup> This growth rate varies across the region itself, given the diverse nature of the countries across the ASP region, and the varying levels of aviation market maturity.

In 2008, passenger traffic in the region totaled 1.45 billion.<sup>16</sup> In 2019, there were 3.38 billion passengers that went through the airports in the region, with domestic passengers accounting for more than half (66%).<sup>17</sup> Traffic more than doubled over the 11-year period. The largest air market in the region in 2019 was China (1.4 billion passengers), made up largely of domestic traffic (85%), followed by India, at approximately 350 million passengers (80% domestic).<sup>18</sup>

## GOVERNANCE MODELS

The private sector is involved in many airports in the region, with a range of investment models. In 2019, 46% of the region’s passengers travelled through airports with some form of private sector participation.<sup>19</sup> For example, Australia has had private sector participation in its major airports (full privatization) for several years. A significant number of airports in India

**THE ASIA-PACIFIC REGION HAS A MIX OF GOVERNMENT AND PRIVATE SECTOR GOVERNANCE MODELS.**

**46% OF THE REGION’S PASSENGERS TRAVELLED THROUGH AIRPORTS WITH SOME FORM OF PRIVATE SECTOR PARTICIPATION.**

<sup>15</sup> ACI World (2021) World Air Traffic Forecast 2021-2040

<sup>16</sup> – ACI World Airport Traffic Database

<sup>17</sup> – ACI World Airport Traffic Database

<sup>18</sup> – ACI World Airport Traffic Database

<sup>19</sup> Updated with 2019 Passenger Data based on - Policy Brief: Creating fertile grounds for private investment in airports, 2018, Airport Council International.

also have private sector investment, though based on a public-private partnership (PPP) model. Other notable markets with private sector participation in airports include Japan, Malaysia, and Cambodia.

## CHARGES REGULATION

Economic regulation in the Asia-Pacific region varies greatly across the many countries in the region. In some countries, airport charges are still set based on a government approval processes (for example, China). Of those that are regulated, the regulatory approach varies. Some have light-handed forms of economic oversight (e.g., Australia and New Zealand). New Zealand is an example where government weighed the benefits and costs of regulation and found that costs exceeded potential benefits (see case study). Other nations use forms of heavy-handed regulation, including price cap regulation (e.g., India).

It is also observed that regulatory formats are not static, but evolving in many cases. Private sector participation in airport management and investment is new in many countries and regulatory laws and institutions are still being established. The region's regulators have also shown a willingness to review and learn from both their own experiences and practices elsewhere. India has been evolving its price cap approach as it gains experience. Malaysia transitioned from a government process for setting charges to a new regulatory commission -- MAVCOM. It has made some preliminary rulings on charges (introducing new passenger service charge levels) but the regulatory policy is still being shaped via a consultation process.

## THE TILL ASPECT

The vast Asia-Pacific region also has considerable variation as to whether the airport regulatory approach is single versus dual till. Single till is used by some. The New Zealand and Australia approaches are dual till. India has introduced a hybrid till system, for some airports, and single till still for others.

### **CASE STUDY: NEW ZEALAND BENEFITS OF REGULATION DO NOT EXCEED REGULATORY COSTS**

In 2001, New Zealand's Minister of Commerce instructed the Commerce Commission to address three key issues that focused on whether New Zealand's major airports were subject to competitive constraints and whether market conditions were such that the Minister should recommend imposition of pricing controls on some airports. While the Commission recommended that pricing controls should be imposed on the largest airport, Auckland, the Minister ultimately rejected the recommendation. The minister considered

that the benefits of regulation, which were assessed at only 35 cents (25 cents USD) per one-way ticket, were too minor to justify the costs of imposing regulation. This decision was reaffirmed in 2016. Instead, New Zealand requires airports to provide annual disclosures of key financial and pricing data, and to consult with users on charges and on significant capital expenditure projects. There is trigger regulation in that price control sanctions can be imposed under the *Commerce Act, 2006*. The Airport company specifically cites the countervailing power of its major customers as a market constraint on any potential to abuse market power.

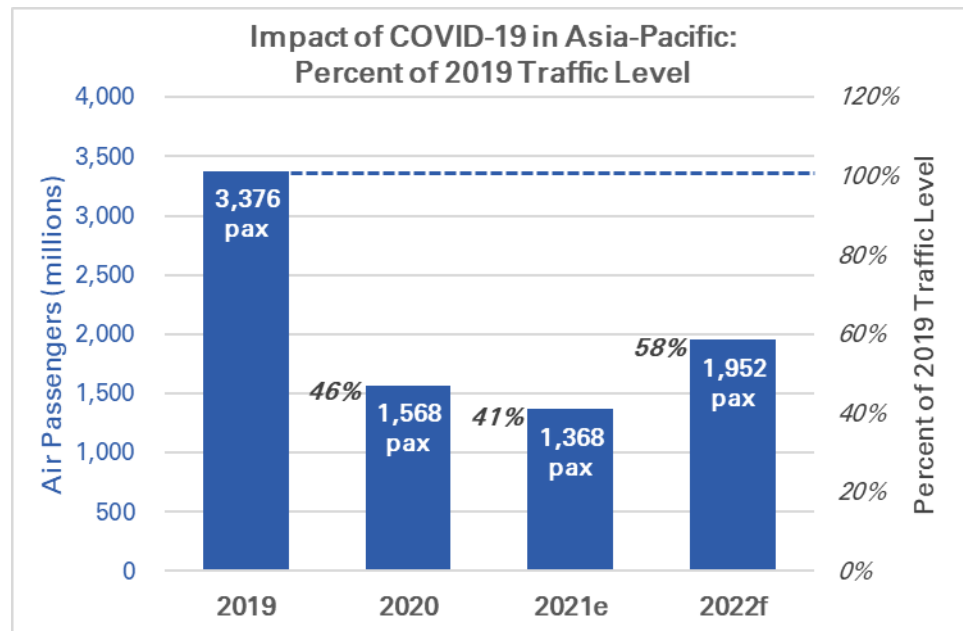
### IMPACT OF COVID-19 ON TRAFFIC AND REVENUE

2021 passenger traffic declined by 41% and aeronautical revenues declined to 31% of the region’s 2019 levels. By 2022, the region is forecast to recover to 58% of 2019 levels.

#### PASSENGER TRAFFIC IMPACT

Year	Passenger Traffic (billions)	% of 2019 Traffic Level
2019	3.38	-
2020	1.57	46.4%
2021e	1.37	40.5%
2022f	1.95	57.8%

e: estimate, f: forecast. Source: ACI Advisory Bulletin: “The impact of COVID-19 on the airport business – and the path to recovery” 24 February 2022.



e: estimate, f: forecast. Source: ACI Advisory Bulletin: “The impact of COVID-19 on the airport business – and the path to recovery” 24 February 2022.

In addition to the impact on passengers, the COVID-19 pandemic also impacted cargo operations, with an increase in cargo traffic. Based on recent data, air cargo in the Asia-Pacific region has increased 1.9% for December (YTD 2021) compared to 2019, in contrast to the drop seen in passenger traffic.<sup>20</sup> This is due to a number of factors including the increase in online shopping that has surged through the pandemic and the importance that air cargo plays in supporting the global supply chain transporting medical equipment and personal protective equipment (PPE).

### AERONAUTICAL REVENUES IMPACT

Year	Aeronautical Revenues (millions USD)	% of 2019 Revenue Level
2019	US\$56,800	-
2020	US\$26,379	46.4%
2021e	US\$17,757	42.5%
2022f	US\$24,228	58.0%

e: estimate, f: forecast. Source: ACI Advisory Bulletin: “The impact of COVID-19 on the airport business – and the path to recovery” 24 February 2022.

<sup>20</sup> ACI Asia-Pacific (2021) Monthly Traffic Report (December 2021).

**THE RAPIDLY GROWING ASIA-PACIFIC REGION WILL REQUIRE US\$1.3 TRILLION IN CAPEX BY 2040.**

**CLEAR AND PREDICTABLE POLICIES ON AIRPORT CHARGES ARE NEEDED.**

**THE REGION HAS WITNESSED A MAJOR WAVE OF NEW CARRIER FORMATION.**

**THIS INCLUDES NEW INDEPENDENT CARRIERS AND VENTURES OF ESTABLISHED CARRIERS.**

Aeronautical revenue in 2021 was less than half the level seen in 2019. Some recovery is expected in 2022, but still to only 58% of that seen in 2019. Although airports in the region have faced large revenue declines over the last two years, many airports have offered incentives and discounts to airlines.

**CAPEX**

Based on estimates from ACI, the region will require US\$1.3 trillion in capital expenditures to service the expected 8.4 billion passengers expected to flow through the region’s airports by 2040.<sup>21 22</sup> Given the level of investment that is needed to reach this target (the largest amount across the ACI regions), a clear and predictable policy on airport charges is needed, with a focus on minimizing risk to promote the needed investments.

**AIRLINE EVOLUTION**

It is important to understand what has been happening in the airline industry in the region as it has had direct impacts on airports, and to an extent, airport charges. In the last 15 years, there has been some consolidation in the airline industry, as shown Figure ASP-1.

**Figure ASP-1  
Airline Consolidation  
Asia–Pacific**



Source: InterVISTAS research of airline websites and history

For example, in Australia, Virgin Australia purchased Tigerair Australia in 2013, although that carrier was not continued after the financial reorganization of Virgin Australia during the COVID-19 calamitous drop in Australian traffic; interstate travel was largely discontinued as was most international travel.

The region has witnessed a major wave of new carrier formation. This includes independent carriers, such as Air-Asia and its related airlines, as well as established network airlines creating subsidiaries that follow an LCC

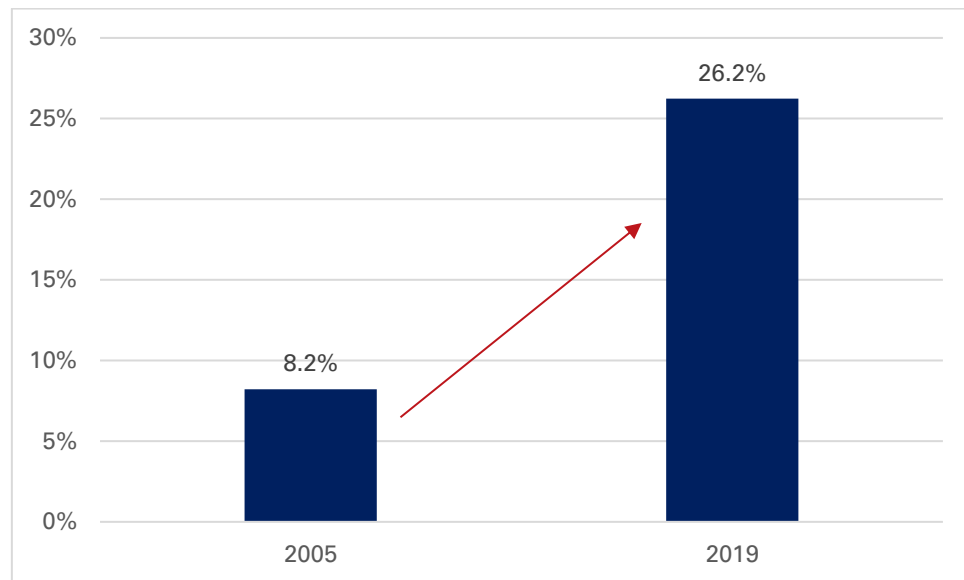
<sup>21</sup> ACI World (2021) Global Outlook of Airport Expenditure: Meeting Sustainable Development Goals and Future Air Travel Demand

<sup>22</sup> ACI World (2021) World Air Traffic Forecast 2021-2040.

business model. China Eastern, for example created an LCC, China United. It has also created a regional carrier (OTT Airlines). China Eastern acquired another Shanghai-based domestic and international carrier, Shanghai Airlines but operates it independently. Air India created Air India Express.

LCCs themselves have created subsidiaries, such as Lion Air’s creation of Malindo and Batik Air (among others). Some of the new carriers are subsidiaries created in other Asian nations to address foreign ownership limitations.

**Figure ASP-2**  
**Growth in LCC Market Share based on Seats**  
**Asia-Pacific**  
**2005–2019**



Source: InterVISTAS Analysis of Innovata Schedules Data via Diio

India, with its large domestic market, has also seen an explosion of new airlines. There are LCCs such as IndiGo and SpiceJet, and full-service carrier Vistara, a joint venture between Tata and Singapore Airlines.

Low-cost carriers tripled their market share in terms of seat capacity between 2005 and 2019, rising to 26% in 2019 from 8% in 2005. Given the projected passenger growth rates in the region, the LCC market share is likely to continue to increase as well, given the continued growth of low-cost carriers in the region, like AirAsia, Jetstar, etc. As the emerging markets continue to grow, there is likely room for LCCs to add to their market share, or to increase industry capacity.

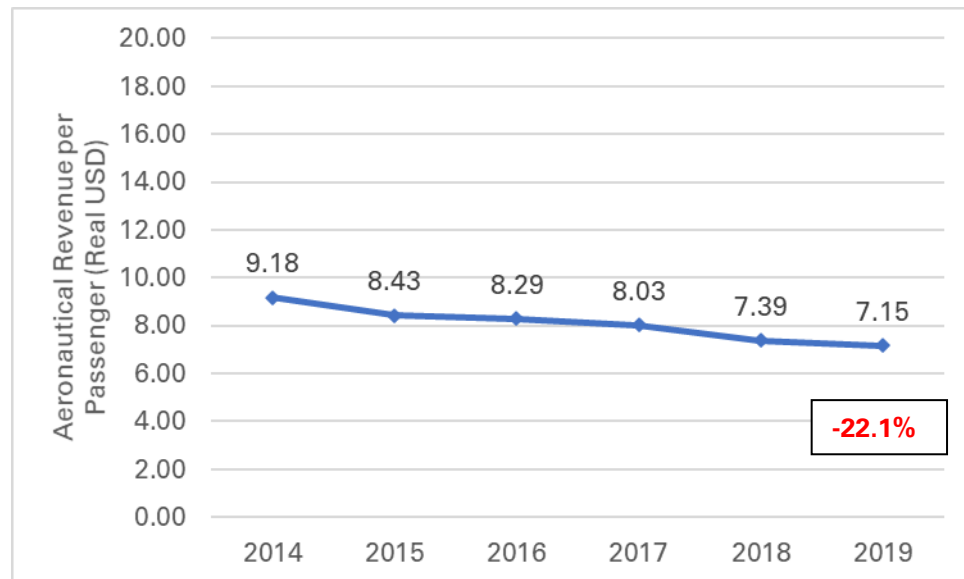
The COVID-19 pandemic has also created changes for other airlines in the region. Examples of restructuring include Thai Airways, Philippines Airlines and Hainan Airlines. AirAsia Japan discontinued operations, while Cathay Pacific announced the end of Cathay Dragon. Korean Air acquired Asiana. This is likely to result in greater countervailing power and price sensitivity of the airlines (due to consolidation, restructuring, and increased LCCs).

### AIRPORT CHARGES AND AERONAUTICAL REVENUE

The level of charges at an airport can be measured in different ways, either an average charge based on a measure such as aeronautical revenue per passenger or movement, or as a turnaround cost (i.e., the calculated charges to turn around a specific aircraft type). The following charts show the evolution of airport charges based on the aeronautical revenues reported by airports, broken down into passenger and aircraft-based revenues.

Aeronautical revenue in the Asia-Pacific region has seen a steady decline between 2014 and 2019, dropping 22% over the period.

**Figure ASP-3**  
**Evolution of Aeronautical Revenue per Passenger**  
**Asia-Pacific**  
**2014–2019**



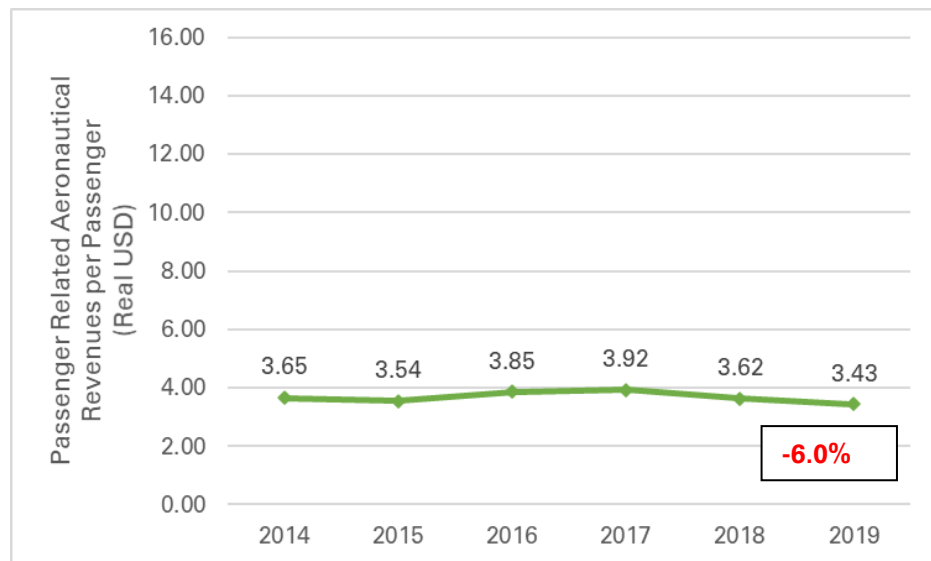
Source: ACI Economics Dataset

Note: Revenues have been adjusted to USD and inflation adjusted based on IMF figures



The average airport charge can be divided into two components: those charges levied on airlines (combination of aircraft-related charges, such as landing or aircraft parking) and from charges related to passenger volumes (most often related to passenger processing, security and facilitation). The latter transfers some risk to airports; revenues from landing charges are fixed for a given flight, while revenues that are passenger-related fall with traffic declines (and vice versa). Evidence for the Asia-Pacific region suggests that both charges components have fallen, on average, but the major decline has been in landing charges levied on air carriers (and other aircraft operators).

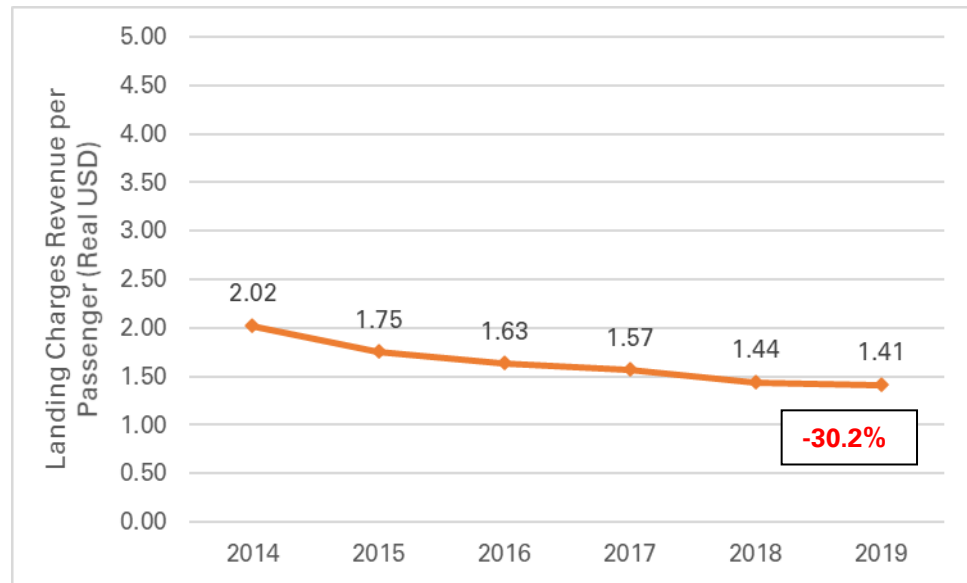
**Figure ASP-4**  
**Evolution of Passenger Related Charges Revenue**  
**Asia-Pacific**  
**2014–2019**



Source: ACI Economics Dataset

Note: Revenues have been adjusted to USD and inflation adjusted based on IMF figures

**Figure ASP-5**  
**Evolution of Landing Charges Revenue**  
**Asia-Pacific**  
**2014–2019**

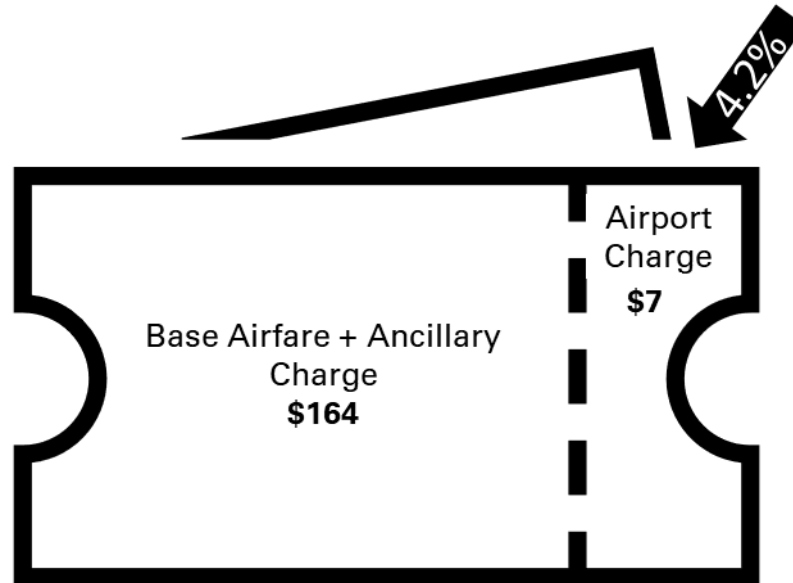


Source: ACI Economics Dataset

Note: Revenues have been adjusted to USD and inflation adjusted based on IMF figures

To understand the impact that airport charges have on airfares (and ultimately passengers), in Figure ASP-6 a base airfare has been constructed using the average base airfare in Asia-Pacific, and an estimate of airline ancillary revenue per passenger. While it would be ideal to construct an all-in airfare, including taxes and other airline fees, given the regional nature of the analysis, this would be difficult to estimate. The results shown below are conservative estimates of the percent of airport charges in airfares, as the total airfare would be a larger figure if taxes and other charges were to be added). In 2019, airport aeronautical charges accounted for only 4.2% of the constructed base airfare (airfare, ancillary charges, and airport charges). Importantly, and as already noted, this analysis does not take into account the full cost of a ticket for a passenger, which would also include taxes and other fees (such as fuel surcharges if in use). This would lower the percentage attributable to airport charges as well.

**Figure ASP-6**  
**Airport charges as percent of base airfare and airline ancillary charges**  
**Asia-Pacific**  
**2019**



Source: InterVISTAS Analysis of Sabre MIDT Airfare Data, Ancillary Revenue Data from IdeaWorks, and ACI Economics Data.

**Airport charges and airfares**

Analysis previously completed for ACI Asia-Pacific has shown that airport charges generally do not factor into the pricing decisions of airlines and the pass-through to passengers.<sup>23</sup> The key findings of the report are as follows:

- ***Airport charges represent a relatively small share of airlines’ costs.***  
 Weighted by passenger volume, 65% of passengers are carried by airlines for whom airport charges represent 4% or less of their cost base.
- ***Costs are not directly linked to airfares paid.***  
 Carriers play a sophisticated game in optimizing prices to respond to demand and competitive conditions. That is not to say that airport charges do not play any role, only that their significance should not be overstated relative to other factors.
- ***Charges have been mostly flat or decreasing over the past decade.***  
 Airline annual reports also confirm that this cost item has not been (in

<sup>23</sup> ICF for ACI Asia-Pacific (2020) Insights into the Logic of Airfares – An Asian Perspective.

most cases) growing – neither in absolute nor in relative terms – over time.

In terms of the linkages between airport charges and the airfares faced by passengers, the following has been observed:

- ***Airlines price airfares according to market fundamentals.***  
Numerous case studies demonstrated that the price of a seat can vary significantly depending on when the ticket is booked, time of travel and the levels of competition on the route among other variables. These variations in price are primarily driven by short-run demand elasticity and supply factors, not the long-run cost of operating the flight.
- ***There are numerous factors that influence how an airline will respond to changes in costs.***  
Airlines will monitor their costs at various stages of the planning and sales cycle and will consider their options in the wider context of their own business, the competition they face and the likely impact on their customers, i.e., passengers. In terms of likely outcomes, many cost changes go largely unnoticed by passengers, either because they are not passed through to fares or because they are relatively modest or occur at times or in markets where demand is price inelastic.
- ***Airlines do not always pass on cost changes to passengers.***  
The report presented several case studies that demonstrate occasions where changes in costs are not passed through to passengers, whether positive or negative. The airlines have taken a conscious decision to price to the market while absorbing small changes in operating cost base.
- ***Airport charges play a relatively small role in determining the price of an air ticket.***  
Historically, airport charges have been both less significant and less volatile than fuel, staff, or aircraft-based costs. As such, these other costs have a greater influence on airline cost bases. However, even these costs are not directly linked to airfares paid, as carriers play a sophisticated game in optimizing prices to respond to demand and competitive conditions. That is not to say that airport charges do not play any role, only that their significance should not be overstated relative to other factors.

**AIRPORT CHARGES PLAY A RELATIVELY SMALL ROLE IN DETERMINING THE PRICE OF AN AIR TICKET. WHILE AIRPORTS CHARGES PLAY A ROLE, THEIR SIGNIFICANCE SHOULD NOT BE OVERSTATED RELATIVE TO OTHER FACTORS.**

## KEY POLICY ISSUES

The airports in the region were asked about their top policy issues in light of the impacts of the COVID-19 pandemic, and the following were the top answers:<sup>24</sup>

Please select the top 3 most pressing issues regarding economic regulation and its impacts as a result of COVID-19

### ASIA-PACIFIC

#### #1 Choice

Inability to adjust prices rapidly and in a flexible manner

#### #2 Choice

Hindering needed future investments due to inadequate revenues

#### #3 Choice

Inability to adjust price cap for new, reduced forecast of traffic

**THE KEY POLICY ISSUES THE REGION FACES IS UNCERTAINTY REGARDING THE ABILITY TO ESTABLISH CHARGES THAT WILL SUPPORT THE NEEDED US\$1.3 TRILLION IN CAPEX TO SUPPORT THE FASTEST GROWING AVIATION REGION IN THE WORLD.**

The key issues raised by the airports are all linked to a common theme of risk and uncertainty regarding their ability to establish charges that will be able to finance the huge US\$1.3 trillion CAPEX required for this fastest growing region in the world.

For many airports, there is uncertainty around future investment and risk related to the regulatory models in place. There is also political risk present in the region as well. The higher the levels of risk, the more difficult it will be for private sector investment in airports.

For smaller airports, there is risk of dominance on the supply side of the market – airport networks, which allow cross-subsidization between profitable airports with smaller loss-making airports, can help alleviate this issue by sharing the risk between airports.

One concern is the lack of flexibility to adjust charges, which has been an issue specifically in response to the impact of the pandemic. For both the cases of government setting charges and the case of charges set by airports but under price cap regulation, prices cannot be easily adjusted in the immediate period of the crisis. As well, charges or price caps are linked to forecasts, but those were set pre-pandemic, and there has been a significant impact on traffic and forecasts for recovery.

In turn, the inability to adjust charges due to regulation adds a level of risk to future airport development and investments, as there is uncertainty on future

<sup>24</sup> Based on a sample of responses covering 14 airports in the region.

revenue needed to either fund those projects or attract private investment in some cases.

The Asia-Pacific region, given its varying aviation markets and levels of maturity, does not have a one-size-fits-all approach to policy issues and recommendations. The following are key policy issues within the region, in most cases specific to sub-regions or level of market maturity.

- For emerging markets in the region, predictability is important for continued growth. A streamlined decision-making process will help foster investment in the airport industry. To achieve the wider economic benefits that result from aviation, governments in emerging markets should consider policies which foster rather than impede development.
- The common use of government establishment and/or approval of charges generally does not provide sufficient incentive for long-term investments and is void of market fundamentals. While there is some movement towards consultation with industry (e.g., airports) on pricing decisions, there is still room for improvement.
- For tourism-dependent countries in the region, the classic model of government setting and approval of airport charges is not flexible to meet the needs of the market. Unless the government has specific objectives of tourism development, the airport may not have the flexibility it needs to offer incentives and set charges to develop strong air services to the region.